Society and economy in marginal zones: a study of the Levantine agricultural economy (1st-8th c. AD)

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Abstract

This thesis analyses the social and economic structures that characterised settlement in ecologically marginal regions in the Roman to early-Arab Levant (1st-8th c. AD).

Findings show that, far from being self-sufficient, the economy of marginal zones relied heavily on surplus production aimed at marketing. The connection of these regions to large-scale commercial networks is also confirmed by ceramic findings. The thesis is structured in four main parts. The first outlines the main debates and research trends in the study of ancient agrarian society and economy.

Part II comprises a survey of the available evidence for settlement patterns in two marginal regions of the Roman Near East: the Golan Heights, the jebel al-ᶜArab. It also includes a small-scale test study that concentrates on the long-term development of the hinterland of Siᶜ, a hilltop village in the jebel al-ᶜArab, which housed one of the most important regional sanctuaries in the pre-Roman and Roman period.

Parts III and IV contain the core the thesis and concentrate on the Limestone Massif of northern Syria, a region located between the cities of Antioch, Aleppo (Beroia) and Apamea. Following settlement development from the 2nd c. BC to the 12 c. AD, these sections provide a comprehensive assessment of how a village society developed out of semi-nomadic groups (largely through endogenous transformations) and was able to attain great prosperity in Late Antiquity.

Epigraphic, archaeological and literary sources attest to a vibrant milieu of small-holders who were capable of climbing the social ladder. This was made possible by the economic capabilities of the region, and especially its capacity for surplus production of wine and oil, of which the thesis offers small-scale quantitative assessments (Dehes, Sergilla). Finally, continuity of settlement after the Arab takeover of the region is explored through the archaeological evidence. Continuity, it is argued, rested on the survival of an institutional framework that could maintain security (the Umayyad and early-Abbasid caliphate) and on the availability of a regional demand for local goods.

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Abbreviations

AAES II = Butler, H.C., 1903. *Publications of an American Archaeological Expedition to Syria in 1899-1900. Part II. Architecture and other Arts*. New York: The Century Co.

AAES III = Prentice, W.K., 1908. *Publications of an American Archaeological Expedition to Syria, 1899-1900. Part III. Greek and Latin Inscriptions*. New York: The Century Co.

AAES IV = Littmann, E., 1904. *Publications of an American Archaeological Expedition to Syria, 1899-1900. Part IV. Semitic Inscriptions*. New York: The Century Co.

Adinolfi 1965 = Adinolfi, M., 1965. 'Una iscrizione greca inedita e la 'capitatio' di Diocleziano', *Oriens Antiquus 4*, pp. 71-5.

An.Ep. = *L'Année Épigraphique* (1888-). Paris: Presses Universitaires de France

Balty *et al*. 1969 = Balty, J.Ch, Chéchadé, K., Van Rengen, W. (eds.), 1969. *Mosaiques de l'église de Khirbet Muqa. Fouilles d'Apamée de Syrie – Miscellanea 4*, Bruxelles: Cent. belge de recherches archéologiques à Apamée de Syrie.

BE = Bulletin épigraphique in *Revue des études grecques* (1888-). Paris: Association des etudes grecques

Beševliev, SGLI = Beševliev, V., 1964. *Spätgriechische und spätlateinische Inschriften aus Bulgarien*. Berlin: Akademie Verlag

Callot & Gatier 2004 = Callot, O. & Gatier, P.-L., 2004. 'Les stylites de l'Antiochène', *Topoi Suppl*. 5(2004), pp. 573-96

Canivet 1971 = Canivet, P., 1971. 'Due iscrizioni greche a Huarte nell'Apamène (Siria)', *Epigraphica* 33, pp. 91-8

Canivet 1973 = Canivet, P. 1973. 'Photius archeveque d'Apamée', *Travaux et Mémoires* 5, pp.243-58

Canivet 1979 = Canivet, P., 1979. 'Nouvelles inscriptions chrétiennes à Huarte', *Travaux et mémoires* 7, pp.349-62

Castellana 1998 = Castellana, P., 1998. 'Borne cadastrale de Jaziret en Nammozi en Syrie du Nord', *SOC Collectanea* 31, pp. 145-52.

Castellana 2003 = Castellana, P. 2002-3. 'Ricerche archeologiche nella Siria del Nord', *SOC Collectanea* 35-6, pp. 89-124

CIS = *Corpus inscriptionum semiticarum* (1881-). Paris: e Reipublicae Typographeo

Clauss-Balty 2009 = Clauss-Balty, J., 2009. 'Le mausolée-tour d'Eusebios et Antoninos à Hass (Syrie du Nord)', *Topoi* 16.1, pp. 265-76.

Donceel-Voûte = Donceel-Voûte, P., 1988. *Les pavements des églises byzantines de Syrie et du Liban : décor, archéologie et liturgie* (Publications d'histoire de l'art et d'archéologie de l'Université catholique de Louvain 69). 2 vols. Louvain-la-Neuve: Collège Erasme

Gatier, *Villages* = Gatier, P.-L., 1997. 'Villages et sanctuaires en Antiochène autour de Qalaat Kalota', *Topoi* 7.2, pp. 751-775

Griescheimer 1999 = 'Le sanctuaire de Schnaan (Gebel Zawiye, Syrie du Nord)', *Topoi* 9.2, pp. 689-717

ICUR = Inscriptiones Christianae urbis Romae septimo saeculo antiquiores. Nova series (1925-).

IGLS I = Jalabert, L. & Mouterde, R. (eds.), *Inscriptions grecques et latines de la Syrie. Commagène et Cyrrhestique Nos. 1-256.* Paris: Geuthner

IGLS II = Jalabert, L. & Mouterde, R. (eds.), *Inscriptions grecques et latines de la Syrie. Chalcidique et Antiochène. Nos. 257-698.* Paris: Geuthner

IGLS IV = Jalabert, L. & Mouterde, R. (eds.), *Inscriptions grecques et latines de la Syrie. Laodicée. Apamène. Nos. 1243-1997.* Paris: Geuthner

IGLS XIII/2 = Sartre, M. & Sartre-Fauriat, A., 2011. *Inscriptions grecques et latines de la Syrie. 13 fasc. 2, Bostra (supplement) et la plaine de la Nuqrah.* Beirut: Institut Français du Proche-Orient.

Jarry 1966 = Jarry, J, 1966. 'Trouvailles épigraphiques a Saint-Symeon', *Syria* 43, pp. 105-15.

Jarry 1967 = Jarry, J.,1967. 'Inscriptions arabes, syriaques et grecques du massif du Bélus en Syrie du Nord', *Annales Islamologiques* 7, pp. 139-220.

Jarry 1970a = Jarry, J., 1970. 'Inscriptions arabes, syriaques et grecques du massif du Bélus en Syrie du Nord (suite)', *Annales Islamologiques* 9, pp. 187-214.

Jarry 1979b = Jarry, J., 1970. 'Inscriptions de Syrie du Nord relevées en 1969', *Annales Islamologiques* 9, pp. 215-21.

Jarry 1982 = Jarry, J., 1982. 'Nouvelles inscriptions de Syrie du Nord, *ZPE* 47, pp. 73-103

Jarry 1985a = Jarry, J., 1982. 'Nouveaux documents grecs et latins de Syrie du Nord et de Palmyrene', *ZPE* 60, pp. 109-115.

Jarry 1985b = Jarry, J., 1985. 'Nouvelles inscriptions sémitiques de Syrie', *Annales Islamologiques* 21, pp. 1-7

Jarry, J., 1992. Jarry, J., 1992. 'Nouvelles inscriptions de Syrie du Nord (Suite)', *ZPE* 90, pp. 103-112.

Jouejati, R. & Haensch, R., 2010. 'Les inscriptions d'une église extraordinaire à Tell Aar dans la Syria II', *Chiron* 40 (2010), pp. 187-207

Kramer, Gindaros = Kramer, N. (ed.), 2004. *Gindaros.Geschichte und Archäologie einer Siedlung im nordwestlichen Syrien von hellenisticher bis in fruhbyzantinische Zeit*. Rahden: VML.

Krencker 1938 = Krenker, D., 1938. *Die Wallfahrtskirche des Symeon Stylites in Qal'at Sim'an*. Berlin: Verlag der Akademie der Wissenschaften

Littmann 1941 = Littmannn, E., 1941. ‘Zu den Inschriften von Qal'at Sim'an' *ZDMG* 95, pp. 311-6

MAMA = *Monumenta Asiae Minoris antiqua* (1928-).

Marcillet-Jaubert 1972 = Marcillet-Jaubert, J., 1972. ‘Inscription sur Mosaique de Frikya’, *AArabSyr* 22, 151-3.

Marin *et al.*, Salona IV.2 = Marin, E., Gauthier, N. & Prévot, F. (eds.), 2010. *Salona : recherches archéologiques franco-croates à Salone. IV, Inscriptions de Salone chrétienne, IVe-VIIe siècles*. Rome & Split: École française de Rome/ Musée archéologique de Split

P.Dura = Welles, C.B., 1959. *The Parchments and papyri* (Excavations at Dura Europos. Final Report 5.1). New Haven, CT: Yale University Press

Peña *et al.*, *Barisha* = Peña I., Castellana, P. & Fernandez, R., 1987. *Inventaire du Jébel Baricha. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord*. Jerusalem: Franciscan Press

Peña *et al.*, *Wastan*i = Peña I., Castellana, P. & Fernandez, R., 1999. *Inventaire du Jébel Wastani. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord*. Jerusalem: Franciscan Press

Peña *et al.*, *Doueili* = Peña I., Castellana, P. & Fernandez, R., 2003. *Inventaire du Jébel Doueili. Recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord*. Jerusalem: Franciscan Press

P.Lond. = *Greek Papyri in the British Museum* (1893-). London.

PLRE I = Jones, A.H.M., Martindale, J.R. & Morris, J., 1971. *The Prosopography of the Later Roman Empire. Vol 1. (AD 260-395)*. Cambridge: Cambridge University Press.

PLRE II = Martindale, J.R., 1980. *The Prosopography of the Later Roman Empire. Vol.2. (AD 395-527)*. Cambridge: Cambridge University Press.

PLRE IIIA = Martindale, J.R., 1992. *The Prosopography of the Later Roman Empire. Vol. 3A. (AD 527-641). Abandanes-‘Iyad ibn Ghanm*. Cambridge: Cambridge University Press.

PLRE IIIB = Martindale, J.R., 1992. *The Prosopography of the Later Roman Empire. Vol.3B (AD 527-641). Kaladji-Zudius*. Cambridge: Cambridge University Press.

PMBZ = Winkelmann, F. *et al*., 1998-. *Prosopographie der mittelbyzantinischen Zeit*. Berlin: De Gruyter.

P.Nessana = Kraemer, C.J., 1958. *Non-Literary Papyri* (Excavations at Nessana 3). Princeton, NJ: Princeton University Press.

PPUAES II = Butler, H.C., 1919-1920. *Publications of the Princeton University Archaeological Expeditions to Syria in 1904–5 and 1909. Division II.: Ancient Architecture in Syria.* Leiden: Brill.

PPUAES III = Prentice, W.K., 1908. *Publications f the Princeton University archaeological expedition to Syria in 1904-1905. Division 3, Greek and Latin inscriptions in Syria.* Leiden: Brill.

RE = Pauly, A. & Wissowa, G. (eds.), 1839-1980. *Realencyclopädie der Classischen Altertumswissenschaft*.

Rey-Coquais 1987 = Rey-Coquais, J.-P., 1987. 'Epigraphie' in Canivet, P. & M.T., *Huarte. Sanctuaire chrétien d'Apamène (IVe-Vie siècles)*, Paris: Geuthner, pp. 47-62.

SEG = *Supplementum Epigraphicum Graecum* (1923-).

Syrie du Nord 1995-2007 = Tate, G. (ed.), 1995-2007. *Mission archéologique Syro-française de la Syrie du Nord : note de synthèse et rapport de missions*. Unpublished excavation reports.

Tchalenko III = Tchalenko, G. & Seyrig, H., 1958. *Villages antiques de la Syrie du nord. Le massif de Bélus à l'époque romaine,* volume III. Paris: Geuthner

Wadd. = Waddington, W.H.,1870. *Inscriptions grecques et latines de la Syrie*, Paris.

Yon & Gatier 2009 = Yon, J.-B. & Gatier, P.-L., 2009. *Choix d'inscriptions grecques et latines de la Syrie*, Beirut: Institut Français du Proche-Orient

Literary Sources

Aelian, *Nat.anim* = Aelian, *De Natura Animalium* = *On the characteristics of animals* (LOEB Classical Library). 3 vols. Ed. and trans. Scholfield, A.F., 1958-1959. Harvard, MA: Harvard University Press

al-Masᶜudi, *Kitab al-tanbih* = ᶜAlī ibn al-Ḥusayn Masᶜūdī, *Kitāb al-tanbīh wa-al-ishrāf*. Ed. de Goeje, M.J., 1894. Leiden: Brill.
Athen., *Deipn*. = Athenaeus, *Deipnosophistae* = *The learned banqueters* (LOEB Classical Library). 8 vols. Ed. and trans. Olson, S.D., 2006-2012. Cambridge, MA: Harvard University Press.

Barhebraeus = Gregory Barhebraeus, *Chronicon ecclesiasticum*. 3 vols. Ed. Abbeloos, J.-B. & Lamy, T.J., 1872-1877. Leuven: Peeters/ *The chronography of Gregory Abû'l Faraj : being the first part of his Political History of the World*. 2 vols. Trans. Budge, E.A.W., 1932. London: Oxford University Pres.

Cato = Cato the Elder, *De Agricultura* = *Cato and Varro: On Agriculture* (LOEB Classical Library). Ed. and trans. Hooper, W.D., 1934. Cambridge, MA: Harvard University Press

Chron.Pasch. = *Chronicon Paschale* (Corpus Scriptorum Historiae Byzantinae). 2 vols. Ed. and trans. Dindorf, L., 1832. Bonn: Weber

Columella, *de arb.* = Columella, *Res Rustica X-II: de arboribus* (LOEB Classical Library). Ed. and trans. Forster, E.S. & Heffner, E.H., 1955. Cambridge, MA: Harvard University Press

Geoponika = Cassianus Bassus, *Rerum geoponicarum libri = L'agricoltura antica. I Geoponica di Cassiano Basso*. 2 vols. Ed. and trans. Lelli, E., 2010. Soveria Mannelli: Rubbettino

Greg.Tours, *Hist.Fran*. = Gregory of Tours, *Historia Francorum = Gregorii episcopi Turonensis libri Historiarum X*. 3 vols. Ed. Krusch, B., 1937-1951. Hannover.

Ibn al-Adim, *Bughya* = ᶜUmar ibn Aḥmad Ibn al-ᶜAdīm, *Bughyat al-ṭalab fī tārīkh Ḥalab*. 12 vols. Ed. Zakkar, S., 1988. Beirut: Dar al-Fikr.

Ibn Saddad, *Aᶜlaq* = ʻIzz al-Dīn ibn Saddād, *al-Aʻlāq al-hatīra fī dikr umārā al-Sām ṿa l-Gazīra*. Trans. Eddé, A.-M., 1984. Damascus: Institut Français de Damas.
Jer.,*V.Malchi* = Jerome, *Vitae partum = Trois vies de moines : (Paul, Malchus, Hilarion)*. Ed. and trans. Leclerc, P. & Martín Morales, E., 2007. Paris: Cerf

John Eph., *Lives* = John of Ephesus, *Lives of the eastern saints* (Patrologia Orientalis 17.1; 18.4; 19.2). Trans Brooks, E.W., 1923-1925. Paris: Firmin-Didot & Cie

Lib., *Or./Ep.*= Libanius, *Orationes*/*Epistulae* = *Libanii Opera*. 12 vols. Ed. Foerster, R., 1903-1927. Leipzig: Teubner / *Selected Works* (LOEB Classical Library). 2 vols. Ed. and trans. Norman, A.F., 1969-1977. Cambridge, MA: Harvard University Press.

LP = *Liber Pontificalis*. Ed. Mommsen, T., 1898. Berlin: Weidmann/ *Le Liber Pontificalis*. 3 vols. Ed. Duchesne, L., 1955-1957. Paris: De Boccard.

Mich.Syr. = Michael the Syrian, *Chronicle* = *Chronique de Michel le Syrien*. 3 vols. Ed. and tr. Chabot, J.-B. 1899-1905. Paris: Leroux.

Nasir-i-Khusraw, *Safarnama* = Abu Muᶜīn Nāṣir ibn Khusraw, *Safarnāmah = Naser-e Khosraw's Book of travels*. Trans. Thackston, W.M., 1986. New York.

Pausanias = Pausanias, *Description of Greece* (LOEB Classical Library). 5 vols. Ed. and trans. Jones, W.H.S., 1918-1935. Cambridge, MA: Harvard University Press

Pliny, *NH* = Pliny the Elder, *Naturalis Historia*. 6 vols. Ed. Mayhoff, K., 1892-1909. Leipzig: Teubner

Salvian, *De Gub*. = Salvian, *De Gubernatione Dei* (Patrologia Latina 53). Ed. Migne, J.-P. cols. 25-158

Sid.Apol., *Ep.* = Sidonius Apollinaris, *Epistulae = Poems and letters* (LOEB Classical Library). 2 vols. Ed. and trans. Anderson, W.B., 1936-1965. Harvard, MA: Harvard University Press

Socr., *HE* = Socrates Scholasticus, *Historia Ecclesiastica = Histoire ecclésiastique.* 4 vols. Ed. and trans. Périchon, P. & Maraval, P., 2004-2007. Paris: Cerf.

Soz., *HE* 7= Sozomenos, *Historia Ecclesiastica = Histoire ecclésiastique*. 4 vols. Ed and trans. Bidez, J., Hansen, G.-C., Festugière, A.-J., Grillet, B. 1983-2008 Paris: Cerf

Theod., *HE* = Theodoret of Cyrrhus, *Historia Ecclesiastica = Histoire ecclésiastique*. Ed. and trans. Parmentier, L. & Hansen, G.C., 2006-. Paris: Cerf.

Theod., *HR* = Theodoret of Cyrrhus, *Historia religiosa = Histoire des moines de Syrie : Histoire Philothée*. 2 vols. Ed. and trans. Canivet, P., 1977. Paris: Cerf.

Theoph., *Chron.* = Theophanes, *Chronographia = Theophanis Chronographia*. 2 vols. Ed. Classen, J., 1839-1841. Bonn: Weber / *The chronicle of Theophanes Confessor : Byzantine and Near Eastern history, A.D. 284-813*. Tr. Mango, C. & Scott, R., 1997. Oxford: Clarendon Press.

Theoph.Cont. = Theophanes Continuatus, *Chronographia*. Ed. Bekker, I., 1838. Bonn: Weber

V.Sym.Styl = Vita Symeonis Stylitae = Acta Martyrum et Sanctorum. Tomus Quartus. Ed. Bedjan, P. 1894. Leipzig: Harrassowitz/ *The lives of Simeon Stylites*. Trans. Doran, R., 1992. Kalamazoo, MI: Cistercian Publications

V.Timothy = The Life of Timothy of Kakhushta (Patrologia Orientalis 216). Ed. and trans. Lamoreaux, J.C. & Cairala, C., 2000. Turnhout: Brepols

Yahya ibn Sa^{c}id, = Yaḥya ibn Sa^{c}īd al-Anṭākī, *Histoire* (Patrologia Orientalis 18). Ed. and trans. Krachkovsky, I. & Vasiliev, A., 1928. Paris: Firmin-Didot & Cie

Yaqut, *Buldan* = Yāqūt ibn-^{c}Abdullah al-Rūmī al-Hamawī, *Kitab Mu^{c}jam al-buldān*. 6 vols. Ed. Wüstenfeld, F., 1866-1873. Leipzig.

Zosimus = Zosimus, *Historia Nea = Histoire nouvelle*. 3 vols. Ed. and trans. Paschoud, F., 1971-1989. Paris: Les Belles Lettres

Preface

The research questions of this thesis focus on the causes of the intensification of settlement in marginal zones in the Levant, the analysis of the social and economic structures that emerged in these regions between the Roman and Islamic periods, and the reasons that led to their eventual depopulation.

These issues are of exceptional importance for the social and economic historian. The scale and intensity of sedentary settlement in the Byzantine Near East represent one of the most outstanding achievements of Antiquity. At the eve of the Muslim conquest, sedentary communities had conquered the rocky slopes of the calcareous and basalt massifs of the Levant, the steppe of central Syria, the arid landscapes of the Negev and the lava desert of the Leja to a degree that, in some of these regions, remains unparalleled to this day.

This phenomenon raises questions about the relationship between demographic growth, immigration, economic development and institutional intervention in the sedentarisation of the Levant. Did outsiders play an important role in the settlement of marginal zones or was settlement caused by a shift in modes of exploitation (from nomadic to sedentary)? Did the imperial administration actively encourage the sedentarisation of the Levantine countryside to better control the territory and expand the tax base? What economic regimes developed in the countryside? Did middling owners represent the majority of farmers and, if so, what living standards did they enjoy? Alternatively, should the inhabitants of the margins be regarded as masses of impoverished peasants exploited by an élite of surplus-extracting landlords? To what extent was the development of these regions due to innovation in agricultural techniques? And finally, at what point in time and what factors caused the decline of settlement in the rural East? Answers to these questions relate to our understanding of the nature of Mediterranean economy and society under Rome and Byzantium.

In this thesis, I approach these issues by looking at the expansion of settlement in the marginal zones of central Syria. As Melchior De Vogüé specified in his landmark *La Syrie Centrale* (1865-77), central Syria may be defined as the north-south strip of land that lies between the mountain chains of the Levantine coast to the west and the Syrian desert to the east. This territory comprised both fertile plains and low mountain ranges characterised by the prevalence of rocky outcrops and the scarcity of arable soil. It is on these latter regions, and particularly on the Golan Heights and jebel al-ᶜ Arab in southern Syria and on the Limestone Massif of northern Syria that this thesis concentrates. Despite numerous differences in the geology and climate of these three regions, they all may be characterised as marginal environments for

agriculture: the very limited extent of arable land, the rocky soils that require extensive surface clearance, the high degree of interannual variability in temperatures and rainfall all contribute to characterise these regions as ecologically marginal.

As this thesis demonstrates, the human responses to ecological marginality were, in many ways, remarkably similar for the three regions taken into account. In brief, the main argument of the thesis is that the sedentarisation and intensification of settlement in marginal areas was a largely endogenous phenomenon in which imperial institutions played only an indirect role, that of peacekeeper. Once safety and peaceful conditions were attained, strong economic incentives existed for nomadic or semi-nomadic communities to sedentarise. This happened not only in the Roman through to the Umayyad period (1st-8th c. AD), but also later on, under the Ayyubids (12th-13th c. AD) and Mamluks (13th-16th c. AD), when strong institutional frameworks guaranteed peace and the conditions for market exchange. Margins for profit, particularly in the production of cash crops (the olive in the southern Golan, dairy products in the northern Golan, the vine in the jebel al-ᶜ Arab, both olive and vine in the Limestone Massif) made it possible to attain considerable demographic growth. Although none of these regions survived on a monoculture – an economic strategy that would not be suited to the environmental risks posed by Mediterranean ecologies – crop specialisation did occur: the profits made by the sale of surplus wine, oil, dairy products were both used to counter shortages of other products and to improve living standards.

Thus, from the second century AD onwards, a prosperous rural society developed, which was characterised by a mixed identity in which localism and Hellenism intertwined. This society was dominated by middling owners: the urban élites, which play so prominent a part in the traditional narratives of the Roman countryside (see Part I.1), albeit present to some extent, appear to have enjoyed a comparatively minor role in the local economies of these regions (see esp. Part IV.1). Similarly, as noted above, institutions did not play an active role in the sedentarisation of the countryside, though they favoured it by ensuring peace and connectivity between regions. The latter was improved by the laying out of an extensive road network, which remains to this day the most visible form of direct imperial intervention in the countryside of central Syria. Despite this, and against the prevailing view that assigns to veteran settlement the main share in the initial occupation of marginal zones, my findings (Parts II and III) suggest that state-sponsored cadastrations were rare and circumscribed to relatively small areas. Land clearance and land division were mostly achieved by individual family groups or by villages (see Part III.3 where this issue is addressed with regard to the Limestone Massif).

The village society that thrived in the marginal zones of central Syria between the Roman and the Umayyad period likely originated from the synoikism of separate semi-nomadic clans, which aggregated in the vicinity of pockets of fertile soil or in proximity to high-place

sanctuaries. This process finds its archaeological counterpart in the evolution of housing groups, which gradually expanded until they formed a seemingly cohesive settlement (See Parts II and III.3). The emergence of forms of village identity and governance was gradual and first manifested itself in the communal involvement of settlers in religious enterprises and building projects. Between the third and fourth centuries, the village epigraphy attests to the existence of councils of elders and local magistrates (*strategoi*, *episkopoi*, *pentaprôtoi* etc.), but also of village finances (signalled by expressions such as *tôn tou koinou idiôn*) (See Parts II.2.1; IV.2). In Late Antiquity, the leadership of village communities was taken over by the village priests, who often appear in the literary sources as the intermediaries between villagers and taxmen, landlords or patrons (See Part IV.2).

The economic regime on which these villages survived was based on a polyculture coupled with crop specialisation with a strong orientation towards the market. Large urban markets surrounded the marginal zones of central Syria: the cities of Antioch, Apamea, Beroia, Chalcis, Banias, Schythopolis, Bostra and Soada created a demand for agricultural goods that was not exhausted by the sale of products grown in the fertile plains that surrounded them. Through the proxy of these large commercial centres, the products of marginal zones also entered the interregional and international markets: for example, the "Bosra wine" which the Hijazi merchants bought at Bostra was in all likelihood produced in the jebel al-ᶜ Arab (See Parts II.2.1).

The benefits that this economic regime brought to marginal zones became particularly apparent in Late Antiquity, when settlement in these areas reached its peak. Small-scale test studies of the agricultural infrastructure of Dehes and Sergilla in the Limestone Massif (Part IV.3) and Siᶜ in the jebel al-ᶜ Arab (Part II.2.2) show the scale that wine and oil production had attained in these regions, a level of production that would be scarcely justified if products were only grown for local consumption. An agricultural economy oriented toward the market was no doubt responsible for the improvement in living standards which is apparent in the expansion and amelioration of housing complexes, but also in an increased level of social and geographical mobility.

The thesis is organised as follows. Part I sums up the relevant scholarly debates and sets out the methodology of this study. Part I.1.1 is dedicated to surveying the long-standing historiographical debate on the nature of the ancient economy and, in particular, on the characterisation of its agrarian base. The purpose of this section is to identify the research questions that emerge as particularly relevant from that debate and which this study seeks to address (understanding of property patterns, institutional impact on the agrarian economy, role of markets, etc.). Part I.1.2, instead, is dedicated to the analysis of the impact that the French *Annales* school had on the study of agrarian history and on the development of landscape

archaeology: its aim is to clarify the methodological tenets on which this thesis is based (the concepts of regional ecology, marginality, longue durée, etc.). The methodology and structure of the thesis are then fleshed out in Parts I.1.3 and I.2.

Parts II, III and IV, which constitute the body of the thesis, are dedicated to the analysis of the case studies. Part II surveys the evolution of settlement in the basalt regions of the Golan Heights and jebel al-ᶜ Arab between the Chalcolithic and the Mamluk period. The very broad time frame here applied serves the purpose of describing a model of settlement development that finds more detailed analysis in Parts III and IV dedicated to the Limestone Massif. The in-depth study of the Limestone Massif is anticipated by a small-scale test study of the area of Siᶜ in the jebel al-ᶜ Arab (Part II.2.2), which highlights the processes that led to the sedentarisation of this region: here, a hilltop sanctuary founded in the pre-Roman period functioned as a centre for the aggregation of new settlers who came from both sedentary and nomadic backgrounds. Gradually, the area became more and more intensively exploited and, in Late Antiquity, its landscape featured a number of large-capacity wineries which were clearly geared toward market production.

Parts III and IV, which form the bulk of the thesis, are dedicated to the Limestone Massif of northern Syria. This region, which in Antiquity was divided between the *territoria* of Antioch and Apamea (with a small north-eastern sector probably belonging to Cyrrhus), stands as a prime example of the model of settlement development described in Part II. The area deserves particular attention not only owing to the outstanding state of preservation of its ancient villages, but also because of the wealth of the local epigraphic record, which comprises more than 400 dated inscriptions. A complete database of these texts is provided in Appendix 2 (on CD-ROM, with instructions for use at the end of this text): these inscriptions are referred to throughout Parts III and IV and shed light on issues such as the local onomastic pool, village institutions, religious customs and economic regimes.

After an analysis of the geography of the region and of the earlier literature on it (Parts III.1 and III.2), Part III.3 concentrates on studying the causes of the initial occupation of the region, which began slowly in the late Hellenistic period. It suggests that, like in the basaltic south, settlement was mostly achieved through the sedentarisation of a local nomadic or semi-nomadic element. The Romanisation of these settlers, which is apparent in the local onomastics but also in the forms of cultural representation as they appear in the funerary reliefs of the second and third centuries AD, were the result of the interconnectedness of the Massif with the nearby cities of Antioch and Apamea. A quantitatively minor, but qualitatively significant immigration of outsiders, mostly army veterans, did also play a role in the emergence of mixed local identities. As far as the economic condition of these early settlers is concerned, the evidence from the Limestone Massif suggests that they were no more than middling owners: the example of

Apollas of Rbeita, who only owned an orchard of about 1 ha is likely to reflect an economic reality that was widespread in this region.

Part IV is dedicated to the late antique expansion of settlement in the Limestone Massif. It is divided in four sections, which respectively address the impact of outside forces (the state, the imperial bureaucracy and the urban élites) on the local economy (Part IV.1); the social structures that developed in Late Antiquity, including the evidence for increased social and geographical mobility (Part IV.2 and Appendix 1); the potential of the agricultural economy, with detailed assessments of wine and oil production outputs and a discussion of transport amphorae attested in the region (Part IV.3); and, finally, the evidence for the survival of settlement beyond the Islamic conquest (Part IV.4).

In brief, the main arguments that emerge from this study of settlement development in marginal zones may be summed up as follows:

- The large-scale sedentarisation in marginal zones was determined, primarily, by a shift in the mode of settlement (i.e. from nomadism to intensive polyculture).
- This shift was largely due to the economic incentives that existed for locals to invest in the agricultural amelioration of marginal zones, which, in spite of considerable environmental risks, could yield sizeable surpluses to be marketed in the nearby urban centres.
- The permanence of these incentives was intimately bound up with the existence of strong institutional frameworks which could ensure peace and connectivity in between regions. When these conditions failed, as it happened in northern Syria after Harun al-Rashid, insecurity and the decline of urban demand for agricultural goods made it more advantageous to revert to semi-nomadism, the way of life best suited to marginal zones.
- With the exception of this fundamental, but indirect role, the state did not engage heavily in the local economies of these regions: state-sponsored centuriations were generally rare (the main exception being that of the cadastre of Kanatha, for which see Part II.2.1) as were imperial estates. When the state did appear in the countryside, it was primarily with regards to issues of taxation (e.g. Diocletian's tax reform which finds its archaeological counterpart in the Tetrarchic boundary stones).
- Urban élites, though no doubt present as landowners and rural patrons throughout the period under consideration, were not the primary drivers of the local economy. This applies to both the early Roman and the late antique period (*contra* Tchalenko 1953-8).
- The economic initiative rested, primarily, in the hands of middling owners, who lived in the stone houses so well attested in the three regions under consideration. This view stands in opposition to views recently stated by Banaji (2001) and Sarris (2006), but

also by Horden & Purcell (2000). Instead, this argument has been backed by Decker (2009) and Wickham (2005).

- Connectivity with the urban centres surrounding these regions ensured that settlers in marginal zones could make profits by addressing a large urban demand for agricultural products, but also, in some cases, for labour.
- Sale of surpluses created considerable opportunities for social and geographical mobility. This, in turn, gradually created a more complex and wealthier society, which is evidenced in an increased social stratification and a more lavish private and public architecture (mostly churches).
- Demographic growth, which was significant through the period under consideration and particularly pronounced in Late Antiquity may have resulted in diminishing returns from the land. Yet, contrary to what is generally believed (e.g. Tate 1992), this did not cause a Malthusian crisis: rather, the evidence suggests that population pressure created an incentive to labour intensification, which is witnessed by efforts to increase productivity in wine and oil presses.

In conclusion, this thesis aims to revaluate the role of middling owners in the agrarian economy of the Roman to early Islamic Levant. Although imperial institutions and urban élites did matter and were occasionally involved directly in the local economies analysed, my findings suggest that the processes that led to the intensive settlement of marginal environments in the Levant were mostly endogenous.

Part I. Settling marginal zones
Historiography and methodology

1.1. The historiography of the countryside from Niebuhr to The Corrupting Sea: *two centuries of debate*

From 1804, when Barthold Niebuhr began working on a monograph on the Roman *ager publicus*, ancient historians have never ceased to be interested by questions of agrarian history.[1] Yet, in spite of more than two hundred years of scholarship, current approaches to agrarian history rely mostly on developments that occurred in the last fifty years. Particularly important was, from the 1970s, the adoption of a synoptical approach to study long-term agrarian change from Classical Antiquity through the early Middle Ages. An early precursor of this trend was Max Weber, whose *Agrarverhältnisse im Altertum* (final version published in 1909) covered agrarian history from the Bronze Age to to the Later Roman Empire, and looked particularly at the development of the great landed estate as the stepping stone to the Middle Ages. Marxist historiography, on the other hand, concentrated on the rise and fall of the "slave mode of production" and showed little interest in late antique developments, interpreted as a relapse into earlier systems of production. The substantivist school fathered by Polanyi did promote a long-term approach, but questions of agrarian economy remained largely confined to the background. The study of the ancient countryside is greatly indebted to the development of landscape archaeology whose methodologies were elaborated initially by the British School at Rome in the post-war period. Landscape archaeologists, in turn, soon found inspiration in the work of the French *Annales* school founded by Lucien Febvre and Marc Bloch in 1929 and of which Fernand Braudel was the greatest and most influential member. The *Annalistes* had a vital role in the development of agrarian studies that focussed on the understanding of man's relationship with the environment and on the evolution of social and economic structures over the *longue durée*. The movement's lasting influence on landscape archaeology and on the study of the ancient Mediterranean landscape has found recent confirmation in the publication of Horden and Purcell's *The Corrupting Sea* (2000).

But if the *Annales* school can be credited with a formative influence on the study of the ancient countryside, much of the discourse on the agrarian history of Antiquity is bound up with the debate on the nature of the ancient economy. Given the primarily agrarian base of the ancient economy, the debate on its nature and performance has always involved the taking of a position on the economy of the countryside. Therefore, more than a century after the "Bücher-

[1] Momigliano 1982:8.

Meyer controversy", the questions that were central to those scholars remain relevant. In particular, from Rodbertus to Finley and beyond, scholars have been divided on whether we should characterise the ancient economy as market-oriented or in terms of *Naturalwirtschaft*.

In the next section (1.1.1), we will describe the chronological development of the "ancient economy" debate and the research questions that it raised with regard to the study of the ancient countryside. We will then move on to discuss how the *Annales* school influenced landscape archaeology and the understanding of ancient agrarian history (1.1.2).

1.1.1. *The ancient countryside and the "battle of the ancient economy" from the German political economists to the post-Finley debate*

In 1983, Keith Hopkins noted that the ancient economy had become "an academic battleground".[2] The war being waged was already a century old at the time of Hopkins' writing, but its effects continue to be felt to our day. As in all great intellectual conflicts, the debate on the ancient economy has produced labels for the various camps, in this case "modernists" and "primitivists". To characterise, while the modernists argue for a primarily quantitative difference between pre-modern and early modern economies (i.e. modern structures on a smaller scale), the primitivists advocate for a qualitative distinction between the periods. The dichotomous modernist/primitivist division is, of course, a simplification which was introduced around the mid-twentieth century.[3] The genesis of this debate, as many commentators have shown, was in mid-nineteenth century Germany, in an intellectual climate that favoured evolutionary views of history.[4] In this section, I shall show how the early stages of the dispute influenced our way of looking at the ancient countryside and led to the formulation of some of the central research questions in the field of agrarian history: the question of an autarchic versus a market-oriented countryside; the role of free versus slave labour; and the issue of technological change and economic rationalism in Antiquity.

The controversy on the ancient economy stemmed from a conflict between historians, economists and philosophers over the importance of social and economic evolution.[5] In the mid-19th century, the German historical school of economics defended an evolutionary theory in the forms of economic organisation. In an article dated to 1864, Bruno Hildebrand, a founder of the historical school, distinguished three phases of economic development on the basis of means of exchange: barter economy (*Naturalwirtschaft*), money economy (*Geldwirtschaft*) and credit economy (*Kreditwirtschaft*). The following year, Karl Rodbertus formulated his view that the ancient economy should be characterised as *Oikenwirtschaft* (*oikos* economy), based on the self-

[2] Hopkins 1983:ix.
[3] Mazza (1985:543ff.) attributes to Hasebroek (1928) the first use of the modernist/primitivist terminology and to Will (1954) and Pearson (1957) its initial diffusion. In 1979, Finley gathered the relevant writings of Karl Bücher and Eduard Meyer in a book (Finley 1979).
[4] See most recently Nafissi 2005:17-56.
[5] On the "theory of stages" see Hershlag 1969; for a recent synthesis and updated bibliography, see Mazza 2000:503-14.

sufficient domestic unit where money and exchanges, when they existed, were nothing but a marginal superstructure. Rodbertus was the first to clearly establish a connection between *oikos* economy and slave labour as the structural foundations of the ancient economy, a point that was to have lasting influence on figures such as Weber and Finley.[6] After Rodbertus, both Karl Bücher and Gustav Schmoller elaborated their own versions of the "theory of stages" of development. In 1876 the former – anticipating his *Die Enstehung der Volkswirtschaft* (1893) which was to be the real trigger of the controversy with historians on the ancient economy – distinguished four stages in the development of the urban economy while Schmoller argued that economic development could be divided in five phases with regard to the radius of distribution of exchanged goods.[7]

Until the early 1890s, the discussion of these models remained confined to the domain of historical economics. It was the publication of Karl Lamprecht's *German History* (1891-1909) that saw the debate over stages theory spill over into the historians' camp. Lamprecht's evolutionary view of historical change was harshly criticised by historians such as Meyer, Below and Meinecke who reaffirmed the Rankean pre-eminence of political history over social and economic history.[8] When Bücher's *Enstehung* was published in 1893, therefore, many historians were ready to challenge a theoretical framework that they believed to constitute a genuine threat to their discipline.[9] In his model of economic development, Bücher accepted Rodbertus's interpretation of the ancient economy as characterised by independent households (*geschlossene Hauswirtschaft*) where economic activity was limited to the satisfaction of the household needs.[10]

In Rodbertus' and Bücher's argument, the countryside plays a vital role. Indeed, the *oikos* of the historical economists is rooted in the countryside, and a self-sufficient agrarian economy represents the defining feature of the ancient economy. The slave labour referred to by both authors is, primarily, rural slave labour. From the outset, therefore, "primitivist" positions tended to emphasise the agrarian base of the ancient economy as opposed to the supposedly urban nature of the medieval economy. In this respect, it is important to note that Eduard Meyer's criticism of Bücher's theory aimed not only to reject the applicability of the "theory of stages" to history, but also to reinstate the city – and urban trade and manufacture – as the main features of the ancient economy.[11]

In his address to the III Congress of German historians in 1895, Meyer drew upon a large and varied body of evidence from 3rd-millennium Babylon to the Roman imperial period to undermine the theoretical tenets of *Hauswirtschaft*, namely the centrality of the agrarian

[6] Hildebrand 1864:4-8; Rodbertus 1865-7.
[7] On Bücher's article of 1876, see Mazza 2000:509 n. 36; Schmoller 1884.
[8] Mazza 2000:537-42. See, for example, Below's critical review of the first three volumes of the *German History*: Below 1893.
[9] See Meyer's address to the III Congress of German historians: Meyer 1895:697 (tr. it. 1905:3).
[10] Bücher 1893 (eng. tr. 1901:90).
[11] For an introduction to Meyer's intellectual background see Momigliano 1981.

element; the pervasive nature of slave labour and the absence or irrelevance of trade and manufacture for the market. To stages theory, Meyer opposed a view of history as a succession of cycles, comparing the Greek "Middle Ages" of the Homeric period to the early Middle Ages, 7th- and 6th-century Greece to 14th- and 15th-century Europe and Thucydides' Greece to the 16th century.[12] The economic experience of Antiquity, Meyer held, had only differed from the modern one because of its failure to develop, out of the city-state, a fully-fledged national economy.[13]

In Meyer's reconstruction of the ancient economy, the countryside becomes almost marginal. While the ancient city, as a centre of trade and manufacture determines economic progress, the countryside represents backwardness.[14] Despite his urbanocentric bias, Meyer did discuss agrarian issues when treating 2nd- to 3rd-century Rome. He noted that, while the slave estate declined as a consequence of the *pax romana* and slave manumissions, the great estate continued to grow, pushing small holders into crisis. Slaves were replaced by *coloni* who, albeit technically free, could not develop into a class of independent agriculturists. He also pointed out that the extension of cash crops to the detriment of grain cultivation risked exposing society to famine. While these aspects were ascribed to a general decline, Meyer's uneasiness with agrarian history meant that he refrained from identifying these factors as the reason for the fall of Rome.

A more organic inclusion of agrarian conditions in the debate on the ancient economy was achieved by Max Weber, whose viewpoint was influenced by his doctoral studies on Roman agrarian history.[15] Weber's Freiburg lecture entitled *Die sozialen Gründe des Untergangs der antiken Kultur* (1896) represented one of the key points in the unfolding of the controversy over the nature of the ancient economy. In this essay, as Nafissi has recently remarked, Weber succeeded in upholding a primitivistic view of the ancient economy – in the wake of Bücher – while at the same time accepting much of Meyer's empirical criticism.[16] Following Meyer, he stressed the essentially urban character of the ancient economy, while at the same time characterising it in terms not dissimilar to those of Bücher's *Stadtwirtschaft*.[17] But Weber's urban economy is constituted by the antinomy between city and countryside, whereby the former was engaged in trade while the latter was characterised by natural economy. Quantitatively, the *Naturalwirtschaft* of the countryside always represented, for Weber, the

[12] Meyer 1895:700; 716 (tr. it. 1905:7; 24).
[13] Meyer 1895:714 (tr. it. 1905:21).
[14] Meyer 1895:727 (tr. it. 1905:35). Meyer's neglect of the countryside is also noted by Momigliano 1981:395-6.
[15] His *Agrarian History* (1891) was written under the influence of both Mommsen and Meitzen. For a comparative reading of the *Agrargeschichte* and *Die sozialen Gründe* see Capogrossi Colognesi 1990:109-19.
[16] Nafissi 2005:58.
[17] Weber borrowed from Bücher the concept that *Stadtwirtschaft* was characterised by direct exchange between producers and consumers and applied it to Antiquity. Weber 1976:391.

norm in Antiquity.[18] However, Weber did accept that a market orientation could temporarily develop in the countryside. This was achieved via the development of the slave estate, which according to him characterised the only dynamic element in the Roman economy.[19] The low cost of slave labour – whose supply was fuelled by continuous warfare – made it more convenient than free labour. In an economic system based on slaves, Weber accepted Bücher's notion that division of labour – and therefore progress – could only be obtained by accumulation of ever-larger labour forces. The fact that it was fairly easy to accumulate labour slowed technological advances, a point that will be reprised at later stages of the debate with significant repercussions on agrarian studies as well.

Weber claimed that surplus production was chiefly achieved by slave estates concentrating on cash crops (primarily wine and oil), while grain production was left to tenants (*coloni*) to whom less fertile land was leased in exchange for cash rents.[20] In other words, Weber configured an élite monopoly over the production of cash crops, a theory that was to have important repercussions on later developments of the debate (see below). .

The connection between slave estate and market production inevitably meant that surplus was doomed as soon as slave supplies dried up and landowners were forced to allow slaves to keep a family and property so as to reproduce themselves. This marked the beginning of a development by which slave labour was gradually replaced by tenant labour, with *coloni* increasingly tied to the land that they cultivated. In a key, but rather shady passage, Weber argued that "it was impossible to maintain market production (…) with labour services of tenants, given ancient transportation. The disciplined slave labour of the barracks was indispensible for market production".[21] In essence, while accepting the existence of free labour in Antiquity, Weber was unwilling to believe that it could be conducive to a market economy. The entrepreneurial smallholding peasantry, on which my thesis concentrates, was foreign to the scholarly debate of this period.

A final point of Weber's argument in *Die sozialen Gründe* is that the urban economy was coastal in character. For him, international trade – which defined the ancient urban economy – could only be conducted along sea routes, since transport costs rendered it impossible in the interior. Thus, when the increasing independence of big estates shifted the balance of the economy from the coasts inland, international trade could no longer be maintained and the natural economy prevailed.[22]

In the fifteen years following the Freiburg lecture, Weber nuanced his views with regard to the economic development of Antiquity, something that becomes apparent by looking at the

[18] Weber 1976:391-2.
[19] Weber 1976:395.
[20] Weber 1976:396-7.
[21] Weber 1976:403.
[22] Weber 1976:392; 410.

theoretical progress detectable in the three editions of the *Agrarverhältnisse im Altertum*[23] In the introduction to the third edition of this work, Weber returned on many of the controversial points of *Die sozialen Gründe*.[24] From the vantage point of a theoretical approach based on the *Idealtypus*, Weber was now quite willing to amend his earlier argument. Thus, overland trade is now acknowledged alongside sea trade among the forms of ancient capitalist investment, though the former is conveniently said to have been strictly localised in time and space.[25] Furthermore, Weber accepted that he had in the past underestimated the quantitative importance of free labour, adding that "Antiquity knew not only the unfree and half-free, but also the free peasant *as owner or tenant or share cropper* (my italics)".[26] Smallholders were finally emerging from obscurity. Yet, in equating the economic significance of the slave-estate in the western part of the Empire with that of the tenant-operated estate in the East, Weber continued to acknowledge that economic dynamism in Antiquity rested on the big landed property. Private initiative on a small scale was only given credit in the domain of urban manufacture.[27] Thus, in spite of generally remarking that "small farming was certainly dominant in ancient agriculture", Weber did not assign to it a significant economic role: the cultivation of cash crops, for example, was again attributed to the slave estate. Finally, although the explicit statement that market production could only be achieved with slave labour is removed in *Agrarverhältnisse*, Weber still regarded the development of colonate (itself caused by the end of market economy) as the main cause for the end of the urban capitalist economy.[28]

To sum up, Weber's *Agrarverhältnisse* acknowledged that free-holding peasants may have been in the majority, but it also confined them to the economic background of *Naturalwirtschaft*; the large estate alone could maintain market production. Even land magnates, however, could not in the long run maintain surplus production: the drying up of the slave supply and the following rise of the late antique colonate brought all market production to a halt. From the point of view of agrarian history, the "Weberian settlement" of the controversy at the beginning of the twentieth century characterised the countryside as dominated by *Naturalwirtschaft*.[29] Big estates were regarded as the most widespread form of agrarian organisation. They were also the most profitable form of land investment and the only one to ensure an increase in productivity – when operated with the aid of slave labour. Free labour and small property were accepted, but their economic significance was, on the whole, downplayed.

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[23] For Weber's progress from *Die sozialen Gründe* to the third edition of *Agrarverhältnisse* see again Capogrossi Colognesi 1990:134-55. See also Nafissi 2005: 67-123.
[24] Weber 1976:37-79.
[25] Weber 1976:40; 51.
[26] Weber 1976:47. Weber explicitly mentions Ulrich Wilcken and his studies on Egypt as the main source for his revaluation of the importance of free labour in Antiquity.
[27] Weber 1976:48.
[28] Weber 1976:366.
[29] I borrow the expression "Weberian settlement" from Nafissi, who has argued that Weber's main objective with *Agrarverhältnisse* was "to settle the *oikos* controversy" (Nafissi 2005:92). For a critical reception of this argument see Capogrossi Colognesi 2009.

Between the second and third edition of *Agrarverhältnisse*, M.I. Rostovtzeff made his first contribution to the debate on the nature of the ancient economy. In an article that appeared in 1900, he looked at the agrarian conditions of Ptolemaic Egypt, Roman Italy and the Roman Empire in succession, downplaying the role of slavery, which he considered "an artificial form of economic management, neither characteristic of nor organic to ancient economic life".[30] Against slave labour and the late antique colonate, which he crucially put on the same plane (and implicitly compared to contemporary Russian serfdom), Rostovtzeff upheld the role of small ownership and free tenancy as the true constituents of the ancient agrarian economy.[31]

In his discussion of the Roman economy, the Russian historian followed the generally accepted view that the rise of the slave estate had caused the crisis of the Italian peasantry: smallholders who cultivated grain had been replaced by large slave-worked estates that focused on the production of cash crops.[32] The prevailing view that saw smallholders as unable to thrive in a polyculture with a market orientation was also upheld. However, in contrast to Bücher and Weber, Rostovtzeff regarded the slave estate as an ultimately negative and unstable form of capitalist investment which he countered with the "positive" State capitalism introduced by the emperors during the Principate (in imitation of the Hellenistic kingdoms).[33] Fighting rationally against the *latifundium* and slave labour, the emperors "nationalised" land ownership, thus re-founding the small and middling peasantry by means of emphyteutic leases and by creating a new stratum of small owners who, in turn, employed tenants rather than slaves on their lands.[34]

Despite recognising the economic importance of smallholders in Ptolemaic Egypt and during the Principate, Rostovtzeff ultimately confined the capacity for economic initiative to the State. Thus, when the State became unable to direct the agrarian economy, agriculture relapsed to a condition of natural economy, with the reappearance of the *latifundium* and slavery (this time in the form of tenants bound to the land). The causes that led to this process, left almost unexplained in his article of 1900, would be reprised in *The Social and Economic History of the Roman Empire* (1926), though from a completely different perspective: in a famous portrayal that recalled more the conditions of modern Russia than those of third-century Rome, Antiquity is made to end in a tumultuous class struggle between *honestiores* and *humiliores*, between the urban bourgeoisie and the countryfolk.[35]

Interrupted by the Great War, the controversy on the ancient economy broke out again in the 1920s and 1930s, with Rostovtzeff and Hasebroek respectively emerging as the main proponents of the modernist and primitivist approaches. However, by this time the debate had

[30] Rostovtzeff 1900 (tr. fr. 1987:35).
[31] Rostovtzeff 1900 (tr. fr. 1987:24-5). This article also contains Rostovtzeff's first clear enunciation of his theory concerning the economic role of the State in Antiquity.
[32] Rostovtzeff 1900 (tr. fr. 1987:30).
[33] The slave estate was conducive to what Rostovtzeff later termed "feudal capitalism":Rostovtzeff 1957:xii. See also Rostovtzeff 1910 (tr. it. 1994:99-104).
[34] Rostovtzeff 1900 (tr. fr. 1987:37).
[35] Reviewers were quick to note that Rostovtzeff was influenced by the experience of the Russian revolution. As Hugh Last famously remarked "Modern Russia is not ancient Rome": Last 1926:127.

become mostly concerned with ancient capitalism, the validity or rejection of which was determined by competing views on trade and traders, while agrarian questions were either forgotten or left in the background.[36] However, Hasebroek's insistence on the importance of understanding the ancient economy through the lens of political life anticipated a shift in the methodological base of the debate that was to find its fullest expression in Karl Polanyi's 'marketless' conception of the ancient economy.

Polanyi's most influential work, *The Great Transformation* (1944), expounded a new theory of historical development which opposed the prevailing view about the inevitability of the rise of market capitalism. For Polanyi, a market economy had only fully emerged in the nineteenth century, while other explanations had to be sought to understand the movement of goods in earlier societies. To do so, he borrowed from anthropology the concepts of reciprocity and redistribution, which for him explained the bulk of exchange up to the end of the Middle Ages.[37] To substantiate these views, Polanyi and his team began working on ancient societies, an effort that resulted in the publication of *Trade and Markets in the Early Empires* (1957). That this work was conceived to shed new light on the old controversy of the ancient economy is made clear by Pearson's introductory review of the *oikos* debate, which concludes by noting that the evidence for movement of "slaves, grain, wine, oil, pottery" did not in itself prove that the ancients had had genuine markets.[38] The following essays aimed at showing how self-regulating markets had not begun to develop until at least the time of Aristotle, who, in the *Oeconomicus*, tried "to master theoretically the elements of a new complex social phenomenon in *statu nascendi*".[39] Although Aristotle's traders were "genuine" traders in that they made a profit on price differentials, it was not until the third century BC that the law of supply-demand-price found expression in the market of Delos.[40] Even then, markets remained of limited relevance to the ancient economy.

Besides upholding the self-sufficient nature of the agrarian sector Polanyi's economic theory added little to the understanding of agrarian conditions in Antiquity. Yet, his variant of primitivism that insisted on the embeddedness of the ancient economy in social and political life (the so-called 'substantivist' approach) and his emphasis on non-commercial exchange greatly influenced Moses Finley's research agenda.[41]

Finley's attention to problems of agrarian history may be traced as far back as his doctoral thesis on the Athenian *horoi* (published in 1952), but it is with his article on technological

[36] On Hasebroek's works see Gernet 1933; Will 1954:13-6. Some remarks on Rostovtzeff and Hasebroek are also found in Pearson 1957:9-10.
[37] On Polanyi's theory of history and his debt to anthropology see Nafissi 2005:149-72.
[38] Pearson 1957:8.
[39] Polanyi 1957b:67. For Polanyi's view of Bronze Age marketless economies see Polanyi 1957a.
[40] Polanyi 1957b:87.
[41] The impact that Polanyi had on the development of Finley's research agenda cannot be denied and was acknowledged by Finley himself on a number of occasions (e. g. his 1985 interview with Keith Hopkins: Finley 1985b:2-6). Despite this, Finley openly disagreed with many of Polanyi's views: Nafissi 2005:210-34.

innovation (1965) that he began to tackle agrarian problems – and, more broadly, the underpinnings of the ancient economy – from a holistic perspective. In this article, Finley emphasised – in continuity with Hasebroek and Polanyi – the importance of looking at the landowner's mentality to understand his economic behaviour. For Finley, the lack of a genuine economic thought, coupled with the availability of dependent labour were the main causes for the lagging technology of Antiquity. Land magnates are said to have been rentiers, with no interest in those innovations that may have brought more profit: "their energies went into spending their wealth, not making it".[42] Consequently, following Mickwitz, he rejected the proposition that ancient agronomists had displayed any sort of economic rationalism in their writings.[43] The issues raised by this article (lack of economic thought/rationalism and availability of dependent labour as causes for lagging technology) received fuller treatment in Finley's landmark *The Ancient Economy* (1973; 2nd ed. 1985), where he returned on questions of landed property and agrarian economy. In the chapter entitled "Landlords and peasants", Finley distinguished two main categories of land holdings: those of the small peasantry (and smallholding tenants) and those of the magnates. Finley, like the Weber of *Agrarverhältnisse*, recognised the pervasive nature of smallholdings and free labour in Antiquity, but – like his predecessor – he believed their material conditions to pose an insurmountable obstacle to their own amelioration. A small farm of 10 *iugera* might have been able to feed a family, Finley held, but it was not big enough to grant full-time employment to all the members of the household. High unemployment ensued to an extent that the demand for seasonal labour was only partially capable to absorb. The smallholding peasantry was believed to be locked in subsistence farming, with crop diversification (instead of specialisation) being the rule. While accepting the existence of peasant markets, Finley regarded them as little more than occasions for barter, arguing that "the paucity of coin finds in genuinely rural areas is no accident".[44] Although subsistence farming ruled out cash crop production, Finley conceded that, granted a large demand nearby (city, shrine, army camp), peasants could occasionally turn to oil and wine production.[45] He returned elsewhere on this issue, noting that small freeholders were capable of "petty commodity production and small scale trading in the cities".[46] Yet, this would have been a cursory exception: the supply of the city-shrine-camp demand would have soon fallen in the hands of the wealthier landlords, and there is no doubting that Finley – like Marx, Bücher and

[42] Finley 1965:39.
[43] Finley 1965:40; Mickwitz 1937.
[44] Finley 1985a:107.
[45] Finley 1985a:107. In a recent reappraisal of the views of Rostovtzeff and Finley, Richard Saller (2005:223-5) has referred to this statement as well as to Finley's 1972 lecture entitled 'Anthropology and the Classics' (Finley 1975:117) to argue that Finley accepted the existence of markets and that peasants could specialise on cash crops if close enough to a large demand centre. But peasant surplus production is in *The Ancient Economy* regarded as the exception, not the rule, and the Weberian research agenda outlined in 'Anthropology and the Classics' was soon discarded in favour of the more radical primitivism of Finley's later works. On this aspect see Nafissi 2005:232-56.
[46] Finley 1980:82.

Weber before him – regarded them as the only element of economic dynamism in Antiquity.[47] This dynamism, however, produced little more than the steady growth in the size of estates: as already noted in the article on technological innovation, "large incomes, absenteeism and its accompanying psychology of…landownership as a non-occupation…all combined to block any search for radical improvements".[48] In the absence of increases in productivity, the growth of large estates depended on the acquisition of larger labour forces. Finley upheld the centrality of dependent labour in the ancient economic process, a key aspect of the primitivist stance, but – in opposition to his predecessors in either camp of the *oikos* debate – he circumscribed the role of slavery in time and space. In *Ancient Slavery and Modern Ideology* (1980), Finley observed that chattel slavery had only prevailed for short periods of time in Classical Antiquity, even then being always accompanied by other forms of dependent and free labour.[49] Consequently, he rejected, in opposition to a certain trend common among Marxist historians, the viability of concepts such as a "slave-owning society" and "slave mode of production" for Antiquity at large.[50]

From the late 1970s, the work of Finley's close associates and pupils (the so-called "Cambridge School") contributed to making his views a generally accepted orthodoxy.[51] Particularly influential have been the works of Garnsey, Whittaker and Hopkins.[52] Peter Garnsey's *Famine and Food Supply in the Greco-Roman World* (1988) has contributed most to the study of the agrarian economy, and especially to the economic strategies of smallholders, tenants and other free labourers. In this work, Garnsey recognised the centrality of the self-sufficient peasantry in the economy of the Greco-Roman world and portrayed the ancient smallholder as pursuing a low-risk strategy of production that involved fragmentation of holdings and polyculture to offset climate variability and foraging in uncultivated areas to supplement food production. Moreover, Garnsey argued for the complementarity of storage and exchange: while the peasant regularly produces a "normal surplus" to be stored to make up for

[47] In opposition to the immobility and unchanging conditions of smallholdings, Finley put the evolving nature of the *latifundium*: "For movement, one must look at the upper classes" (Finley 1985a:99).
[48] Finley 1985a:109.
[49] Finley 1980:78-9.
[50] The obsession of Marxist historiography with the role of slavery and the "slave mode of production" in Antiquity was not, as some commentators have noted (e. g. Mazza 1978), a product of genuinely Marxian thought (as acknowledged by Finley himself, Finley 1980:40-1; *Id.* 1985a:184). Rather than from Marx himself, therefore, the emphasis given by Marxist historiography to the "slave mode of production" derived from the Stalinist formalisation of the "theory of the five stages", in which Antiquity was defined by such mode of production and by the class struggle between slave owners and slaves. It is this form of dogmatic Marxism that was challenged at the International Historical Congress of Stockholm in 1960, and it is in opposition to this dogma that Finley himself developed his views on slavery (Finley 1980:63). See Carandini 1979.
[51] As Hopkins triumphantly noted: Hopkins 1983:xi.
[52] See Garnsey's studies on malnutrition and food crises in the Greco-Roman world: Garnsey 1988; 1998; 1999. Whittaker's research on non-commercial exchange and frontiers:Whittaker 1983; 1994; 2004. Hopkins's most famous work concerns his "taxes and trade" model of the ancient economy (Hopkins 1980; 1997 (2002)). See also the co-edited volume Garnsey *et al.* 1983.

lean years, surplus goods are also traded for goods of which there is a deficiency, mostly by means of reciprocal exchange.[53]

The last fifteen years of studies on the ancient economy have seen a gradual shift away from the methodology and ideas of the "Cambridge school": though, as Jean Andreau has noted (1995), the research questions remain "Finleyan", the answers given increasingly differ from the orthodoxy of the 1970s and 1980s.[54] With the sophistication of archaeological investigations, Finley's views have been increasingly criticised for their reliance on literary sources, the product of an élite mentality whose real impact on the economy is questionable.[55] Moreover, the growing degree of local variability in the material evidence makes the notion of a single "ancient economy" less and less viable. Thus, while Antiquity may have not seen an integrated market system like that of the nineteenth and twentieth century, "marchés partiels" existed and must be investigated.[56] The volume of inter-regional trade and diversity of commercial networks, which Finley downplayed and his associates (e.g. Whittaker) sought to explain in non-commercial terms, can be increasingly appreciated thanks to the improvements in the study of pottery typology and archaeometry. The development of field survey techniques has made it possible to understand how settlement was distributed in the countryside and has generated a whole range of new problems (e.g. can we distinguish a villa from a farm with the aid of the ceramic evidence?).[57]

These developments in archaeology have allowed a much better appreciation of the scale of commercial exchange, the degree and scale of monetisation and the conditions of settlement, sparking a new wave of "modernising" studies that have introduced new research questions. Rather than with Finley, Scheidel and von Reden's *The Ancient Economy* (2002) opened with a quotation from D. North's *Structure and Change in Economic History* (1981), and called – in the wake of New Institutional Economics (NIE) – for research to concentrate on the study of economic performance and institutional impact on economic growth.[58] This call has been heeded by the Oxford Roman Economy Project (OXREP 2006-), whose declared aim is to study economic performance by assembling quantitative data for four main areas of interest: demography, agriculture, trade and monetisation.[59] Albeit no mention of Finley is made in the editors' introduction to the first monograph of the OXREP (*Quantifying the Roman Economy*, 2009), the emphasis placed on the study of regional variation and particularities stands in clear opposition to Finley's search for ideal types and prevailing features. [60] The project's goal of

[53] Garnsey 1988:48-58.
[54] Andreau 1995:948. The continuing influence of Finley is signalled by the (often polemical) reference to his works in the opening pages of recent studies on aspects of the ancient economy: e. g. on technology (Greene 2000) or the concept of market economy in Antiquity (Temin 2001).
[55] Scheidel & von Reden 2002:3.
[56] Andreau 1995:949.
[57] On this issue see Cartledge 1998 (2002:20-2).
[58] Scheidel & von Reden 2002:1.
[59] Bowman & Wilson 2009:6.
[60] Bowman & Wilson 2009:8-9.

studying economic integration and growth (achieved via a combination of economic policies, technological innovation and institutional stimuli) is symptomatic of a new approach to the ancient economy. [61]

A citation from Douglass North's seminal book also opens the *Cambridge Economic History of the Greco-Roman World* (2007). Although Finley is here gracefully acknowledged, the editors' Introduction leaves no doubt as to the employment of a radically different perspective: the study of economic performance has displaced that of cultural and social superstructures on the centre stage of analysis. As the editors recognise, the increasing body of material evidence has made it clear that the ancient economy "did not just support a small elite in luxury; it raised living standards…for tens of millions of peasants and city dwellers".[62] Faithful to North's call for studies of "structure and performance of economies through time", this new research agenda explores population growth, increase in consumption levels and exchanges over the long term, but also the impact of institutions (property rights, the government) and improvements to the 'stock of knowledge' (technology, transport costs) on economic growth. Although no section of the *Cambridge Economic History* is specifically dedicated to agrarian conditions, regional and thematic chapters refer to drastic improvements in agricultural technology and market-oriented production as a necessary strategy for both large and small landowners to offset the dangers of climate variability.[63]

It may be appropriate to conclude this survey of the "ancient economy" debate with a book that brings us closer to the geographical area covered by this thesis. Decker's *Tilling the Hateful Earth* (2009) combines a study of the ancient agronomic literature with a detailed assessment of the archaeological evidence for settlement in the rural regions of the late antique Near East. The book also provides a quantitative assessment of the economic potential of agrarian enterprises. Small and middling owners are at the centre of Decker's portrayal of the Levantine countryside, which stresses mixed farming and limited specialisation as the key factors to explain settlement expansion in marginal lands. Thus, after demonstrating that holdings such as Michael's Farm – a site in the southern Negev controlling as little as 0.7 ha of land – could not have yielded enough grain to maintain a family of six, Decker goes on to suggest that specialisation in wine and oil production may have provided the only viable answer for smallholders. Cash crops, rather than being a prerogative of large estates, were widely adopted by villagers and peasants and "could have provided livelihoods a long way above subsistence".[64]

We have come a long way since the late nineteenth century, when Karl Bücher and Eduard Meyer kindled the controversy on the nature of the ancient economy. This brief survey of the main phases of the debate has helped us to highlight how some of the underlying research

[61] The upcoming volume in the OXREP series (Bowman & Wilson, forthcoming) promises to apply these new approaches to Roman agriculture.
[62] Scheidel *et al.* 2007:6.
[63] Respectively Schneider 2007:152-9; Kehoe 2007:550-2.
[64] Decker 2009:215.

questions came to be formulated and how new trends have come to the fore in the attempt to move beyond the positions and interests of the Finley school. With specific regard to issues of agrarian economy, we may sum up old and new research questions as follows:

i) Property patterns. Since the nineteenth century, the big landed estate has been recognised as the engine of economic activity in Antiquity. Until recently, all of the main historiographical trends pitted large estates powered by dependent labour against a background of smallholdings in the hands of free agriculturists constantly on the brink of starvation. More recent research (e.g. Decker 2009) emphasises the margins for surplus production and commercialisation for peasant holdings and sets them within an integrated economy.

ii) Performance of agriculture. Albeit emphasis on 'performance' represents a recent development (see above Scheidel & von Reden 2002), debate on the productivity of the agrarian sector dates back to the early phases of the modernist-primitivist controversy.

iii) Institutional impact on economy. Recent scholarly attention to the impact of institutions (legal frameworks, the emperor and the imperial bureaucracy, the urban administration, but also ideological and religious institutions) on the economic performance of the agrarian sector may be ascribed to the influence of New Institutional Economics (NIE).

iv) Market economy. Rejected or downplayed by primitivists, the notion of an integrated market economy – central to modernists' reconstructions – is now subject to a reappraisal that concentrates on the interconnections between regional commercial networks.

v) Economic rationalism. The lack of economic rationalism in Antiquity has been the battle cry of the substantivists for half a century. Today, research has rehabilitated this notion and emphasises evidence for sophisticated accounting (Rathbone 1991) and income-maximising strategies (Christensen 2003).

vi) Technological change. Forcefully denounced by Finley (1965), the lack of technological development – particularly in the agrarian sector – has been regarded as one of the major hindrances to economic progress in Antiquity. More recently, technological development has been revaluated and research now concentrates mostly on technological transfer (Greene 2000) and the dissemination of the stock of knowledge (Schneider 2007).

These research themes will be tackled in the following parts (II-IV) of this thesis. However, before we move on to characterise the specific area of this study and its methodology of approach (1.1.3 and 1.2), further contextualisation in the modern historical debates is needed. In

particular, we must now look at the development of the French *Annales* school and the influence that it had in promoting a new branch of scholarship in agrarian sociology. The impact of *Annales* school on field archaeology must also be assessed for it is largely through the development of the latter that we have begun to understand how settlement in marginal zones was achieved and how it was organised.

1.1.2. Annales school from Febvre to The Corrupting Sea *and beyond*

The first issue of the periodical *Annales d'histoire économique et sociale* (1929), founded by Lucien Febvre and Marc Bloch, opened with a call for an inter-disciplinary approach to the study of economic and social history.[65] Febvre and Bloch's commitment to interdisciplinarity can be traced back to their formative years at the École Normale, where they were influenced by Vidal de la Blache in human geography and Durkheim in sociology. [66] A keen interest in the study of the physical environment also explains the emphasis on rural history that underscored the gestation of the *Annales* school. Neither Bloch nor Febvre were geographical determinists, though. The study of the environment was only meaningful insofar as it allowed to understand how man interacted with it.[67] This becomes apparent in Bloch's *Les caractères originaux de l'histoire rurale française* (1931), in which the author studied aspects such as crop rotation, agricultural tools and village housing to reconstruct what he termed "civilisation agraire".

This book, and the ensuing *Société feodale* (1939-40) set the path for a number of studies of agrarian history that were to find space in the *Annales*. The reconstruction of the social history of the peasantry passed through the study of land cadastres and "plans parcellaires", of the peasant's diet and work tools and technology. At the same time, *histoire quantitative* was being introduced as the study of large datasets (such as price series or climatic data) subject to statistical analysis.

In 1941, the editor's preface to a new monograph series directed by Bloch and entitled 'Le Paysan et la Terre' promised to study the peasant "avant tout dans le paysage familier de ses labours, de ses jardins et de ses pâtures", but also the religious and social dimensions of village life.[68] With this statement of purpose, *Annaliste* agrarian historiography entered its mature phase. It is in this series that Weulersse's *Paysans de Syrie et du Proche-Orient* (1946) was published. This book deserves particular mention not only because it covers the area treated by this thesis, but also because the modern Levantine peasantry here described may serve as a useful ethnographical parallel for the ancient rural society that will be described in Parts III and

[65] Bloch and Febvre 1929:1-2.
[66] Burke 1990:12-6.
[67] "Does the physical ever affect the social, unless its operations have been prepared…by other factors…derived from man?" (Bloch 1954 (2010:21)). See also Febvre 1922:284.
[68] Reported by Febvre 1941:179.

IV. The volume is primarily a work of human geography. Weulersse highlighted the role of the patriarchal "family" (*famille patriarcale*) as the basic social and economic unit of the Levantine countryside. This group comprised several generations and nuclear families headed by the most senior male member and often living under the same roof: together, they made up the basic Levantine household.[69] Households were then united as a village community, with a council of elders representing the individual households and a village chief, the *mukhtar,* who acted as a link between the state and the village. Regarding land tenure, Weulersse distinguished two main forms of land division. In the plains and valleys, the *musha*^{c} prevailed: this was a village-organised parcellation of parallel narrow strips of land that were periodically redistributed. Private property gradually developed out of this form of joint ownership.[70] In the mountains and hills, Weulersse noted that the fields were primarily occupied by olive groves, vineyards or irrigated orchards and had individual owners. Weulersse argued that orchard agriculture had normally guaranteed better living standards and allowed the peasantry to defend their rights more effectively.[71]

The intellectual hegemony enjoyed by the *Annales* school in post-war France and Europe owed much to Fernand Braudel's towering scholarship and, in particular, to the publication of his *La Méditerranée et le monde méditerranéen à l'époque de Philippe II* (1949).[72] Braudel's masterpiece brought the Mediterranean ecology to the centre stage. His tripartite division of time (*courte*, *moyenne* and *longue durée*) allowed him to distinguish the historical plane of events (the *histoire événementielle*) from that of social and economic transformations (later called *conjonctures*) and that of the long-term historical structures, which Braudel identified in man's relationship with the environment. The latter were the object of the first part of *The Mediterranean,* a "geo-history" which may be regarded as Braudel's most significant and influential contribution. Despite a high degree of local variability, Braudel regarded the Mediterranean as a geographical, climatic and human unit. Thus, his geo-history began with a study of the human geography of the three main types of landscape to be encountered in the Mediterranean: the mountain, the hill and the plain. Braudel regarded mountain settlement as the earliest, but also the most primitive form of Mediterranean settlement.[73] Mountain societies are portrayed as strongly conservative, self-sufficient isles of settlement surrounded by wide expanses of wilderness.[74] The limestone hills, instead, may be regarded as the most typical Mediterranean landscape because of their suitability for arboriculture. Yet, hills were hardly a safe environment: field clearance was required in order to put the soil under cultivation and constant maintenance of terraces was necessary lest the

[69] Weulersse 1946:216-7; 233-9.
[70] Weulersse 1946 :99-108.
[71] Weulersse 1946:109-13.
[72] Hereafter quoted from the English translation of the second edition (1966) of Braudel's *The Mediterranean* (Braudel 1972).
[73] Braudel 1972:52.
[74] Braudel 1972:32-3.

shallow topsoil be washed downhill.[75] The Mediterranean climate – another factor of regional unity for Braudel – made things worse: with its unpredictable seasonal variations, it made poverty widespread.[76]

In Braudel's Mediterranean of mountains, hills and plains, man sometimes appears to be locked in an environmental cage, an aspect that reviewers did not fail to note.[77] Indeed, in the concluding remarks of *The Mediterranean*, Braudel noted that he saw "the individual…imprisoned within a destiny in which he himself has little hand".[78] The geographical determinism that emerges from such a view was perhaps the biggest weakness of *The Mediterranean*. Scholars of the later generations of *Annales* sought to overcome it by returning to Febvre's possibilism, but Braudel's conception of time and his emphasis on studying geographic units had a long-lasting impact on later scholarship.

In the field of rural history, Le Roy Ladurie's *Peasants of Languedoc* (1966) represented the most impressive achievement of the second-generation *Annalistes*.[79] The argument of this book essentially contains the *Annaliste* orthodoxy on the economic development of rural societies over the *longue durée*. By studying the land cadastres of the villages of Languedoc between the eleventh to the nineteenth century, Le Roy Ladurie identified three cycles characterised by the repeated expansion and shrinking in the numbers of peasant smallholdings.[80] This he interpreted as a function of rising and falling population numbers (the concentration of property being a consequence of population decline, not a sign of agrarian capitalism). When population grew, more and more land was put under cultivation and partible inheritance led to the multiplication of peasant holdings. Then, shrinking returns from the land made the region susceptible to more frequent crop failures and undernourishment, which derived from famines, made the population more prone to disease.

In other words, beneath the flow of events and centuries, Le Roy Ladurie detected a rural population whose destiny was determined by Malthusian and Ricardian checks. In the long term, the historian noted, demographic growth was never sustained by a rise in productivity. An expanding population could only be maintained by extensive growth, which was only possible insofar as productive land was at hand: "the Malthusian scissors between production and population could not go on opening forever".[81] The real crux here was "the technological weakness of this society, its inability to raise productivity". Technological lethargy, in turn, was the product of people's mentality. Small, middling and big landowners were much too

[75] Braudel 1972:55-60; 243.
[76] Braudel 1972:241 ("Mediterranean man gains his daily bread by painful effort").
[77] See Burke 1990:40.
[78] Braudel 1972:1244. On Braudel's concept of *longue durée* see also Braudel 1958.
[79] Hereafter quoted from the English translation: Le Roy Ladurie 1974. This work belonged to the series of regional monographs that since Febvre and Bloch *Annales* had strongly encouraged. The merits of local history are appraised in Leuilliot 1967.
[80] Le Roy Ladurie 1974:5-6.
[81] Le Roy Ladurie 1974:296.

preoccupied with religion to think about the "gross product": "the material aspects of the great agrarian cycle were, in a word, inseparable from its cultural aspects".[82]

The reader will be reminded here of Polanyi's substantivist school. Indeed, with the exception of Braudel who subjugated *mentalités* to the Mediterranean ecology, the combined study of rural economy and rural mentality was a distinctive feature of the *Annales* of the first, second and third generation. The other one was the Malthusian frame of reference into which the evolution of peasant economies was always trapped.

The interdisciplinarity, the ecologising approach, the regional vocation, the search for secular structures and the role of communication preached by the *Annales* school proved popular with archaeologists, who – starting in the 1970s – began to apply the "*Annales* method" to field surveys.[83] The development of the so-called "New Archaeology" had prepared the ground. Starting in the early 1960s, American and British archaeologists began to call for their discipline to be treated as a science. This entailed the creation of a diverse methodological framework to complement the practice of excavation.[84] In 1973, David Clarke could claim that a "transition of archaeology from noble innocence to self-consciousness" had taken place.[85] Through the emergence of ever more advanced techniques of archaeological investigation (e.g. aerial reconnaissance and geophysics to help site location, photogrammetry, fine sieving etc. in field archaeology) archaeology had also gained in scientific sophistication. The receptive attitude of the discipline to the social sciences opened the way for a debate about the applications of the *Annales* methods and agendas.

Survey archaeologists were the first to appreciate the potential benefits of the *Annalistes*. Modern survey archaeology can be said to have developed around the figure of John Ward-Perkins, who was director of the British School at Rome between 1946-74.[86] Ward-Perkins promoted what was later to be known as the *South Etruria Survey*, an intensive field survey spanning some 1,000 km^2 and comprising the *agri Veientanus*, *Faliscus* and *Capenas*.

[82] Le Roy Ladurie 1974:291; 302.

[83] It is important to remark that the '*Annales* method' was only popularised in Britain and America after the publication of the English translation of Braudel's *Mediterranean* (1972). For the following two decades, the reception of *Annales* historiography (at least in the field of archaeology and ancient history) was mostly filtered through Braudel's own work – the other *Annalistes* remaining little known. By the early 1990s, when volumes of theoretical archaeology assessing the validity of *Annales* method began to circulate (e. g. Bintliff 1991; Knapp 1992), archaeologists were only beginning to critically assess the Braudellian methodology – which placed too much emphasis on ecological determinism – against the work of the second- and third-generation *Annalistes* such as Le Roy Ladurie and Georges Duby who (looking back to Febvre) emphasised the interplay between environment and action. For one such critical assessment, see Moreland 1992.

[84] A brief overview of the state of the question at the beginning of the 1970s is offered by Watson 1972.

[85] Clarke 1973:8.

[86] Topographical studies, of course, long predated the development of survey archaeology. In Italy, George Dennis's *Cities and Cemeteries of Etruria* (1848) is by many recognised as one of the first topographical works conducted with modern criteria (e. g. Potter 1979:1). In the Levant, Melchior de Vogüé's *Syrie Centrale* (1864-77) and the Palestine Exploration Fund's *Survey of Western Palestine* (1881-8) represented equally outstanding (though very different one from the other) works of scholarship. Aerial archaeology, which was to play such a big role in survey archaeology, had also begun to develop at an earlier period: see, for example, Crawford 1924; Poidebard 1934.

Begun as a survey of the ancient road networks, it soon developed into a comprehensive study of all forms of settlement from the Bronze Age to the Middle Ages. Fieldwalking and the gathering of surface pottery led to the establishment of a tripartite site ranking (villa, farm, hut). A chronology of finewares was established by small-scale excavation, African Red Slipware (*ARS*) soon emerging as the best kind of diagnostic pottery for the period between the 1st and the 6th century AD. To the study of ceramics, the surveyors added that of faunal and floral remains to achieve a comprehensive understanding of environmental change through four millennia.[87]

The *South Etruria Survey*, in turn, inspired the survey of the Biferno valley, the first to adopt the '*Annales* method' in the early 1970s.[88] This region comprises ca. 1,200 km^2 of plains, hilly slopes and mountain plateaus, a perfect test case for the kind of local history so favoured by the *Annalistes*. As the project director Graeme Barker put it, the goal was to explore "the relationship of human settlement to the natural landscape and…of human settlement in the valley to the outside world – precisely the interplay between *événements*, *conjonctures*, *mentalités* and the *longue durée*" that the *Annales* school had fathered.[89] Despite the clearly *Annaliste* flavour of this study, the surveyors attempted to avoid the pitfalls of Braudellian determinism by emphasising the role of events in triggering structural change (e.g. the demographic and economic effects of the Social War).[90]

Malthusian cycles like those outlined by Le Roy Ladurie return, however, in other surveys such as the Boeotia survey conducted by John Bintliff and Anthony Snodgrass and the survey of the Limestone Massif of northern Syria directed by Georges Tate in the 1980s and 1990s.[91] Tate's *Les campagnes antiques de la Syrie du Nord* (1992), to which we will return in far greater detail below (Part III), looked at *Annales* historiography, and particularly that of the second generation: his "archéologie sérielle", based on the systematic collection of data concerning the building style and décor of hundreds of ancient rural dwellings was clearly modelled on Pierre Chaunu's "histoire sérielle".[92] Combining dated epigraphic evidence found *in situ* with a painstaking study of the evolution of décor, Tate and his associates claimed to have been able to reconstruct a complete chronology of house building, which in turn allowed them to speculate on the demographic history of the region. The *Annaliste* methodology was then accompanied by *Annaliste* conclusions regarding settlement growth and decline. Tate

[87] The best overview of the *South Etruria Survey* is Potter 1979. In recent years, the immense dataset of the *South Etruria Project* has been reappraised and now forms the basis of the *Tiber Valley Project* GIS (Patterson & Millet 1998; Patterson 2004; Goodchild 2007). For late Roman finewares see John Hayes's classic studies (Hayes 1972; 1980).
[88] Barker 1991; 1995.
[89] Barker 1991:38.
[90] Barker 1995:311. In doing so, they were clearly following the tendencies of the second and third generation-historians of *Annales*, as Barker himself notes (*Id.* 1995:3)
[91] In Greece, the *Minnesota Messenia Expedition* (MME), begun in the 1950s, proved as pioneering as the *South Etruria Survey*. Later surveys were built on the foundations of this project:e. g. the Methana survey (Mee & Forbes 1997) or the Laconia survey (Cavanagh *et al.* 2002).
[92] Tate & Sodini 1984; Tate 1988. The principles of "histoire sérielle" were inspired by Ernest Labrousse, a Marxist economic historian who emphasised the importance of quantifiable data and statistics. See Chaunu 1970; Braudel 1963.

argued that agrarian cycles could be discerned between the first and seventh centuries AD, the latter ending with a prolonged phase of stagnation (like Le Roy Ladurie's 'modern' cycle) – the natural consequence of overpopulation in an environment characterised by extremely finite resources.[93]

It is in the broader field of Mediterranean-wide historiography that the *Annaliste* influence or, more precisely, Braudel's influence has been most recently felt. A new wave of 'thalassology' was inaugurated by Horden and Purcell's *The Corrupting Sea* (2000), which proved particularly influential for ancient historians and archaeologists.[94] Its thesis insists particularly on four concepts: the *longue durée* which sets the tempo of Mediterranean historical ecology; the fragmentation of the Mediterranean environment into micro-ecologies; widespread, small-scale connectivity, which weaves all of the micro-ecologies together into a unity; and the concept of Mediterranean history as a sequence of cycles of "intensification and abatement".

Although borrowing the *longue durée* from Braudel and the centrality of Mediterranean-wide connectivity from Pirenne and Gotein, Horden and Purcell's Mediterranean bears little resemblance to that of their predecessors.[95] As several reviewers have noted, *The Corrupting Sea*'s *longue durée* is only notionally Braudellian for it is not accompanied by medium- and short-term duration: the flow of time is, to Horden and Purcell, almost entirely irrelevant insofar as history is conceived a repetition of phases of intensification and abatement of connectivity between micro-ecologies.[96] Moreover, the unity of the Mediterranean environment characteristic of Braudel's model is rejected in favour of a high degree of local variability, which leads the authors to propose the concept of micro-ecology. This is defined as a "locality with a distinctive identity derived from the set of available productive opportunities and the particular interplay of human responses to them found in a given period".[97] Horden and Purcell's micro-ecology provides the authors with an extremely elastic category of analysis that may be applied to regions as large as the Jebel Akhdar plateau in Libya (ca. 60,000 km^2) or as small as the island of Melos (150 km^2).[98] In the fragmentation of ecologies, connectivity represents the thread that keeps the Mediterranean together. Yet, in opposition to Pirenne and Gotein (and much to the discomfort of several reviewers), Horden and Purcell are uninterested in long-range trade or in large-scale non-commercial forms of exchange (e.g. the *annona* supply): their interest lies in the *ensemble* of small-scale movements of caboteurs, missionaries, traders, migrants, nomads and so forth.[99] The rejection of events and conjunctures (in the

[93] Tate 1992:343-50.
[94] Peters 2003. For reactions to the themes raised by *The Corrupting Sea* see Harris 2005; Horden & Purcell 2005.
[95] Beside the general emphasis on widespread commercial links, the intellectual debt to Rostovtzeff (the first of the 'four men on a boat', Horden & Purcell 2000:31-2) is harder to discern.
[96] Shaw 2001:420; Fentress & Fentress 2001:214ff.
[97] Horden & Purcell 2000:80.
[98] Horden & Purcell 2000:54-77. The elasticity of the concept of micro-ecology puts its heuristic value into question, as noted by Fentress & Fentress 2001:212.
[99] For a critical assessment see Shaw 2001:432-5.

Braudellian sense), of all qualitative distinctions (e.g. between state demand and private demand for commodities) and of the majority of accepted categories of analysis (e.g. the city) underpin *The Corrupting Sea*'s 'iconoclastic' approach to Mediterranean history.[100]

When applied to the agrarian history of the Mediterranean, Horden and Purcell's model comes across as a mixture of tradition and innovation. The authors emphasise the centrality of environmental risk as the motor of agrarian productive strategies. Such strategies consist, essentially, in diversifying, storing and redistributing produce.[101] Diversification implied, in most cases, the combination of polyculture and animal husbandry, which minimised risk of crop failure and provided additional flexibility. At the same time, such combinations allowed for margins of surplus that could be stored or commercialised/distributed either to make up for other, otherwise scarce resources or as an insurance against future lean years.

The omnipresence of risk leads the authors to regard all the Mediterranean environments as "marginal". Three different, though often overlapping forms of marginality may be discerned: the climatic marginality, which manifests itself with particularly low rainfall or extreme winter conditions; the topographical marginality, which is determined by the "accidents of relief and lithology, hydrology, soil" that make the landscape particularly challenging for human exploitation; and the temporal marginality, which is caused by the sudden impact of a natural disaster (landslide, wildfire etc.) or by the gradual decrease in soil productivity due to overgrazing or other anthropogenic phenomena.[102]

Across the spectrum of marginality, the orchard was often the most diffused form of agrarian exploitation. Averaging less than a hectare, these plots of land were particularly common in karstified landscapes and were planted with a mixture of grain crops and legumes, vines and olives. This diversification oriented toward surplus production made it possible to "avoid risk in an unpredictable environment".[103] In *The Corruping Sea*, risk avoidance replaces subsistence farming as the productive strategy of the Mediterranean man. In the authors' words, "to aim at subsistence is suicidal" for subsistence farming leaves no room to accommodate for the vagaries of climate variability: overproduction, rather than autarky is the only viable answer for "the peasant" and "the powerful" alike.[104]

The marginal environments of the Mediterranean were exploited in a series of cycles of intensification and abatement of production, which seemingly echo Le Roy Ladurie's agrarian cycles in Languedoc.[105] However, while Ladurie's cycles were ultimately the product of repeated Malthusian crises, Horden and Purcell's phases of intensification and abatement are only driven by demand. In one of the most innovative arguments of the book, the authors reject the role of demographics in determining economic patterns in the pre-modern Mediterranean;

[100] Shaw 2001.
[101] Horden & Purcell 2000:181.
[102] Horden & Purcell 2000:179-80.
[103] Horden & Purcell 2000:220-4.
[104] Horden & Purcell 2000:272-4.
[105] An aspect noted by Shaw (2001:427), but ultimately mistaken.

for them, "before modern times, the environment as a whole, through redistribution and intensification, could accommodate any imaginable demographic increase". The concept of carrying capacity is entirely dismissed.

Thus, increased demand of any given product leads to a phase of intensification of its production. Here, however, a crucial assumption is made. For in *The Corrupting Sea* phases of intensification and abatement appear to be always controlled by "the powerful" (whether landlord, city council or imperial government), those in whose hands lay the capacity for directing the process of stockpiling and marketing products. It is mostly through their initiative, and their "ruthless self-interest" that cash crop specialisation is promoted to address the needs of specific markets. Without their pressure, the vine and the olive (the two most widespread cash crops in Antiquity) would revert to being yet another crop in the highly mixed "portfolio" of the "microregional producer".[106]

In spite of Horden and Purcell's radicalism, their view of a surplus-extracting élite as the only motor of durable agrarian change is remarkably conservative. It is not altogether clear why autonomous producers should not be allowed a more active role in the determination of phases of intensification and abatement. To illustrate their theory, the authors chose to look at the settlement of the Limestone Massif of northern Syria. After rejecting a Malthusian interpretation for the economy of this region (*contra* Tate 1992), the authors argue that the apparent "petrification" of the house-lots after the fourth century suggests that "the activities of the inhabitants were constrained by an iron control, from outside, of the landscape of property".[107] The villagers of the Limestone Massif are portrayed as a mass of dependent labourers whose surplus oil and wine was extracted by the wealthy landowners of Antioch leaving the peasantry on the verge of disaster. We will see below (Parts III, IV) that this view is both wrong in the detail and inaccurate as a model.

We may now sum up the main methodological constructs and research questions that the *Annales* school and, more recently, *The Corrupting Sea* have brought to the fore in the study of agrarian history:

i) Regional ecology. The emphasis on the ecological setting of a region goes back to Febvre and Bloch's first studies, which had in turn been inspired by the historical geography of Vidal de la Blache. After Braudel's *Mediterranean* the significance of geography to the understanding of social and economic structures has found broad acceptance, though scholars (starting from the second-generation *Annalistes*) have since abandoned Braudel's "imprisoned" individual in favour of a positive interaction of man with the environment (in this returning to Febvre's possibilism). On the other hand, the importance of local history has been reaffirmed by the

[106] Horden & Purcell 2000:210; 265; 274.
[107] Horden & Purcell 2000:275.

increasing awareness of micro-regional variability and its impacts on human occupation (e.g. *The Corrupting Sea*'s micro-ecology or micro-region).

ii) Marginality. Horden and Purcell have portrayed the Mediterranean in terms of ecological marginality. This concept is helpful for it allows to understand the agrarian economy in terms of efforts made by the producers or by institutions controlling them to extend and maintain cultivation against multiple environmental constraints. The large-scale extension of agriculture to topographically and climatically marginal zones represents one of the most significant achievements of the Roman and late Roman period and constitutes the common thread of this thesis (see 1.1.3 below).

iii) Concept of time. Braudel's famous conception of time, and particularly the concept of *longue durée* have been applied to landscape archaeology with very effective results. Examples of surveys such as those of the Biferno valley or of Boeotia show how the diachronic study of relatively small-scale areas brings out long-term and cyclical phenomena.

iv) Economic cycles. In agrarian history, the cyclical phenomena detectable over the *longue durée* have been interpreted by most *Annalistes* in Malthusian terms. We have seen this best depicted in Le Roy Ladurie's Languedoc and in Tate's Syrian Limestone Massif. Such conviction has been challenged by Horden and Purcell, whose phases of "intensification and abatement" are not determined by demographic or environmental pressure, but rather by the growth or decline of demand for specific products coupled with various forms of élite dirigisme.

v) Role of élites. Regarding the role of the élites in determining agrarian economic cycles, the *Annales* historiography has responded in different ways. In Le Roy Ladurie's Languedoc, the accumulative policies of wealthy landlords were made dependent on demographic cycles: only when demographic crises (due to Malthusian checks) led to a decline in smallholdings did *latifundia* expand. *The Corrupting Sea*, instead, regards élites as the only holders of the necessary power and initiative to extract surplus for investment purposes.

vi) Subsistence: choice or obligation. Subsistence as the prevailing economic strategy of the Mediterranean farmer has been approached from different viewpoints. We have seen above that, with few exceptions (e.g. Decker 2009), the participants to the "ancient economy" debate propounded a view of self-sufficient smallholders. The *Annalistes* and their continuators in archaeology and ancient history have emphasised the need for crop diversification and exchange of products to respond to environmental challenges. Even they, however, have rarely been willing to accord to the smallholder any room for improving his social standing by means of his own surplus production. In the model expounded by Horden and Purcell, when the

> demand for a certain product grows, Mediterranean farmers intensify production to meet it, but their surpluses soon fall victim to the rapacity of the "powerful". Whether by choice or by obligation, most scholars hold, the returns of small and middling owners could be rarely raised beyond bare subsistence levels for any significant amount of time.

Considerable strides have been made in the study of agrarian history since Lucien Febvre and Marc Bloch put the pre-modern countryside on their research agenda. In particular, the *Annales* school deserves the credit for having highlighted the importance of studying man's interaction with the environment in order to understand social and economic responses on the medium and long term. The recent critical reappraisal of the *Annaliste* conceptual arsenal by Horden and Purcell has opened up new research strategies, but also re-proposed firmly established views, such as that which accords to élites the monopoly of agricultural investment for profit. Criticism of this position, in turn, generates an obvious question: was it possible, in spite of all the external pressures (rent, taxes, oppressive patronage), for the Mediterranean small and middling owner to improve his material conditions and social standing by marketing his produce? To answer it, we must first clarify the scope of this thesis.

1.1.3. Position of this study

The previous two sections have served the purpose of contextualising this study within the wider historiographical trends that inform the research strategy to be followed in this thesis. It is now appropriate to show how this thesis purports to position itself alongside, and sometimes in opposition to such trends.

Starting from *The Corrupting Sea*'s conception of the Mediterranean landscape in terms of marginality, I aim to elucidate the causes that led marginal zones in the Levant to be brought under intensive cultivation, the social and economic regimes that emerged from such intensification of settlement and how they evolved over the *longue durée*. Since long-term processes are at issue, chronological boundaries are necessarily blurred: thus, while the bulk of the thesis concentrates on the Roman to Umayyad period (1st c. BC – 8th c. AD), references will often be made to earlier and later periods.

The marginal zones that we purport to study are characterised by a combination of climatic and topographical marginality. Three areas will be surveyed, at different degrees of detail: from north to south, the Limestone Massif of northern Syria, the Golan Heights and the Jebel al-ᶜArab in southern Syria. The Golan Heights and the jebel al-ᶜArab will be analysed in Part II of this thesis. The Limestone Massif, instead, has been selected for an in-depth case study, that will occupy the whole of Parts III and IV.

Despite being characterised by different climates, geology and soils, a comparative analysis of these regions is possible owing to the common features displayed by the

development and survival of intensive agriculture. In other words, these regions are bound together by the set of factors that led to their agricultural development and by similar responses to the omnipresence of environmental risk. As regards the former, particularly important are the incentives that made it advantageous for settlers to cultivate marginal zones, something which involved a variety of actions among which the parcellation of rocky lands through extensive surface clearance; the creation of barrages of wadi beds and irrigation canals or the digging of rain-fed cisterns and wells exploiting karst aquifers. Incentives can be endogenous or exogenous. An example of endogenous incentive is represented by local demographic growth which forces a part of the population to relocate or expand the ploughed area around their property: the surveyors of the Amuq plain east of Antioch suggest that this is precisely what happened when, in the early Empire, settlement began to occupy the adjoining jebel al-'Aqra[c].[108] On the other hand, the most important exogenous incentive to marginal settlement was the establishment of solid political entities which, by ensuring security and connectivity, stimulated a growth in the demand for specific products and the development of commercial networks to address it.

Turning to risk management, crop diversification represents the first and most natural response, but it is also a difficult one in constrained climatic conditions. Thus, while cereals and legumes could be often produced for self-sufficiency, successful risk management depended particularly on the investment in the cultivation of cash crops such as the olive and the vine. The profits made through the sale of wine and oil surplus could be used to compensate for a scarce grain yield: thus, marginal zones were always reliant on the existence of a market economy through which shortages could be balanced. Commercial ties were first and foremost established at local level between the villages of the marginal. While such connections could compensate for small-scale ecological differences which determined certain constraints on production, climatic risk required wider networks. Regional urban markets were the key to the preservation and thriving of intensive agricultural exploitation of the marginal: on the one hand they played a fundamental role in balancing unpredictable shortages; on the other hand, by absorbing the bulk of the surplus production of marginal lands, cities such as Apamea, Antioch or Bostra acted as proxies between the producers and wider inter-regional and international markets.[109] In this way, marginal zones were made part of far-reaching trade networks: northern Syrian wine and oil were likely shipped to as far as coastal and central Gaul while Hawrani wine probably reached the Hijaz in the pre-Islamic period.[110]

The sheer extent of settlement in marginal zones begs the question of how such development was achieved and maintained through the centuries, but it also compels us to understand the reasons and chronology of its eventual decline. Indeed, it is precisely the almost

[108] Wilkinson & Casana 2005; Gerritsen *et al.* 2008.
[109] Alongside regional urban markets one has also to assume that the army played an important role as a recipient of products coming from marginal zones.
[110] For Gaul:Pieri 2005a; for the Hijaz see below, section 2. 2. 1.

complete desertion of these areas – which occurred at some point during the Middle Ages – that has made it possible for entire villages to survive almost unscathed down to our own days. The hard evidence for the intensification of marginal settlement during the Roman and Byzantine periods makes Levantine marginal zones particularly suitable as a test case to understand the scale and process of economic growth over this period. This must be done by determining the weight of endogenous and exogenous factors in the establishment of individual or groups of sites.

The growing body of archaeological and epigraphic evidence sheds light on the social and economic structures and allows us to reconstruct, among other aspects, settlement patterns, household occupation and agricultural infrastructure. These developments make it possible to write, in *Annaliste* fashion, a history of the countryside from within, starting from the village house and the peasant family rather than from the urbanite landowner with possessions in the countryside. In writing this kind of rural history, an important support may be found in the hagiographic literature. As Peter Brown first acknowledged, the Syrian holy men and monks who emerged as important social and economic actors in fourth and fifth centuries gave expression to a prosperous village society, glimpses of which may be found in the lives of the saints. The scale of the rural prosperity may also be gauged. Heeding recent calls for more quantitative history (1.1.1), the detailed study of wine and oil presses in northern Syria and in the jebel al-ᶜArab makes it possible to quantify the capacity of production of these installations, thus providing an order of magnitude as to the surplus margins of these enterprises. If marginal lands were capable of producing for a market, we must ask who was able to take advantage of this. In the wake of the two debates sketched above, absentee landowners and a rapacious state would be the obvious candidates.

Yet, perhaps the most intriguing feature of Levantine marginal zones is that small and middling ownership, polarised in nucleated settlements seems to have prevailed over large estates. There were, of course, cases of individually-owned settlements (*epoikia*) and on several occasions urban dignitaries succeeded in extending their property over free villages by offering their patronage services. Yet, overall, familial holdings seem to have remained in the majority. More surprising still, social mobility appears to have been a concrete reality. There is a good repertoire of rural Syrians who made successful careers in the imperial bureaucracy and in the clergy or who simply climbed up the social ladder in their native villages. The assumption must be that they were able to do so because of the solidity of their economic base.

1.2. *Structuring the argument: relevant questions and approaches to the study of settlement of marginal zones*

This thesis comprises four main parts and two appendices that collect the epigraphic evidence used for this research.

Part I was dedicated to the discussion of the relevant historical debates. Part II provides a survey of two regions and a micro-region in the Levant that can be classed as marginal zones (on the basis of the definition provided in 1.1.3). It outlines how (if at all) earlier literature has sought to address the questions posed above and highlights shared features as well as differences between the ways in which settlement was achieved and maintained. Sections 2.1 and 2.2.1 look respectively at the Golan Heights and at the jebel al-ᶜArab, two regions of southern Syria known in Antiquity as *Gaulanitis* and *Auranitis*. Both belong to the so-called "Bashan group", an area that stretches from the Jordan to the west to the Harra pre-desert in the east and is characterised by a volcanic geomorphology. In the survey of these regions, five aspects will be taken into account. First, by exploring their geographical setting, we will describe the ecological conditions of their marginality. Second, a diachronic look at the evolution of settlement from the Bronze Age to the Middle Ages will be presented in order to bring out recurrent features in settlement patterns. We will then move on to describe the causes that led to the intensification of settlement, and particularly the role that sedentarisation of nomadic groups had in the occupation of these regions. Fourth, the social and economic structures that prevailed between the Roman and Umayyad period (1st c. BC – 8th c. AD) will be analysed, with a particular look at the organisation of village communities, agricultural production and commercial activities. Finally, the survey of the two regions will be concluded with a reflection on the fate of settlement after the Arab conquest, in order to understand whether continuity or rupture should be envisaged. Section 2.2.2, concentrates on the hinterland of Siᶜ, a rocky escarpment in the jebel al-ᶜArab which housed a regional sanctuary, and allows us to observe the evolution over the *longue durée* of a micro-region located between sedentary and nomadic ecologies. From at least the first century BC, the rise of the hilltop sanctuary of Baalshamin to the role of regional worship centre led to the development of a village whose chronology of occupation follows closely that of the sanctuary itself. After the third century, with the decline of this sanctuary, settlement in the micro-region of Qanawat-Siᶜ becomes more sparse, but also more pervasive with increasing numbers of hamlets and isolated farmsteads yielding Roman and Byzantine pottery. Between the fifth and eighth century, the valley around Siᶜ came to be dotted with wineries, the detailed study of which was the object of a field survey by the author of this thesis in the summer of 2010. We will see that some of these structures, whose production capacity will be assessed, remained in use until at least the early Abbasid period (late-8th c.).

Part III and IV provide an in-depth analysis of settlement development, social structures and economic performance of the Limestone Massif of northern Syria. With its 4,500 km^2, this region of calcareous ridges made up the bulk of the territories of the cities of Antioch and Apamea. Despite its rugged topography and limited water resources, this area boasted more than 700 villages and hamlets by the fifth century AD and shows continuous occupation from the second century BC to the tenth century AD. The wealth of the archaeological and epigraphic

record of the region makes the Limestone Massif an ideal candidate for a detailed case study of settlement development in the marginal. Part III outlines the geography of the region (3.1), surveys the earlier literature and provides a critique of the most significant historiographical reconstructions (3.2). In section 3.3, I analyse settlement development from the second century BC to the reign of Diocletian. The section seeks to clarify, in particular, how sedentary settlement was first achieved and what social structures emerged from the first centuries of occupation. It looks at the origin of the first inhabitants of the region and highlights the development of embryonic village institutions. It also examines the forms of economic exploitation in the Roman period, describing patterns of landholding and proposing explanations for the cadastration of parts of the region. Moreover, it addresses the question of imperial intervention in the process of sedentarisation of the Limestone Massif.

Part IV concentrates on the period between the Tetrarchy and the end of Roman rule in the region. Within this timeframe, I examine the impact of external forces on the society and economy of the region (4.1), local social structures (4.2) and economic activities and performance (4.3). A final section (4.4) switches to a chronological approach to follow the history of settlement in the Limestone Massif under the Arabs and up to the twelfth century. In section 4.1 I argue that the emperor, the imperial bureaucracy and the urban aristocracies exerted an indirect influence on the region, filtered through legislation, intermediaries or patronage. Direct intervention, mainly via land holdings was undoubtedly of some influence but quantitatively less significant than villages of freeholders.

Village society is analysed in section 4.2. The loose institutions of the Roman period were reorganised and strengthened in Late Antiquity. The spread of Christianity contributed to this reorganisation, particularly through the rise of monasticism which found fertile ground in the *eremos* of the Limestone Massif. Monks and ascetics came to compete with imperial bureaucrats and aristocrats for the role of patrons of the rural communities and became leading social actors and, occasionally, regional power brokers. The growing wealth of villages in Late Antiquity provided opportunities for social and geographical mobility. Natives of the Limestone Massif built successful careers in the imperial administration and in the clergy and emigrants from this region came to make up a large share of the expatriate communities of Orientals across the Mediterranean.

The more complex and wealthier society that emerges during Late Antiquity had roots in the economic growth of the centuries between the fourth and the sixth. This is explored in section 4.3, which identifies three main dimensions in the regional economic exploitation: the household economy, the village economy and the monastic economy. The household economy finds its archaeological counterpart in the courtyard house, examples of which will be analysed in depth. As it will be seen, the house was the place where the majority of the economic activities was carried out: storage and processing of agricultural produce, wine and oil production, animal husbandry and crafts were primarily achieved from within the walls of the

village house. Despite a certain degree of independence, households interacted with each other and were integrated in a village economy with a clear orientation to the market. This is proved by the margins of surplus that could be obtained by both wine and oil production as well as by the extent to which excavation has proved the local economy to have been monetised. A small-scale study of presses in the villages of Dehes (j.Barisha) and Sergilla (j.Zawiyé) establishes the capacity of the wine and oil producing infrastructure and its likely role in the economic growth of the region. Alongside wealthier villages, Late Antiquity also featured the emergence of flourishing monastic communities which became important landowners in the region. The example of Deir Dehes, a small monastery, will be analysed in detail to show that monasteries could themselves have engaged in surplus production. Finally, I will assess the ceramic evidence – and particularly amphorae and coarse wares – which excavations have revealed to be attested in the region. The presence of many imports and the likelihood that the Limestone Massif was among the main producers of the widely diffused *Brittle Ware* provide further evidence of the region's economic capabilities and its participation in large-scale commercial networks. Section 4.4, which concludes the treatment of the Limestone Massif, addresses the last of the thesis' main research questions, namely whether the disasters of the late-sixth and early-seventh century and the Arab conquest of the region sparked a demographic crisis that ultimately brought settlement to an end. The evidence from the Limestone Massif demonstrates that, despite a sharp decline in the number of dated inscriptions (the reasons for which will also be discussed), the post-Roman period was characterised by continuity both in terms of social structures and economic performance. Moreover, ceramic evidence suggests that the region not only remained connected to inter-regional markets, but also continued to produce *Brittle Ware* and to sell its agricultural products as far east as the Khabur river (via NSA Type II amphorae). Ultimately, section 4.4 tells the story of a still prosperous peasantry that, provided the survival of a power structure that ensured the maintenance of regional security, continued to thrive during the early-Islamic period.

The concluding remarks that follow Part IV bring together the observations made in the rest of the thesis. Such considerations allow us to build a model of settlement development and change for rural settlement in the Levant. As far as the causes of sedentarisation, it emphasises endogenous change in settlement patterns from nomadic to sedentary rather than immigration of external elements and, especially, Roman veterans. Peaceful conditions and the growth of regional urban markets such as those of Antioch and Apamea were the main causative factors for this shift in the nature of settlement. The patterns of settlement distribution, on the other hand, depended either on ecological factors or on the articulation of pre-existing religious centres such as the hilltop sanctuaries of Sheikh Barakat and Si^{c}. As far as the forms of settlement are concerned, nucleated settlement appears to have been widespread in marginal zones while isolated farmsteads, despite existing in some of the regions taken into account, played a more limited role. From the Roman to the late antique period, the development of

village communities and the growth in the numbers and individual wealth of small landowners was the *leitmotiv* of settlement of marginal zones. Rather than being oppressed by the weight of the large estate, a view recently reinstated by Banaji (2001) and Sarris (2005), the communities that flourished in the marginal were in most cases masters of themselves and capable of individual initiative. This does not mean, of course, that they were able to prosper in complete isolation from wider dynamics: patronage exerted by outsiders, and absentee ownership made their way into these regions, but remained, on the whole, secondary phenomena. Exogenous forces, in conclusion, had only an indirect impact on the history of rural settlement in the marginal. The Empire and later the Caliphate were instrumental in ensuring the security that allowed settlement in these regions to thrive, but had little direct impact on the determination of local social structures. Aside from the obvious impact of taxation, political institutions did not have a major role in the determination of the economic conditions of marginal regions: imperial estates were few and the extent to which legislation favouring settlement of uncultivated land had an effect in the Levant remains unknown. The economy of marginal zones was determined by household, village and monastic exploitations which combined mixed cropping, animal husbandry and cash crops. The study of the wine and oil production infrastructure reveals a vocation for market production that finds confirmation in the sources. Finally, the evidence from marginal zones suggests that we must be careful to dismiss the period after the Arab conquests as one characterised by decline and demographic crisis, whether triggered by disaster or by a Malthusian crisis. Where markets remained available and regional security ensured access to them, rural settlement appears to have continued to thrive.

A final note concerns periodization. Throughout the thesis, unless otherwise specified, I make use of the following, broad periodization: 'Hellenistic' encompasses the period between the third and first centuries BC; 'early Roman' is used of the first to mid-third centuries AD; 'late Roman' is employed for the late-third to fourth centuries; 'Byzantine' for the fifth to mid-seventh centuries and early-Arab for the period up to the death of Harun al-Rashid (AD 809). For *Auranitis*, "pre-provincial" period is also used and indicates that phase that goes from the creation of the province of Syria (64/3 BC) to the creation of the province of Arabia by Trajan in AD 105/6.

Part II. Marginal zones in Antiquity – the basalt lands of southern Levant

In this Part, I intend to survey the settlement history of the Golan Heights, or ancient *Gaulanitis* and the jebel al-ᶜArab (ancient *Auranitis*). After outlining the features that define their marginality (namely their geographical setting and the set of human responses to it), we will survey the main chronological stages of settlement from the Bronze Age to the Middle Ages, highlighting the factors that led to settlement intensification. The different forms of settlement will then be described ranging from dispersed farms and monasteries to hamlets and villages. The analysis of social and economic regimes will be at the core of each of the subsections below. Particular emphasis will be placed on understanding the dynamics that made it possible for marginal zones to thrive during the Roman to Umayyad periods. Connected to this is also the final question that we will address, namely how settlement in these regions evolved in the wake of the Arab invasion and, beyond it, into the Middle Ages.

The argument is structured as follows. While sections 2.1 and 2.2.1 look at the regions of *Gaulanitis* and *Auranitis*, section 2.2.2 takes a micro-regional case-study, that of the hilltop village and sanctuary of Siᶜ and its hinterland in the central jebel al-ᶜArab with the aim of exploring in more depth the causes of settlement intensification and abatement and the economic performance of a small agricultural area. The overview of *Gaulanitis* and *Auranitis* and the micro-regional case study of Siᶜ will serve the purpose of defining models of settlement development which will then be reprised at a much greater level of detail in Parts III and IV.

2.1. The Golan Heights

Summing up the results of ten years of surveys in the Golan Heights, Claudine Dauphin and Shimon Gibson noted that this, more than any other region in Palestine, constituted a 'valid "test case" for a study in historical geography, demography, urbanism and sedentarization'.[111] The geomorphological unity of the region, the intensity of its settlement in the Roman and Byzantine period and the outstanding state of preservation of the ruins were all cited as equally important reasons in support of this statement. Indeed, in spite of its difficult soils, the Golan was capable

[111] Dauphin & Gibson 1992-1993:7.

of sustaining a large population of settlers, which seemingly reached a peak in the Byzantine period (4th- early-7th c. AD), to which surveys have attributed more than 173 villages and hamlets. Beforehand, the region had already witnessed important waves of settlement in the Chalcolithic and Middle Bronze Age. Over the long term, settlement of the region appears to have been characterised by cycles in which sedentary agriculture and nomadism alternatively prevailed, though both exploitation regimes co-existed in every period.

From a geological point of view, the Golan Heights belong to the so-called 'Bashan group', a wide tract of basalt lands going from the jebel al-ᶜArab in the east to the Sea of Galilee in the west and from the southern slopes of Mt. Hermon in the north to the Yarmuk river to the south.[112] The varied topography of the region is due to the uneven distribution and age of the successive lava flows that characterise the local geomorphology. Examining the differences in geomorphology, climate, soils and flora Urman distinguished an Upper Golan (corresponding to the northern and eastern sections of the region) and a Lower Golan, setting the 500 m contour line as the boundary between the two. Above 500 m, the "Golan formation" dominates: volcano mounds are omnipresent and elevation rapidly rises to up to 1,200 m. Rainfall is also very abundant, with peaks over 1,200 mm/year. The Lower Golan, instead, may be divided into a number of sub-regions, the most important of which are the central and southern sub-regions. The former is characterised by deep river gorges and intense soil erosion: the soil properties made it particularly suitable for grazing and olive cultivation. The latter comprised the plains of the southern Golan, with deep and fertile soils particularly suitable for grain production; despite the lower rainfall (450-500 mm), this part of the Golan afforded easier conditions for subsistence agriculture, thus explaining its almost continuous occupation from the Chalcolithic to the modern period.[113]

It would appear that settlement in the Golan Heights proceeded by cycles of "intensification and abatement". The earliest occupation of the region dates to the Palaeolithic, though it is only around the late 5th millennium that large settlements were established. These Chalcolithic sites were mostly located by springs and wadis in the southern and central Golan and survived on a mixed economy of ovicaprid pastoralism and agriculture.[114] The first cycle of settlement came to an abrupt end in the early-4th millennium, when Chalcolithic sites were abandoned for reasons that remain difficult to clarify.[115] Desertion continued into the Early Bronze Age (EB I), but settlement resumed significantly in the EB II, with 27 recorded sites spread mainly in the central and upper Golan (12 and 11 respectively). Another phase of abatement followed in the Middle Bronze Age I, with sedentary settlement confined to the south of the region while the centre and north were the theatre of semi-nomadic occupation, which left

[112] The Golan Heights proper cover ca. 1,200 km^2
[113] Urman 1985:64-5.
[114] Epstein 1993:529-30.
[115] Epstein (1993:531) proposed short-term climatic change toward dried conditions that made agriculture untenable.

tangible traces in the hundreds of dolmens discovered across the region.[116] In the MB II, settlement continued to expand in the southern plains, where the majority of the 45 sites of this period were located. In the central and northern Golan, the few sites were established on easily defensible hilltops with access to water and good soils; it seems likely that nomads continued to dominate most of the territory.[117] Finally, between the Late Bronze and the early Iron Age settlement grew across the Golan Heights, but was brought to a halt during the Babylonian to early Hellenistic period (6th-3rd c. BC), when the region apparently declined and settlement disappeared following the campaigns of Tiglat-Pileser III.[118]

The Hellenistic period, and particularly the phase opened by the Seleucid takeover of the Golan after the battle of Panion (200 BC) signalled the beginning of a long period of settlement expansion and a renewed shift from nomadism to settled agriculture. Zvi Ma'oz explained the settlement boom of this period by a combination of political and economic factors: on the one hand, the Seleucids (and later Alexander Jaenneus and Herod) needed to settle this frontier region so as to stabilise it; on the other, the economy of the region flourished following the introduction of wine and oil presses and aqueducts, which made it possible for the region to sustain higher population densities.[119] By the end of the second century BC, 78 sites are attested. About half of these are believed to have been Ituraean settlements, which concentrated especially in the northern and eastern sectors of the Golan.[120] The Ituraeans, probably a tribe of Arabian origin who had immigrated to the region in the Iron Age, were at this time starting to relinquish nomadism in favour of settled agriculture. According to Hartal, sedentarisation took place over progressive stages, with tent camps becoming gradually associated with buildings for animal shelter or storage purposes; finally, proper dwellings were built. This process has been detected at Khirbet Zemel, a second-century BC hamlet which comprised several farmsteads. The excavation of one such structure revealed a simple dwelling built of rough fieldstones, which the excavators believed to have been established on an earlier tent camp.[121] The inhabitants were apparently engaged in grain and vine cultivation and storage as suggested by the finding of vinedresser's knives, millstones and *pithoi*.[122]

[116] Epstein 1985. See also Dauphin & Gibson 1990:39; 1992-1993:26.
[117] Hartal 1989:6.
[118] Hartal 1989:6; Epstein 1993:534.
[119] Ma'oz 1993b:534.
[120] It is important to note that the identification of Ituraean settlement in the Golan rests entirely on the identification of the local Golan ware with an expression of the Ituraean material culture. As a result, settlements that present Golan ware are automatically believed to have been Ituraean while those that do not have been otherwise characterised (e. g. Hartal 1989:8 'other Hellenistic sites'). Criticism against this theory has been recently voiced by Myers (2010:48-64).
[121] Hartal 2002:115. A reassessment of this excavation and discussion about the Golan ware *pithoi* is found in Myers 2010:57-63.
[122] Hartal 2002:111. See also Hartal 1987.

The early Roman period (66 BC-AD 67) witnessed a boom of settlement: sites rose to a total of 143, with growth being particularly intense in the central and southern Golan.[123] The migration policies of Herod and his successors are regarded as the main cause for the expansion.[124] Most of the new settlers are thought to have been Jews, and consequently the Jewish Revolt of AD 66-73 was a major watershed in the regional history of settlement. The destruction of Gamla (ancient Gamala) and the ensuing defeat of the Revolt must have pressurised the Jewish population, especially in the central Golan.[125] However, while excavation has proven that Gamla was abandoned in the aftermath of the Revolt, a view of generalised decline in the middle and late Roman period may prove to result partly from an insufficient understanding of the chronology of the local pottery.[126] In the same period, settlement in the north-east continued to grow (from 51 to 69 sites between the early Roman and late Roman period), expanding even into the northernmost part of the region, where the landscape is dominated by a recent basalt stratum with almost no topsoil. Settlement in this area required extensive land clearance and terrace building, which Hartal believes to have been carried out under imperial initiative to secure the Banyas-Damascus road in the 2nd-3rd c. AD.[127] However, the direct role of the imperial administration in settling the Golan Heights remains disputed. Unlike other areas in the Levant, there is no evidence for large-scale cadastration. Rather, field patterns are often irregular and show no sign of planning. The only recorded case of imperial intervention in matters of land cadastration is that of the Tetrarchic land surveyors, who marked the territorial boundaries of several villages in the Golan Heights.[128]

Similarly to other marginal regions, the most significant action of the imperial administration in the Golan Heights was the establishment of a road network that crossed the region (especially the road linking Banias to Damascus, the eastern branch of the *Via Maris* linking Jisr Benot Ya'aqov with Damascus and the southern thoroughfare that linked Gadara with Bostra). This network, with its fortlets and staging posts for the *cursus publicus*, may in turn have triggered the development of the many settlements that are known to have flourished along these thoroughfares.[129]

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[123] The chronological boundaries for the Roman period are those employed by Ma'oz (1993b:536). Urman (1985:104) gave a total of 182 settlements for the Roman period, but chronology remains unspecified.

[124] The founding of the settlement of al-Ramthaniyeh in the eastern Golan, for example, has been attributed to Herod's settlement programme:Dauphin & Gibson 1992-1993:27.

[125] Ma'oz 1993b:536-7. Urman (1985:106; 183), instead, believed that Jewish settlement resumed as early as the second half of the second century AD when, in the aftermath of the Bar Kokhba revolt, large groups of Jews moved to Galilee and the Golan.

[126] Indeed, a recent survey of central Golan has shown that, out of 45 surveyed sites, almost none was abandoned in the aftermath of the Jewish Revolt (Ben-David 2006:50).

[127] Hartal 1989:8-9.

[128] These operations have left behind a number of boundary markers. See most recently Ma'oz 2006.

[129] E. g. Kafr Nafakh and Na'aran:Dauphin 1981:239-40; Dauphin & Gibson 1992-3:11. Regarding road networks in the Golan Heights see Urman 1985:106-16. For the inter-regional thoroughfares see Bauzou 2003:303-6.

In the Byzantine period (AD 365-636), the aggregate number of sites reached a peak of 173.[130] The period was characterised by further nucleation of settlement, with smaller sites being often abandoned in favour of larger villages. The process of nucleation was studied by the Golan Byzantine Expedition, which has concentrated on four villages in the central (Kafr Nafakh and Na'ran) and eastern Golan (Farj and al-Ramthaniyeh).[131] In order to establish a relative chronology of development, the archaeologists classified masonry types.[132] In this way, it appeared that Late Roman villages had developed through the gradual expansion of earlier, isolated farms (which they term 'villas'): at Farj, for example, two Roman '*latifundia*' were gradually broken up into tens of smallholdings, to which corresponded a much denser settlement of both Christians and Jews.[133] The Christians of Farj are thought to have been Ghassanids, a group of Arab tribes of Monophysite rite who moved into the Golan and Hawran from the late-fifth century. Initially, Ghassanid encampments may have clustered around Christian religious buildings to which they flocked on occasion of specific commemorations. Archaeological evidence of these tent camps may be found in the clusters of curvilinear enclosures identified in the fields around al-Ramthaniyeh.[134] The contact with the settled populations of the Golan appears to have later triggered the sedentarisation of large groups of Ghassanids, who built their houses in imitation of the local style of private architecture.[135]

The Byzantine period also witnessed the widespread adoption of the "Hawrani style" in the building of private and public structures.[136] Hawrani houses comprised the characteristic stone ceilings sustained by rows of corbels (and occasionally arches), window walls (mostly used to house mangers, as storage facilities or to air the rear part of the house) and were built either around or at the back of a courtyard.[137] House plans were mostly very simple: at Qasrin in the central Golan, the majority of houses comprised only two rooms (often on two levels) divided by a window wall.[138] More complex plans either resulted from the juxtaposition of several simple units (e.g. house B at Qasrin) or were found in the large courtyard houses identified by the Golan Byzantine Expedition.

The early Islamic period (AD 636-745) apparently witnessed a severe drop in settlement, with only 14 settlements yielding ceramic material that may be dated to this

[130] Ma'oz 1993b:538.
[131] Dauphin 1981; 1983a; 1983b; 1986; Dauphin & Schonfield 1983; Dauphin & Gibson 1992-1993; Dauphin *et al.* 1996.
[132] This dating criterion can be unreliable if not combined with excavation. See below, section 3. 2.
[133] Dauphin 1984:234; 240-1. Dauphin & Gibson 1992-1993:16-24. The same process was observed at Na'ran and Kafr Nafakh: Dauphin & Schonfield 1983:196; 199.
[134] Dauphin & Gibson 1992-1993:26 (fig. 13); 28.
[135] Dauphin & Gibson 1992-1993:22. On the Ghassanids in the Golan see Shahid 2002:76-96.
[136] The introduction of the "Hawrani style" dates to the 1st c. AD, though this architecture only became widespread in the fourth-fifth centuries. Hartal 2006:11.
[137] We will return on this type of private architecture when looking at settlement in the jebel al-ᶜArab (2. 2. 1).
[138] Ma'oz & Killebrew 1988:12-4; Grantham 2000; Killebrew *et al.* 2003:60. See also Hirschfeld 1995:24; Meyers 2007:109-11.

phase.[139] The drop was most severe in the central Golan, and it has been attributed to the crisis of the local oil industry following a dip in regional demand. The northern Golan was apparently abandoned to nomads.[140] Excavated sites, however, have shown that continuity – if on a more modest scale – prevailed in most cases: the houses of Qasrin (central Golan) and Tell Jukhandar (eastern Golan) continued to be occupied until at least the mid-eighth century.[141] Arabic inscriptions discovered by the Golan Byzantine Expedition and assigned to the first century after the conquest also suggest continuous occupation of some villages.[142]

From the Hellenistic to the early-Arab period, settlement was dominated by nucleated sites. These were mostly situated in proximity to a source of fresh water or a large water reservoir (*birkeh*, pl. *birak*).[143] The availability of land suitable for agriculture was also a prerequisite. Based on their plans, villages may be divided between "introverted" and "dispersed", the former being characterised by the convergence of dwellings and alleys toward a central point (e.g. a synagogue, a church etc.), the latter by the gradual expansion of dispersed farmhouses.[144] The local epigraphy attests to a mixed religious milieu of Jews, pagans and Christians.[145] Affluent villagers (whether still resident in the region or not it is impossible to say) are also attested as benefactors to their native communities: for example, the *clarissimus* Flavius Naaman, a military officer of Arab origin, financed a *martyrium* at al-Ramthaniyeh in AD 374-7, "upon completing his services" and possibly settling in the village.[146] This *martyrium* dedicated to St. John the Baptist and the monastery connected to it are believed to have served as religious foci around which Ghassanid settlement developed.[147]

The economy of the Golan Heights was based on polyculture and animal rearing. A case in point is that of the village of Qasrin, whose territory – judging from the extension of field patterns – may have covered some 480 ha. The surveyors working on the site have estimated that ca. 160 ha lying immediately beyond the built settlement may have been used for olive cultivation and could yield up to 18 tons of oil per year. Further away lay an area of ca. 240 ha where deeper soils allowed for the cultivation of grain crops, the yield of which may have been sufficient to cover local consumption needs. Finally, a third ring of soil-poor, rocky land would have been suitable for grazing. The local agricultural production, the surveyors continued, would have been sufficient for subsistence needs while also providing significant

[139] Ma'oz 1993b:545.
[140] Hartal 1989:11.
[141] Ma'oz & Killebrew 1988; Ma'oz 1993a.
[142] Dauphin *et al.* 1996.
[143] In particular, settlements were located in the vicinity of "Lava Flow Front Springs":Urman 1985:182.
[144] Hirschfeld 1997:41.
[145] Gregg & Urman 1996.
[146] Dauphin *et al.* 1996:325 n. 25. The authors propose that Naaman may have been in service in the small fortlet located on a volcanic plug not far from the village itself.
[147] Dauphin *et al.* 1996.

margins of surplus oil (perhaps around 50%) for the market.[148] The combination of polyculture and cash crops aimed for the market is in line with the risk-averting strategy that most suited marginal zones (see above, 1.1.2 and 1.1.3).

Micro-regional specialisation (e.g. olive cultivation at Qasrin) was also part of this strategy. In the southern Golan, and especially in the vicinity of the Yarmuk river, the local limestone outcrops favoured vine cultivation and the majority of the known 22 wine presses located in the Golan have been discovered in this region.[149] The good pastures of the northern and eastern Golan, instead, facilitated specialisation in animal rearing, particularly that of cattle and ovicaprids.[150] In the central Golan, the widespread evidence of oil presses suggest specialisation in oil production from the Roman to the early-Arab period. As of 2009, 139 oil presses had been discovered, of which only two had been excavated.[151] The oil presses surveyed are either of the lever-and-weights type or of the double direct-screw type, the latter being a technology that became diffused only in the Byzantine period.[152] According to Ben-David, the aggregate production capacity of the local oil industry would have been capable of an annual output of more than 640 tons of oil, most of which would have been exported either to the north-eastern Golan or further east toward *Batanaea* and *Auranitis*, where almost no evidence of oil production has been found.[153]

The peculiar combination of polyculture, herding and micro-regional specialisation required trade, both at regional and inter-regional level, in order to function effectively. Evidence of regional commercial networks may be found, for example, in the distribution of Golan ware outside of its immediate region of production (in the northern sector of the Golan Heights). The finding of ceramic imports from Galilee and Samaria, on the other hand, testifies to the Golan's integration into inter-regional commercial networks: Kafar Hananya kitchenware and Beth Shean jars have been found at a number of sites in the Golan Heights.[154] Finally, the

[148] Ma'oz & Killebrew 1988:14. It is not clear whether the estimate of oil production and surplus margins takes into account the biannual variation in oil yields.
[149] Urman 1985:145. According to Ben-David (2009b:95), 9 wineries were also found in the eastern Golan. Simpler wine-producing installations (shallow rock-cut basins spread across the fields) have also been identified in the central Golan (Ben-Efraim 1998:5-6).
[150] Hartal 1989:12; 2006:4ff. Even in the north-eastern Golan, one should not underestimate the importance of sheep/goats. Indeed, faunal remains from Bab al-Hawa in the northern Golan (Raphael & Lernau 1996) suggest that ovicaprids made up the majority of animals reared here (60% against 20% cattle). At Tel Nov in southern Golan, instead, cattle and sheep/goats were almost present in equal numbers:Horwitz 2000:129.
[151] Ben-David 2009b:95. Out of 139 presses, 46 are located in the south, 85 in the centre and only 8 in the north and east Golan. The excavated presses are at Horvat 'ein Nashut/Deir Rahib (Ben-David 2009a) and Nahal 'ein Gev (Ben-David 1998:*5). See also Urman 1985:158-161.
[152] I follow Frankel's typology:Frankel 1999.
[153] Ben-David 1998:*6; 2009b:96.
[154] Kafar Hananya pottery has been found, for example, at Gamla, Horbat Kanaf and Ein Nashut in the central Golan, where it represents ca. 10-15% of the total assemblage of common wares: Adan-Bayewitz 1993:216-7 (fig. 11). For Beth-Shean pottery at Tell Jukhadar (Giv'at Orkha):Ma'oz 1993a:523. The study of pottery assemblages at Gamla has identified several imports including Eastern sigillata A (which makes up the majority of finewares), Phoenician semi-fine wares produced in the area of Tyre, Kafr Hananya cooking wares and Silkhin ware storage jars. These were bulky vessels produced at Silkhin in Galilee, ca. 45 km east of Gamla. The fact that ca. 30% of all jars uncovered in certain areas of Gamla

penetration of commodities such as ARS and Phocean wares inside the region shows that the Golan Heights were not secluded from larger Mediterranean trade networks, though the quantitative impact of imports on the regional economy remains difficult to assess.[155]

The economy rested primarily on a solid agrarian base coupled with regional and inter-regional trade; while barter at local level cannot be excluded, the extraordinary numbers of Roman to Byzantine coins found at many of the excavated sites (e.g. 900 coins at Bab al-Hawa, more than 100 at Tell Jukhadar) attest to a high level of monetisation.[156]

Lastly, we must discuss how scholars have interpreted the decline of settlement that occurred in the Golan Heights from the beginning of the seventh century. Some have attributed it to the alleged fall in the demand for olive oil in the Hawran following the Persian wars and Muslim conquest, but little evidence exists to confirm this theory. Rather, the fact that the Ghassanid capital of Jabiya in the Nuqrah plain became the capital of Muslim Bilad ash-Sham immediately after the Yarmuk battle and until AD 660 strongly suggests the survival of sustained urban demand for agricultural products.[157] Moreover, as noted above, excavations have generally shown that individual settlements had either already declined before the wars of the early-seventh century or that they continued to be settled until the mid-eighth century at least. Another view, defended by Moshe Hartal with regard to the northern and eastern Golan emphasises the repetition of cycles of sedentarisation-nomadisation and concludes that "agricultural villages or other kinds of permanent settlement existed only in periods of strong central government".[158]

We may now relate the main points raised thus far to the scheme of research outlined at the beginning of Part II. First, we have seen how the ecological marginality of the Golan Heights rested on the limited availability of soil for cultivation, on the difficult conditions involved in working the soil and managing water resources. Second, we looked at the diachronic development of settlement in the region, highlighting phases of intensification and abatement; for the Hellenistic to Byzantine period, the immigration policies of kings and emperors and the sedentarisation of nomadic groups have been regarded as the main causes for the conversion of the Golan Heights to intensive agriculture. Thirdly, settlement patterns have been analysed highlighting the prevalence of nucleated sites on dispersed settlement. Villages seem to have either developed from the expansion of independent and quite separate holdings, or as emanations of a central focal point, mostly a church or a synagogue. Other kinds of settlement such as monasteries or fortlets are less well known, though they certainly existed. Fourth, it has been noted that, alleged migration policies notwithstanding, there is little evidence

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came from Silkhin suggests medium-range land transport of some sort of commodity that was not locally available (perhaps wine?). See Berlin 2006:13-9; 137-55.

[155] Chaim Ben-David has identified imported late Roman finewares at 66% of the 45 sites surveyed in the central Golan (Ben-David 2006:37).

[156] For Bab al-Hawa see Hartal 1991:64; for Tell Jukhadar:Ma'oz 1993a:523.

[157] Regarding Jabiya see Shahid 2002.

[158] Hartal 1989:12.

to suggest that the emperor was actively engaged in the promotion of settlement in the Golan Heights. The most evident form of intervention regarded the establishment of a road network which must have had an indirect impact on settlement patterns. Fifth, the economy of the region has been analysed, pointing out the characteristic combination of polyculture and crop specialisation. This latter required markets that were primarily regional and inter-regional, with international trade playing a minor role. Finally, although settlement is generally believed to have been brought to a sudden end by the Muslim invasion (with economic rather than political causes being mentioned as factors of decline) Hartal's connection of phases of intensification and abatement to the presence of a stable political establishment seems more plausible and is supported by the evidence for renewed settlement under Mamluk dominance in thirteenth-century Golan.

2.2.1 The Jebel al-ᶜArab

We now turn to ancient *Auranitis*. The district that goes under the name of Hawran is divided between modern Syria and Jordan and comprises three very different ecologies: the plains of the Nuqrah (ancient *Batanaea*), the barren lava fields of the Leja (ancient *Trachonitis*), and the corrugated, rocky fields of the jebel al-ᶜArab (*Auranitis* proper). Although we shall concentrate on the latter, a brief geomorphological introduction should embrace all three micro-regions. Like the Golan, these belong to the "Bashan group", i.e. the vast basalt expanse that stretches from the desert of the Harra in the east to the Golan Heights in the west. From the Miocene (23-5.33 Ma) to the Holocene, lava flows superimposed as a result of tectonic and volcanic activity, generating a rather diverse landscape. In the plains of the Nuqrah and in the jebel al-ᶜArab, the prevalence of older lava strata explains their suitability for agriculture, which could thrive on the fertile soils generated by the weathering of the basalt. The younger Holocene basalt found in the Leja as well as in other plateaus (e.g. the Safa) is almost completely resistant to weathering: workable soil is only found in occasional depressions (derived from the "bursting" of lava bubbles), where allogeneic soil accumulates.[159] Across the Hawran, the climate is semi-arid, with rainfall reaching 400 mm/year along the western slopes of the jebel al-ᶜArab, but falling to 200 mm along the eastern slopes. The vast majority of water resources originate in the core of the jebel and are discharged by means of seasonal wadis into the larger regional basins of the Yarmuk (to the west), the wadi Liwa (to the north) and the wadi al-Aqab (which flows into the wadi Zerqa and thence into the Jordan to the south).[160] Wadis and springs

[159] Huguet 1985-6 I:7ff.
[160] Braemer 1988:104-6.

were carefully managed so as to canalise their waters toward cisterns or for the purposes of irrigation.[161]

The jebel al-ᶜArab is a mountainous region, which covers an area of ca. 1,800 km^2, peaking at more than 1,800 m asl (Tell Ghineh, 1,803 m). Because of the elevation, temperatures at the core of the region can dip to well below zero during the winter, with consequences for agriculture. By the same token, however, precipitations are also more significant, both in scale and nature: snow often covers the peaks of the mountain for months while summer mists are frequent and maintain humidity through the dry season. Still more important, whereas Suweyda at 1,000 m asl receives ca. 350 mm of rain per annum, the weather station of ᶜAin al-ᶜArab situated only ca. 6 km further east but at an altitude of 1,500 m records averages of 550 mm/year.[162] Thus, if arboriculture (and particularly olive culture) could not be pursued above 1,400 m owing to the low winter temperatures, dry polyculture could flourish below that altitude while the higher elevations afforded very good pastures and were suitable for grain crops.[163]

In the jebel al-ᶜArab, the greatest challenge posed to human occupation was represented by the shallow and extremely rocky soils, the result of small-scale Quaternary eruptions which, owing to their recent date, have yet to undergo a complete process of weathering.[164] Consequently, the thick layer of polygonal rocks scattered above the workable soil must to be cleared to make cultivation possible. This process of land clearance, which originated a characteristic landscape of stone heaps and irregular parcels marked off by boundary walls may have begun as early as the Chalcolithic. Settlements from this period to the Iron Age appear to have been mostly confined to the middle slopes of the jebel al-ᶜArab (between 800-1,000 m), as well as to the Leja: in the latter area were located, among many others, the important sites of Qarassa (Chalcolithic to Iron Age) and Labweh (EB) while the fortified site of Tell Debbeh (MB) was established along the north-western slopes of the jebel.[165] Iron Age settlement in the region remains rather obscure, though recent excavation in the upper town of Suweyda has revealed imposing fortifications and a palatial complex that have been assigned to the Iron Age II.[166]

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[161] Braemer 1988. Surveys conducted in the region have shown that ca. 40% of the villages of the Hawran are situated more than 1 km away from a wadi/spring (*Id.* 1988:101), but all were able to exploit the regional water resources by means of canalisations and cisterns. Irrigation, signalled by the discovery of dendritic networks of canals, was mostly practised below 1,000 m, and especially in the Nuqrah (*Id.* 1988:108-17).

[162] Gentelle 1985-6 I:26.

[163] See, e. g. Willcox 2003:190 (fig. 5); Gentelle 1985-6 I:23-6.

[164] Huguet 1985-6 I:13; Villeneuve 1985-6 I:70.

[165] Braemer *et al.* 2011 (Qarassa); al-Maqdissi & Braemer 2006 (Labweh); Braemer 1984:242ff. (Tell Debbeh).

[166] Dentzer *et al.* 2010:153. In recent years, some work has been done to fill the gap in our knowledge of the regional settlement in the Iron Age period. Published surveys, however, have so far dealt mostly with the Leja: Rohmer 2010.

From the second half of the second century BC to the creation of the *provincia Arabia* in AD 106, the process of sedentarisation of the jebel intensified, leading to the establishment of a wide range of sites – from burials to rural shrines and from towns to isolated farmsteads. The most important centre of the late-Hellenistic and "pre-provincial" period was certainly Kanatha (modern Qanawat), a toponym that reflects the many canals that were dug in its territory both to draw water to the town and to feed the settlements and fields of the lower slopes of the jebel.[167] The town was made part of the Decapolis by Pompey (or rather by his legate Aulus Gabinius) soon after the creation of the province of Syria and seems to have possessed a very large territory encompassing much of the central jebel and as far to the west as Kerak in the Nuqrah plain.[168] In the second half of the first century BC, the city was embellished with temples, a theatre, a *nymphaeum* and several other public buildings.[169] In the late-first century BC or the first century AD a large-scale cadastration encompassed much of the territory of Kanatha.[170] The town thus became the regional centre of a rural area which had started to display a certain variety in the patterns of settlement. Some of the tombs found in the area of Shahba and the small rural shrine of Khirbet Massakeb, located between Suweyda and Qanawat in a landscape dominated by polygonal field patterns should be dated to the mid-second century BC.[171] According to the excavators, the shrine and cult here practiced appear to be expressions of a local milieu that bears no evidence of Hellenic influence. Despite this, the finding of Ephesus lamps and Megarian bowls attests to the integration of this site into wide commercial networks.[172] A first sign of foreign influences in the region may be found in the introduction of the cult of Isis to the jebel, which an inscription found not far from Khirbet Massakeb would date to 107/6 BC.[173] A more explicit combination of Semitic religious architecture and Hellenised elements was instead present at the sanctuary of Baalshamin at Si^{c}, a famous cult site built in the late-first century BC not far from Khirbet Massakeb (see 2.2.2).[174] These sites were established among a milieu of significant agricultural exploitation. The irregular parcellation of

[167] The Aramaic toponym, reprised by the Arabic version, means "canals". Archaeological evidence for water management of the wadi Qanawat and nearby wadis and springs abounds. See Braemer 1991 (esp. 118-9; 134-5). Right after the creation of the *provincia Arabia*, canals were built in the territory of Kanatha to bring more water to the city. The epigraphic evidence was gathered by Dunand (1930).
[168] On the size of the territory of Kanatha up to the late-second century, see Sartre 1981 (who sums up earlier views).
[169] Freyberger 2000; 2005.
[170] Leblanc & Vallat 1997:38-43; 54.
[171] For the tombs of Shahba see Sartre-Fauriat 2001 I:151-9.
[172] Dentzer 1999:244-50; Kalos 1999. The shrine, which underwent several transformations in the course of its occupation, remained in use until the early-first century AD (*Id*. 1999:786). For a discussion of the ceramic material see Renel 2010. The Ephesus lamps were in all likelihood offers brought to the shrine by pilgrims, but the very fact that the local worshippers of this small rural shrine could obtain these objects is significant.
[173] The inscription, a bilingual Aramaic-Greek, was found in re-use in a winery (Sia 21, see below) in the valley north of the hill of Si^{c}. The reading of the text given by Milik (2003) suggests that it bore reference to the introduction of the cult of Baalshamin, Isis, Seia (the local deity) and the Malak-Elaha, the "angel of God". The date of 204 according to the Seleucid era corresponds to 108/7 BC and not to 105/4 BC as in the *editio princeps* (Sartre 2001:897 n. 63).
[174] *PPUAES* IIA:365-402; Dentzer-Feydy 1985-6 II:256-9.

the territory between Suweyda and Qanawat, for example, was in place before the Roman routes linking Suweyda and Qanawat with Si[c] were laid out.[175]

There has been debate over the scale of sedentary-nomadic contacts and the extent to which nomads contributed to the sedentarisation of the Hawran in general and the jebel al-[c]Arab in particular. The evidence is mostly epigraphic. The milieu of Greek, Nabataean, Aramean and Safaitic inscriptions that characterises the *Auranitis* suggests that this region acted as a major node of connectivity between nomads and settlers, but the nature of the relationship remains controversial. The very existence of a relationship (beyond exceptional cases) has often been questioned because, until recently, *Auranitis* had only yielded few Safaitic inscriptions, the characteristic graffiti written by the nomads of the Harra semi-desert.[176] However, a recent survey conducted by H. Zeinaddin in the jebel has identified more than 400 Safaitic texts, mostly at Rushaida (a centre located at the bottom of the eastern slopes of the jebel), but also at Mushannef, Salah and Malah, and even at Hebran and Hut on the western slopes of the mountain.[177] These texts leave no doubt that the areas occupied by sedentaries and nomads overlapped in the jebel al-[c]Arab and have lent support to the theory – defended especially by Maurice Sartre – of a penetration of the Safaitic tribes in the mountain.[178] Studying the Greek epigraphic record, Sartre pointed to the presence of *phylai*, *genoi*, *ethnarchai* and, more broadly, of an Arabian onomastic tradition in the jebel which shares much with that of the Harra, but little with the Nuqrah plains.[179] For these reasons, Sartre believed that *Auranitis* had been the stage not only of continuous interaction between the Aramaic villages of the mountain and the Arabian tribes of the Harra, but also that groups belonging to the latter had settled down in the jebel al-[c]Arab.[180]

The push toward sedentarisation must be also read in connection with the increasing stabilisation of the region following the establishment of the province of Arabia in AD 106.[181] This led to wide ranging transformations in the landscape. The town of Suweyda, for example, was greatly expanded in the second century, with the addition of a large monumental quarter to the south-east of the citadel that comprised a theatre, an odeon and a large basilica.[182] Through the second century AD, many of the villages of the mountain acquired temples (e.g. [c]Atil,

[175] The thoroughfares cut across the parcelled landscape. Gentelle 1985-6 I:40; Villeneuve 1985-6 I:128. The date of these roads remains uncertain, but is unlikely to have preceded the creation of the province of Arabia (Bauzou 1985-6 I:151-6).
[176] Villeneuve 1989:136; MacDonald 1993. For an introduction to the pre-Arabic dialects, including Safaitic, see MacDonald 2008.
[177] Zeinaddin 2000.
[178] Sartre 1982a; 1982b; 1992a (=1997).
[179] On onomastics see Sartre 1985:147-8; 1992:47.
[180] Sartre 1992a:43-5. This position has been attacked most notably by MacDonald (1993), who established a firm distinction between the inhabitants of the jebel and those of the semi-desert to the east.
[181] From AD 106 to the Severan period, the jebel al-[c]Arab remained divided between the provinces of Syria and Arabia; between AD 195-214 the region was re-unified in the *provincia Arabia* together with *Batanaea* and *Trachonitis*. Sartre 1982a:50-61; Bowersock 1983:99-116.
[182] Dentzer *et al.* 2010:155-6. The expansion of Suweyda may have occurred when it was promoted to *polis*, not later than under Commodus:Wadd. 2309 (with comments in Sartre 2001:644 n. 29).

Sleim, Mushannef etc.). The most significant transformation of the Roman period was, of course, the founding of the imposing city of Philippopolis (Shahba) on what had been the humble birthplace of the emperor Philip the Arab.[183] The growth of large nucleated settlements went hand in hand with radical improvements in the exploitation of the landscape. Judging from the surface pottery recovered in the course of intensive surveys in the jebel, the majority of canals and barrages were built during and after the second century AD.[184] To this period also belong, in all likelihood, small-scale cadastrations in the environs of ᶜAtil, which Leblanc and Vallat interpreted as a sign of the growing independence of this town from Qanawat.[185] Judging from the epigraphic record of the Roman and, in particular, late Roman period, settlement of veterans appears to have played an active role in the further occupation of the jebel, though the onomastic pool makes it likely that most of these former soldiers were themselves natives of the region rather than settlers with a foreign background.[186]

Alongside nucleated settlements, dispersed dwellings also existed and have been been recorded in significant numbers by field surveys across the jebel (and especially in the areas of intensive survey between Hebran and Tell Ghineh, between Siᶜ and Tell Quleib and between Salkhad, Samad and Umm al-Qottain). In the plateau surrounding Tell Quleib, Leblanc and Vallat have discovered hamlets comprising up to 40 houses and fortified farms scattered in the landscape, all of which have yielded pottery dated primarily to the Byzantine period and later.[187] Most of these sites display continuity into the Umayyad period and also, significantly, a renewed phase of settlement in the Ayyubid and Mamluk period. Surface pottery surveys conducted in the central and southern jebel al-ᶜArab have shown that Umayyad settlement was primarily located along the western slopes of the mountain, with a prevalence of hamlets and small villages (20-30 houses). For the Medieval period, settlement, indicated by the finding of Ayyubid-Mamluk painted wares and glazed pottery spread more evenly across the region, expanding to the south and east of the jebel. Sites were again mostly nucleated, though fortified structures on top of volcanic plugs and tells were also occupied at this time. Confirmation of the continued settlement of the region after the Arab takeover is also found in the Greek epigraphic record, which we can trace until the beginning of the eighth century. Thus, a tomb was built in Salkhad on the very year of the Arab invasion (AD 633/4) and another burial was added to it in AD 665/6. Another building, perhaps a tomb again, was built in Melah to the north-east of Salkhad in AD 644/5. Finally, the latest-dated Greek inscription was found at Kafr, south-east

[183] Darrous & Rohmer 2004; Oenbrink 2006 (on the passage from village to city); Dentzer *et al.* 2010:158-62.
[184] Braemer *et al.* 2008:10.
[185] Leblanc & Vallat 1997:55.
[186] Examples of soldiers/veterans: Dussaud & Macler 1903:256 n. 45 (Qeisama); Wadd. 1989; 1999 (Salkhad); 2055 (Umm al-Ruman); *IGLS* XIII/2 9778 (Ghariyeh al-Sharqiyeh).
[187] E. g. the hamlet of Buraq to the east of Tell Quleib (Braemer 1993:123) and the farms Quleib 57-9 (Vallat & Leblanc 2008:22-7) and that of Kheurbeh (Braemer 1993:124), respectively north and north-east of Tell Quleib.

of Suweyda, and may have commemorated the building of a chapel finished in AD 705/6-720. [188]

From the Roman to the Arab period, the basic nucleus of the society of *Auranitis* was the rural house, which displayed the typical features of Hawrani private architecture described for the Golan Heights. After Butler's pioneering work at the beginning of the twentieth century, scholars have recently returned to the study of private architecture in the region. Hawrani houses tended to be arranged on an "L" or "U" plan, i.e. with built structures taking up two or three sides of a courtyard.[189] They developed on two or three stories, with the basic module comprising a central arched room (with ceilings as high as 6 m) and a smaller room at the back or on one (or more) of the sides. The main room was separated from the smaller ones by a "window wall", a structure comprising low windows that were often used as mangers. Unlike the central, arched room these smaller rooms were corbelled and surmounted by another level to which access could be gained by means of a ladder. This upper room could be used for storage or as sleeping quarters (in the case of particularly humble dwellings, such as those of Si^{c}, see below). This module could be doubled in height or length; in the former case, the upper storey normally served as the dwelling quarters of the household and could be accessed via a ladder, a staircase or a porticoed terrace.[190] As common for Levantine housing, the ground floor was used mainly for economic activities: the lateral rooms often housed stables, while other spaces (most often windowless) were reserved for storage.[191] Excavation of a group of houses in Si^{c} has also shown that *dolia* were sometimes sunken into the floor to store produce.

The villages of the Hawran, and particularly the larger ones, appear to have come into being through the process of expansion of initially independent farms. They thus belong to the "dispersed" type described above for the Golan, though the excavation of the village of Si^{c} suggests that "introverted" villages also existed (see below). The epigraphic record suggests the gradual development – from the second through the sixth century – of village institutions and magistracies. The rare inscriptions dated to the second century suggest that the first village officials to be known in the jebel were the *ekdikoi*, a college of magistrates apparently acting as representatives of their communities in the building of (mostly religious) structures.[192] These officials are soon found alongside (or replaced by) *pistoi*, *pronoetai*, *epimelêtai* and *episkopoi* all of whom seem to have been mostly charged with the successful direction or surveillance of

[188] Wadd. 1997 (Salkhad); Wadd. 2028 (Melah); Ewing 1895:275 n. 150 (al-Kafr). The reading of the figure for the decades and units is uncertain in the latter inscription. Ewing proposed that XIE be read, which would yield the year 615 according to the era of Bostra, equivalent to AD 719/20.
[189] Central courtyard houses are comparatively rarer: see e. g. Clauss-Balty 2010:202.
[190] Villeneuve 1985-6 I:96-8. Clauss-Balty 2008:57-9; 2010:203-4. The introduction of the arch in the Hawrani architecture was obviously due to the Romans. Villeneuve (1985-6 I:98) notes that the upper quarters of houses were sometimes termed *triklinoi* (e. g. *AAES* III nos. 367-8, from al-Hayat in the northern jebel al-^{C}Arab).
[191] Villeneuve 1985-6 I:96 (who points to *PPUAES* IIIA 696, an inscription in situ in an ancient house attesting to the building of a *boustasion*, a stable for cattle).
[192] E. g. *PPUAES* IIIA 659 (AD 155, from Hebran), in which three *ekdikoi* build a *naos* out of the revenues of the sanctuary itself. For more cases of *ekdikoi*, see McLean Harper 1928:135-6.

village-funded building projects.[193] Village *strategoi* also make an early appearance, with an inscription from Shahba dated between AD 177-80.[194] The *strategeia* was here, as in the later inscriptions in which it appears, the eponymous magistracy and likely the most important institution of the village.[195] From at least the third century, village communities (e.g. *to koinon tês kômês*) were also regularly sponsoring buildings out of a communal revenue (*ek idiôn*/ *tôn tou koinou idiôn*), which may have been acquired via rents on village land or on the use of communal structures (e.g. water management infrastructure, threshing floors etc.), fines on various violations and individual donations.[196] Village councils in imitation of the urban *boulai* may have existed, since *bouleutai* are sometimes attested, though in most cases they appear to have been councillors of the cities of Kanatha, Dionysias or Philippopolis.[197] If village councils existed, they should probably be likened to the councils of elders known for other regions (e.g. the Limestone Massif, see section 4.2 below). Alongside the local sheikhs, veterans who settled in the jebel seem to have played an active role in their host communities for they often appear as holding some of the local magistracies (e.g. Alexander and Severus, veterans and *episkopoi* at Salkhad).[198] The great number of inscriptions attesting to village officials and village finances has led scholars to believe that *Auranitis* was in the hands of self-administrating villages of freeholders.[199] Indeed, while evidence exists that the Nuqrah may have been included in an imperial estate, the same cannot be said of the jebel al-ᶜArab.[200] Large private estates, if they existed, have also left no trace.[201]

The network of villages co-existed, from the Roman to the Arab period, with a dense pattern of dispersed settlement including hamlets, monasteries, farmsteads and other agricultural infrastructures. In the absence of excavation and given the limited number of inscriptions referring to archimandrites and monks, monasteries have been generally difficult to detect. A possible exception may be that of the structure situated atop Tell Jefneh due east of Mayamas in the central jebel al-ᶜArab.[202] An inscription from Kafr (SE of Suweyda) attests to the existence of a monastery of Ataos, which had also a wine cellar.[203] Archimandrites and abbots are attested by a text from Salkhad and two texts from villages along the lower slopes of the jebel at ᶜAmra

[193] McLean Harper 1928:123ff.
[194] IGRR III 1195. On village *stratêgoi* see also Grainger 1995.
[195] McLean Harper 1928:120.
[196] McLean Harper 1928:142-52.
[197] See, for example, *IGLS* XIII/2 9815, where the *bouleutês* directing the construction of a building sponsored by the city of Kanatha in the vicinity of Umm Walad was certainly a councillor of Kanatha supervising work in the territory of the city. See also Sartre 1993:121-2.
[198] Wadd. 1989.
[199] Sartre 1993:120.
[200] Α σάλτων Βατανέως is attested in George of Cyprus' *Descriptio* (p. 204 ed. Gelzer). See also Sartre 1999:219ff.
[201] No *epoikia* are known from the Tetrarchic boundary markers of *Auranitis*, though they appear in other regions (e. g. the Limestone Massif, see Part IV. 1).
[202] Braemer 1993:126.
[203] Ewing 1895:276 n. 152 (οἰνοθήκη [τῆ]ς [ά]γ[ί]ας μο|νῆς Ἀτάους ἐκ σπου|δῆς ἀββᾶ [Ἡ]δούλου). Μονή is used instead of μοναστήριον in several inscriptions:see Piccirillo 1994:528.

(NE of Shahba) and Ghariyeh al-Sharqiyeh (W of Suweyda).[204] Farmsteads, instead, were much more widespread. They often comprised one or more towers set against the corners of the structure. Sherds of dolia and other storage jars found at several such farms suggest a primary use for storage rather than dwelling (finewares are rarely found in these structures).[205] Towers may have also served for storage, as suggested by their association with wineries.

These represent another notable aspect of the landscape of *Auranitis*, and particularly of its northern and western slopes, where wine production was likely practiced on a large scale (see below, 2.2.2 for the case of the Si^{c} valley). As in other marginal zones, the economy of the jebel al-^{c}Arab was based on polyculture and herding combined, in the western half of the region, with specialised viticulture. Two inscriptions from Kafr (SE of Suweyda) and Kerak (W of Suweyda) respectively inform us of the existence of vineyards and a wine cellar, the latter belonging to the monastery of Ataos mentioned above. The inscription from Kerak refers to the establishment of a vineyard and the building of an unspecified structure in AD 511/2. This *ktisma* may have been a tomb, but also – given its placement among vineyards – a communal wine press.[206] Indeed, wineries in the Hawran were overwhelmingly located among the fields rather than within or in the immediate periphery of villages (as usual in the Golan and Limestone Massif). Surveys conducted in the jebel al-^{c}Arab, and particularly in the area between Si^{c} and Tell Quleib and to the south-east of Shahba have identified a great number of such structures, varying in plan and complexity. Simple wineries, comprising only a treading floor and a wine-vat cut directly into the bedrock were recorded in the plateau south of Si^{c} along the road leading to the al-Rum dam and to the east of Tell Quleib, where two such presses were found in close proximity to the fortified farm of Kheurbeh.[207] More frequently, however, presses present more elaborate plans, with the inclusion of several compartments surrounding the central treading floor, this latter being often paved and provided with a morticed block used to anchor a direct-screw press.[208] Because of these features, the majority of wineries of *Auranitis* bear resemblance to the "complex wineries" of Palestine, which found broad diffusion in the Byzantine and Umayyad periods.[209] Compartments built around the treading floor were either used as unloading areas or as additional treading floors though the latter seems more unlikely in the jebel al-^{c}Arab (as

[204] Dussaud & Macler 1903:254 n. 40 (Salkhad); Wadd. 2094 ('Amra); *IGLS* XIII/2 9770 (Ghariyeh al-Sharqiyeh). The *Letter of the Archimandrites* containing a list of monophysite monasteries makes known to us that by AD 570 a monastery was also established at Nemreh in the northern jebel al-^{c}Arab (Nöldeke 1875:437).

[205] Braemer 1984; 1993 (*passim)*; Vallat & Leblanc 2008:22-3 (with regard to farm Quleib 59).

[206] Ewing 1895:276 n. 152 (Kafr); *IGLS* XIII/2 9803 (Kerak). The integration of lines 6-7 in τοῦ λ[ην]|οῦ ὁμοῦ would not be impossible, though Sartre and Feissel read M at the end of line 6.

[207] Braemer 1993:124; Dentzer *et al.* 2003:128; Vallat & Leblanc 2008:34 (Pl. 4).

[208] For this kind of press, which is widely attested in Palestine, see Frankel 1999:144 (map 37). Studies conducted on Palestinian wineries suggest that this technique came in use in the Byzantine period (despite having been invented long before this time). To this type of winery belong the 'pressoirs "ronds"' to the south of Shahba (Dentzer *et al.* 2003:142-3; Darrous & Rohmer 2004:35) and the large wineries of the Si^{c} valley described below (2. 2. 2).

[209] Frankel 1999. For some examples of complex wineries from Israel see Yevin & Finkielsztejn 2009 (H. Castra); Yanai 2009 (Tell Hefer). From Jordan:Piccirillo 1997; *Id*. 1998 (Umm ar-Rasas). Khalil & al-Nammari 2000 (Kh. Yajuz); Genequand 2001 (Wadi al-Qantir).

opposed to similar structures in the Negev, for example) given the limited surface of these compartments. Many of the wineries of the Si^{c} valley, moreover, displayed an organisation on two levels, with each compartment being associated to a wine-vat, a solution probably adopted to maximise yields while making an efficient use of labour. With this arrangement, the winery Sia 353 was theoretically capable of producing as much as 14,000 litres of wine for each usage, and possibly more than 40,000 litres per vintage season. These figures (to which we return below, section 2.2.2) provide a rough order of magnitude of the scale of wine production in this area, and beg the obvious question of how surpluses might be utilised.

This, in turn, leads us to discuss the evidence for trade of local commodities. Like for the Golan Heights, there is no clear case of a transport vessel that might have been used to move surplus wine outside of the jebel. Yet, there is little doubt that this product was commercialised. Sartre has noted that the "mountain of Busra, with its unforgettable vineyards" mentioned by al-Muqaddasi (§119) can be none other than the jebel al-^{c}Arab. Consequently, the "Busra wine" praised in pre-Islamic poetry would have been mainly produced in *Auranitis*, transported to Bostra in local transport vessels or wine skins and then re-bottled in the city which was a major trading centre for Hijazi merchants.[210] Thus, the wine of *Auranitis* may have reached Yathrib and Mecca on the back of camels, though conclusive evidence for this is still lacking. If exports are only known through indirect references in the literary sources, evidence of the jebel's integration into wide commercial networks may be found in the record of imported ceramics. In the Roman period, imports are mainly made up of Eastern sigillata A and B, which is attested at several of the nucleated sites (villages and hamlets) surveyed in the 1980s and 1990s.[211] From the late Roman and Byzantine period, imports of finewares and amphorae become more frequent: ARS, Late Roman C and D wares are found at many sites; at Suweyda, instead, commercial relations seem to have favoured southern routes, as testified by the abundance of Jerash bowls. Imported amphorae are mostly Late Roman Amphora 1 (LRA 1A & B) from the Cilician coast and Cyprus and bag-shaped amphorae from Caesarea Maritima and Scythopolis.[212]

We conclude this survey of settlement in the jebel al-^{c}Arab with a reflection on the fate of the region after the Arab conquest. Intensive surveys have revealed continuity of settlement, though with significant local variations. In the central and western jebel, settlements founded in the Byzantine period often survived through the early-Abbasid period, whereas the eastern and southern sectors, characterised by more challenging environmental conditions, seem to have reverted to a pattern of less intensive occupation. It is possible that in these latter areas, which

[210] On Bostra as a commercial hub see Sartre 1985:129-32. Nabigha adh-Dhubyani, *Diwan* §30:9-10 (which mentions jars of Busra wine being taken from Beit Ras to a certain Luqman, possibly a merchant, and subsequently to a fair). Crone 1987:118; Shahid 2009:148.
[211] Braemer 1993 (e. g. Khirbet al-Deir, al-Melli, Kharab Shbeh). Imports of Eastern sigillata A grow significantly between the pre-provincial and provincial periods at Qanawat: Henrich 2002:251-2; 2003:66 (for a pie chart of attested forms).
[212] Renel 2010:538-42.

had a stronger vocation as a frontier zone, settlement had depended more heavily on the presence of military detachments that were no longer stationed under the caliphs. Finally, survey findings suggest that, after a period of depopulation in the ninth and tenth centuries, the jebel al-ᶜArab as a whole witnessed some degree of re-settlement in the Ayyubid period which – as in the Golan Heights – further intensified in the Mamluk period.

As in the case of the Golan Heights, we began this survey of the jebel al-ᶜArab by pointing out the geomorphological and ecological conditions that make it a marginal environment for agriculture. In several respects, these conditions were no different from those of *Gaulanitis*, though *Auranitis* was also characterised by lower annual rainfall, which made inter-annual variability all the more dangerous for agricultural exploitation. Despite these difficulties, the sedentarisation of the jebel began as early as the Bronze Age, though settlement did not spread to the entire region until the late-Hellenistic and Roman periods. As noted by Hartal for the Golan Heights, it would appear that the emergence of strong state organisations in the Roman, Byzantine and Mamluk periods had a fundamental role in triggering phases of settlement intensification. The increased level of security afforded by the state made it advantageous for the locals to abandon a semi-nomadic lifestyle (which was more suited to the local ecology) and opt for long-term investment in agricultural valorisation. Consequently, scholars such as Sartre and Villeneuve have argued that nomadic groups (and especially the Safaitic tribes of the Harra pre-desert) would have settled in the region at the time of the Roman conquest. But sedentarisation of nomads was not the only cause of settlement intensification. Judging from the epigraphic record veteran settlement, particularly in the southern and eastern jebel, must have also played an important role. In the Roman period, settlement was primarily nucleated, with towns such as Kanatha and Soada emerging as important cities and villages like ᶜAtil and Mushannaf acquiring public buildings of some importance (temples, water management infrastructure etc.). Perhaps more importantly, inscriptions attest to the gradual development of village institutions, which were called upon to answer the needs of seemingly autonomous communities. Unlike *Batanaea*, in fact, little evidence exists that the jebel al-ᶜArab was ever dominated by the large estate (whether private or imperial): the presumption must be that local communities were primarily made up of small and middling owners.

From the Byzantine period, an increasingly dense pattern of small hamlets, fortified farmsteads and agricultural installations filled in the gaps between villages, signalling a new phase in the agricultural exploitation of the region. To this phase must be attributed the increasing specialisation in wine production that characterised the western slopes of the jebel. The large wineries of Byzantine and Umayyad date discovered in the area of Siᶜ attest to this specialisation in the clearest terms. Surplus wine was probably transported in perishable containers to Bostra, where it was purchased by Arab merchants as recorded in pre-Islamic poetry.

From the Bronze Age to the Umayyad period, the jebel al-ᶜArab always acted as a crossroads between nomads and settlers. Exchange of products between the different human groups living at either side of the jebel was likely the most significant determinant in the regional history of settlement and its economy. For this reason, it might be particularly helpful to offer an in-depth study of the evolution of settlement in the hinterland of Siᶜ, which owing to its hilltop sanctuary emerged, since the pre-provincial period, as a key node of connectivity between the fertile plains of the Nuqrah and the basalt desert of the Harra.

2.2.2 *The valley of Siᶜ: a micro-regional case study of settlement development*

In discussing the choice of Siᶜ and its hinterland for a study of settlement development in southern Syria, Jean-Marie Dentzer noted the strategic placement of this site on a thoroughfare that crossed the jebel al-ᶜArab, thus connecting the desert fringe of the Harra with the agricultural settlements of the basalt plateau. The valley that Siᶜ overlooked was thus "un débouché naturel pour les hommes (en particulier des nomades ou semi-nomades) et les produits (surtout ceux de l'élevage) de la montagne et aussi, plus loin à l'est, de la steppe".[213] Moreover, the narrow escarpment of Siᶜ ("levelled square" in Aramaic) housed, since at least the first century BC, an important sanctuary, a regional pilgrimage centre that attracted peoples from far afield and royal and imperial benefactions from the Nabataean kings to Herod, from the emperor Claudius to the governor of Arabia Iulius Heraclitus.

The hinterland of Siᶜ (overall an area of ca. 500 ha) shows clear evidence of occupation – and agricultural intensification – down to the mid-Abbasid period, thus allowing us to follow the unfolding of settlement over the *longue durée*, from the first steps toward comprehensive field clearance (begun in the Hellenistic period) to the appearance of the hilltop sanctuary of Baalshamin, from the decline of the large village of Siᶜ to the appearance of Byzantine and Umayyad industrial wineries scattered across the fields.

Decades of excavations have shown that, from the second century BC to the Umayyad period, two phases of settlement may be distinguished. From the late-second century BC to the late-third century AD the development of the locality depended on the establishment of the hilltop sanctuary, which soon grew to become an important religious centre and a point of contact between sedentaries and nomads. In this phase, the growth of the religious landscape was associated with the appearance of a great number of tombs scattered in the valleys to the north and west of Siᶜ. From the late first or early second century AD, an "introverted village" of some importance also developed to the east of the hilltop sanctuary. Despite much of the parcellation of the territory occurred in this period, the village of the hill did not grow as a consequence of agricultural intensification, but was symbiotic with the sanctuary so that when the latter declined in the late third century, the village was gradually depopulated. By the

[213] Dentzer 2003:5.

beginning of Late Antiquity the hilltop village of Si^{c} had been abandoned, while the nearby agricultural hamlets of Khirbet al-Krum, Khirbet al-^{c}Anz and Khirbet Khassin continued to be occupied; isolated farmsteads were also established at this time. This period is characterised by the development of intensive agricultural production as witnessed especially by the building of an impressive number of wineries. The complexity of these structures and their capacity of production seem to suggest production for the market until the late Umayyad period.

The cult of Baalshamin (the "lord of Heaven"), to which the hilltop sanctuary of Si^{c} was primarily dedicated, was apparently practiced locally since at least the late-second century BC.[214] This cult fits well into a picture of developing sedentary occupation: Baalshamin – a Phoenician god of rain and vegetation – seems to have been particularly worshipped in those areas in which sedentary agriculture had begun to develop.[215] Indeed, it is precisely in the second century BC that sedentary settlement had shown clear signs of development in the region: only ca. 2 km to the south-west, the small rural shrine of Khirbet Massakeb seems to have been founded at this date judging from the pottery evidence.

Contemporary to these developments was a progressive land clearance in the plateau and valleys between Suweyda to the west, Qanawat to the north, Si^{c} to the east and Tell Quleib to the south. It has been noted above that the polygonal parcellation that characterises this landscape was significantly earlier than the Roman roads that cut across it. A more precise dating may be supplied by studying the *tumuli* tombs scattered across the hinterland of Si^{c}. Of the ca. 100 tombs that have been recorded, some have yielded material dateable between the mid-first century BC and the early-first century AD, suggesting that intensive occupation of the area began in this period.[216]

Whereas the cult and decor of Khirbet Massakeb show no sign of Hellenisation, the earliest structures of the great shrine of Baalshamin at Si^{c} are clearly informed by a combination of Semitic religious architecture and Hellenic motifs which fits well with the chronology of development of the sanctuary. Construction at Si^{c} in fact began as early as 33 BC and continued through the third century AD: by the 260s, the sanctuary comprised at least three monumental courts and an equal number of temples and possibly a via sacra terminating in the valley to the north of the sanctuary in a small shrine which the excavators termed Sia 8 (Fig. 2.1).[217]

[214] See above, note 173.
[215] Sourdel 1952:19-31; Teixidor 1979:84; Niehr 2003.
[216] For the tombs of Si^{c} see Sartre-Fauriat 2001 I:174-91.
[217] For a description of the sanctuary:De Vogüé 1865-77 I:31-8; *AAES* II:334-40; *PPUAES* II:365-402. Since the late 1970s, it has been the object of excavation by the Syro-French "Syrie du Sud" mission. See Dentzer *et al.* 1985:67-75; Dentzer-Feydy 1985-6 II:265-9; Dentzer-Feydy *et al.* 2009; 2010.

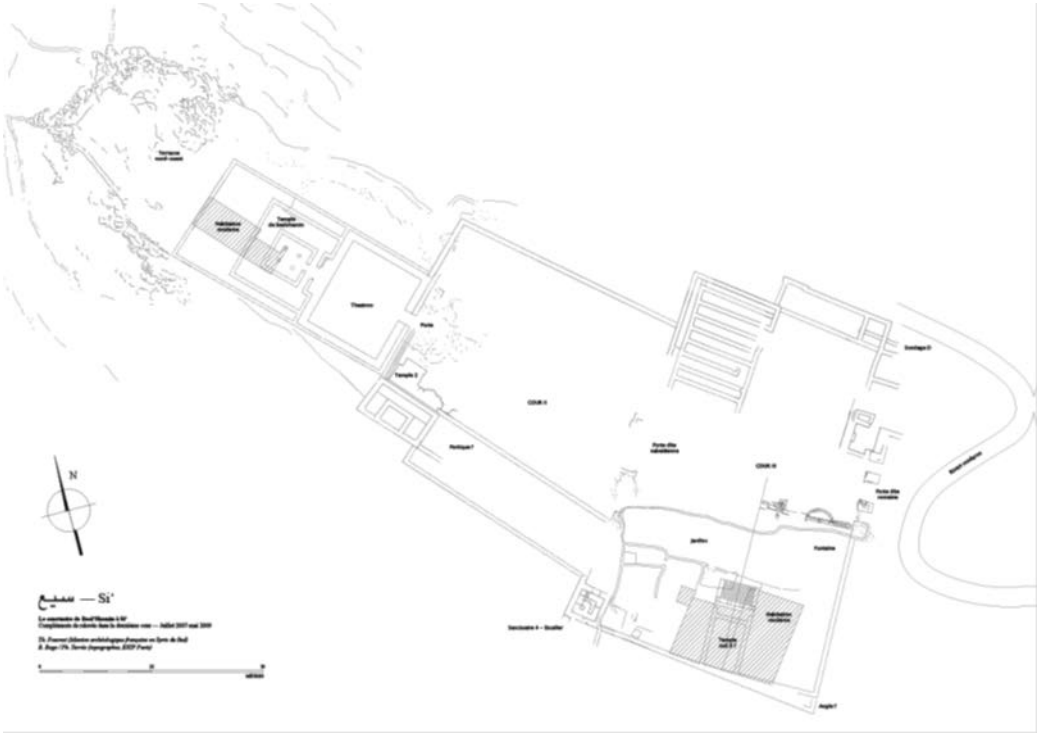

Fig.2.1.The plan of the sanctuary of Baalshamin at Si^{c} (Dentzer-Feydy *et al.* 2009)

The core of the sanctuary, which comprised the westernmost temple and the *theatron* (a peristyle court lined with high benches) was built over the course of thirty years by the family of Mu^{c}aiyru.[218] The wealth and time that this family invested in the building of the sanctuary make it likely that they may have also been involved in the priesthood of Baalshamin. What was the origin of the financers? For long, the Aramaic inscriptions of Si^{c} have been termed "Nabataean", thus identifying the first builders of the sanctuary with the Nabataean Arabs who had their capital at Petra. A closer investigation of the epigraphic evidence has shown that the Semitic inscriptions recorded in the Hawran displayed a high variability in the use of scripts, with locally developed variants of the Aramaic alphabet intermingling with the Nabataean script known in Petra.[219] According to Macdonald, the choice of the script was not determined by ethnic or political considerations but rather by the formation of the scribe to whom the inscription was commissioned.[220] More recently, the thesis of the Nabataean origin of the builders of the sanctuary of Baalshamin has been reprised by Tholberq, who has drawn attention to the fact that, when construction began in 33 BC, the area was under Nabataean control.[221]

Whether we believe that the benefactors of Si^{c} were wealthy Nabataeans or a prominent local family perhaps residing in Kanatha or Soada, there is no doubt that the hilltop sanctuary at Si^{c} emerged as one of the most important religious centres of southern Syria. Its location in proximity to the highland pastures frequented by semi-nomads and nomads to the east and the

[218] The inscriptions are *PPUAES* IV 100; *AAES* III 428b; CIS II 164 + Wadd. 2366.
[219] Starcky 1966: cols. 930-1. According to Milik (2003:270) only the founding inscription from Si^{c} (*PPUAES* IV 100) dated to 2/1 BC was written in the local "Hawran script" while the funerary inscription *PPUAES* IV 2 (5/4 BC) and the bilingual CIS II 164+ Wadd. 2366 adopted the Nabataean writing.
[220] Macdonald 2003a:54.
[221] Tholberq 2007.

fields and orchards of the settlers to the west made it a suitable point of contact between different groups.[222] The sanctuary of Baalshamin seems to have been particularly popular among the nomadic tribes of the Harra: at least four Safaitic inscriptions make direct reference to Si^{c} and its sanctuary, and one even explicitly mentions a pilgrimage to the sanctuary.[223] The active participation of nomadic tribes to the rituals of Si^{c} may be signalled by a famous bilingual Aramaic-Greek inscription originally located on the pedestal of a statue in front of the *naos* of Baalshamin. The statue was erected by the δῆμος τῶν Ὀβαιασηνῶν in honour of Malikat "the younger", the grandson of the founder of the temple, who had himself expanded the *naos*. Commentators have noted that this expression, which translated the Aramaic *'l ^{c}byšt*, could only be a tribe, and many were quick to point to the Safaitic *'l ^{c}bs^{2}t*, found on some graffiti of the Harra, as the nomadic group to which the *Obaiasenoi* of Si^{c} should be likened.[224] Be this as it may, the references to the cult place of Si^{c} in Safaitic graffiti and the finding at Si^{c} of a fragment of an inscribed vessel bearing Safaitic characters (*l hws*, "the man with a sunken eye") leave no doubt as to the fame attained by this hilltop sanctuary among the nomads of the Harra.[225] Whether the pilgrimage to the hilltop sanctuary of Si^{c} also provided opportunities to market products is difficult to prove: unlike at Khirbet Massakeb, pottery imports are fairly rare at Si^{c} (except for eastern sigillata). Yet, the great number of coins found at Sia 8, the building that, from the first century AD, likely functioned as the first stage along the sacred way to the sanctuary, testifies to a high degree of monetisation in the area and the conditions for trade.

Numismatic evidence also allows us to return briefly on the issue of state sponsorship of the sanctuary of Baalshamin. The role of Si^{c} as a node of inter-regional connectivity between sedentary and nomadic groups would have made it a strategic site along (or rather, just north of) the north-south frontier between the Idumeans and Nabataeans up to the end of the first century AD, and later between the provinces of Syria and Arabia. Thus, it would not be surprising to find that rulers – whether Nabataean, Idumean or Roman – were involved in the sponsorship of building activities in the sanctuary. The erection of a statue to Herod the Great in the portico of the *naos* of Baalshamin may indicate that the king had somehow benefitted the sanctuary.[226] Under the reign of the tetrarch Agrippa II (AD 55-93), royal sponsorship becomes all the more obvious: an unspecified structure (possibly the "Nabataean gate") was built by a certain Aphaerus who was in all likelihood a royal freedman.[227] In the Roman period, the imperial authorities recognised the importance of the sanctuary of Baalshamin as evidenced by the fact

[222] Millar 1993:394-5. More recently Niehr 2003:231ff.
[223] Macdonald 2003b.
[224] Millar 1993:395; Sartre 1992:47. For Grushevoi (1985) the *'l cbs2t* were a Safaitic tribe that settled in the region of Si^{c}. Against this view see Macdonald 1993.
[225] Macdonald 2003c (Safaitic inscription from Si^{c}). In his article of 1993, Macdonald underestimated the scale of the Safaitic presence in the jebel. The hundreds of Safaitic inscriptions discovered by H. Zeinaddin (see 2. 2. 1) in the eastern sector of *Auranitis* have proven that the authors of these texts did indeed roam the jebel.
[226] Wadd. 2364; Kropp 2010:7.
[227] Wadd. 2365.

that the road Suweyda-Mushannef was made to pass from Si^{c}, bypassing Qanawat. In the sanctuary, the legate Iulius Heraclitus, who was governor of Arabia in AD 264-84 added doors (*thyrai*) to the so-called "Roman gate" and surrounded with a *peribolos* the easternmost courtyard.[228]

Nabataean influence, may have not taken the obvious form of royal sponsorship, but was cultural and, perhaps, economic. If the great numbers of Nabataean coins (ca. 37% of the overall numismatic finds at Si^{c}) testify to the latter, cultural influence finds its expression in the transformations of the local art.[229]

The importance of the sanctuary of Baalshamin had dramatic consequences on the development of settlement in the area surrounding the cult place. Until at least the reign of the Idumean tetrarch Philip, the sanctuary and its hinterland might have enjoyed administrative autonomy in the fashion of the sanctuary of Baetocaece in the Lebanon.[230] Two different kinds of evidence support this view. First, two "Nabataean" inscriptions employ the Seleucid era at a time when Kanatha, the city in whose territory the sanctuary theoretically lay, should have been using the Pompeian era. Unfortunately, Kanatha and its territory have not yielded any dated inscriptions for the period preceding the first century AD; from then on, dated inscriptions always adopted imperial regnal years (or the regnal years of the Herodian tetrarchs) rather than the "Decapolis era", which made its first appearance only on coins minted in Kanatha in AD 38/9.[231] Second, the countryside surrounding Si^{c}, and particularly the fields to the west and south of the rocky escarpment, do not seem to have been affected by the large cadastration project that Leblanc and Vallat recognised in the area of Tell Quleib and around Suweyda, and which they tentatively assigned to operations conducted by the *polis* of Kanatha in the wake of its inclusion into the Decapolis after 64/3 BC.[232] Indeed, an east-west boundary wall (Sia 292) which divides two rather different forms of land exploitation cuts across the plateau to the south of Si^{c}: to the north of it lies a pattern a polygonal parcels while to the south the land was organised according to the cadastre of Kanatha (Fig.2.2). Although conclusive evidence is lacking, these elements force us to entertain the possibility that the sanctuary of Baalshamin had enjoyed self-governance up to the first century AD.

[228] Arnault (2010 I:71-8) follows Villeneuve in arguing that the inscription on the architrave of the "Roman gate" (*AAES* III 432) would have been considerably earlier than that of Iulius Heraclitus (*AAES* III 428).
[229] Temple 3, for example, combined a Classical plan with a clearly Nabataean décor. According to Dentzer, the temple would have been donated to Si^{c} by the king Rabbel II (Dentzer 1985-6 II:405). Kropp (2010:10) notes that there is no evidence to support this thesis.
[230] On the sanctuary of Baetocaece see below, note 412.
[231] On the acceptance of the Decapolis era at Kanatha see Sartre 1992b:143; Spijkerman 1978:90-7 (esp. 92-3).
[232] Leblanc & Vallat 1997:38-43; 54.

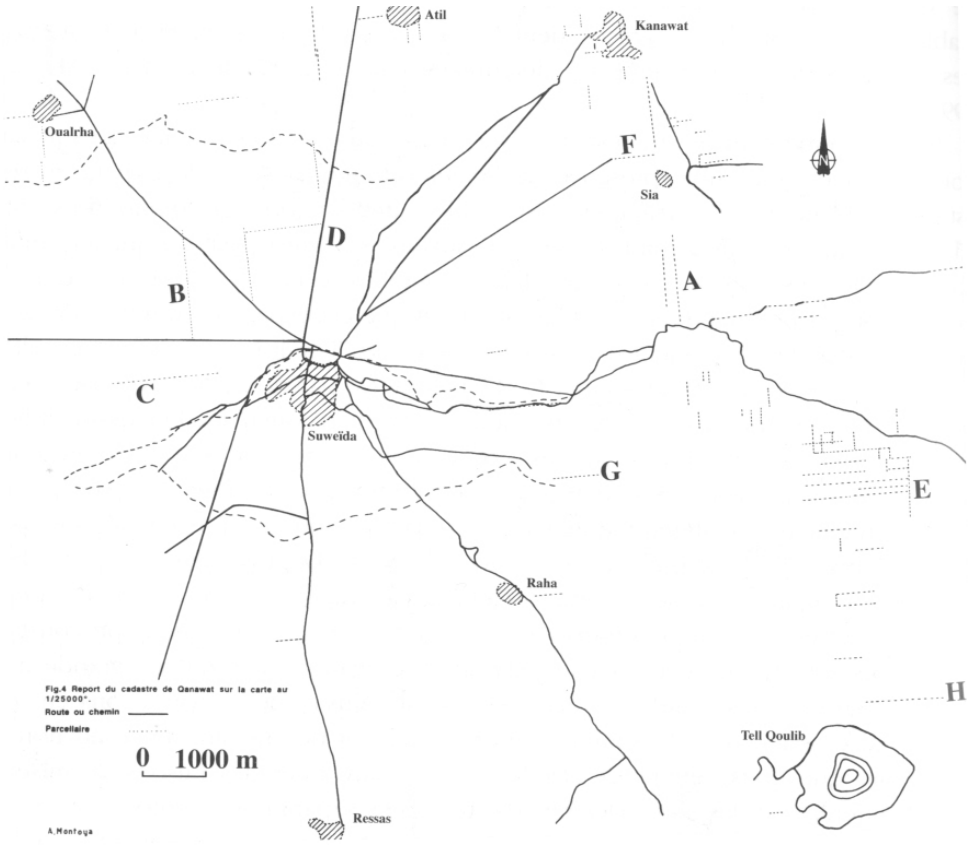

Fig.2.2. The cadastre of Kanatha (Leblanc & Vallat 1997:42)

The growth of the hilltop sanctuary seems to have also fostered the development of a large nucleated settlement that was established to the east of the cult centre and grew to comprise more than 100 houses (Fig.2.3). Almost nothing is known of its social and economic conditions, though limited excavation conducted on three dwellings has helped clarify the structure of housing and the nature of production activities.[233]

[233] Dentzer *et al.* 1985:78; Villeneuve 1997; Arnault 2010.

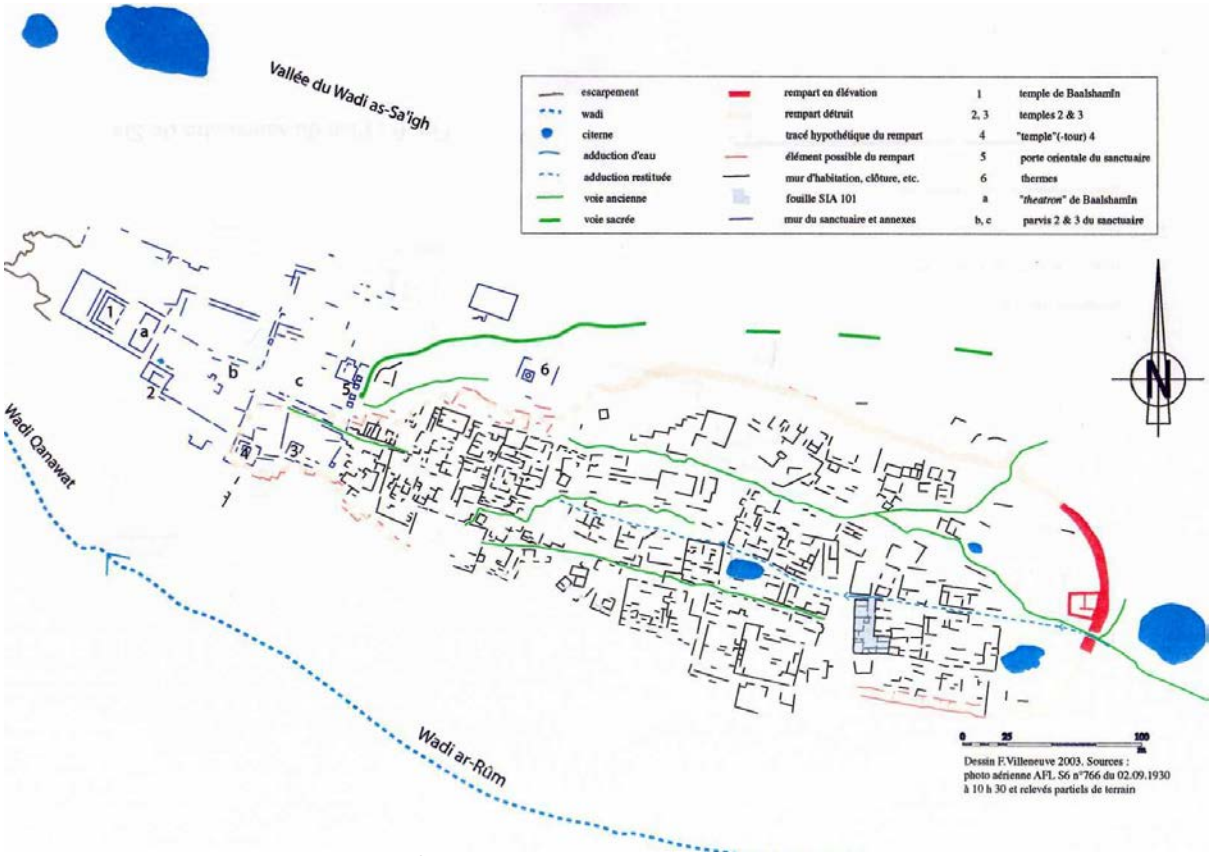

Fig.2.3. The escarpment of Si[c], with the sanctuary to the left (Arnault 2010 II: 5 fig. A6)

The village layout should be likened to the "introverted type" described for the Golan Heights and had as its focal point the sanctuary of Baalshamin on the westernmost point of the hill. The organisation of space was rather caotic, with the orientation of houses being primarily determined by the shape of the escarpement, though a central thoroughfare linking the gate of the rampart with the entrance to the sanctuary may have determined the positioning of the earliest dwellings. More recent observations have allowed to identify an organisation in recangular or square quarters ("îlots").[234] The excavation of Sia 101 has shown that the first structures, dating to the first century AD, were very modest single-room units built of irregular rough masonry. Later, with the second and third centuries, three distinct houses developed, each of which composed of two or more rooms (Figs. 2.4-5) .[235] These houses display some of the typical features of Hawrani domestic architecture, with window walls (in house 2), corbelled ceilings and arched rooms (such as in room Y of house 2).[236] The plans of houses 1 and 2 are particularly well recorded. House 1 was divided up in two rooms at ground floor level, with

[234] Summarising the results of an unpublished report, Arnault (2010 I:22-3) noted that the excavators believed the quarter of Sia 101 to have been laid out in accordance with Roman measurements (a rectangle ca. 70 m or 2 *actus* long). However, where excavation has been carried out (such as along the western wall of the quarter, corresponding to the W wall of houses 1 and 2 of Sia 101), the walls have been shown to be the result of successive phases of building rather than of a single planning phase.
[235] Villeneuve 1997:31.
[236] This information and most of what follows on Si 101 I owe to Prof. Villeneuve's kind advice on the matter.

room A probably used as a storage facility, while excavation has excluded that it could be employed as a stable.[237]

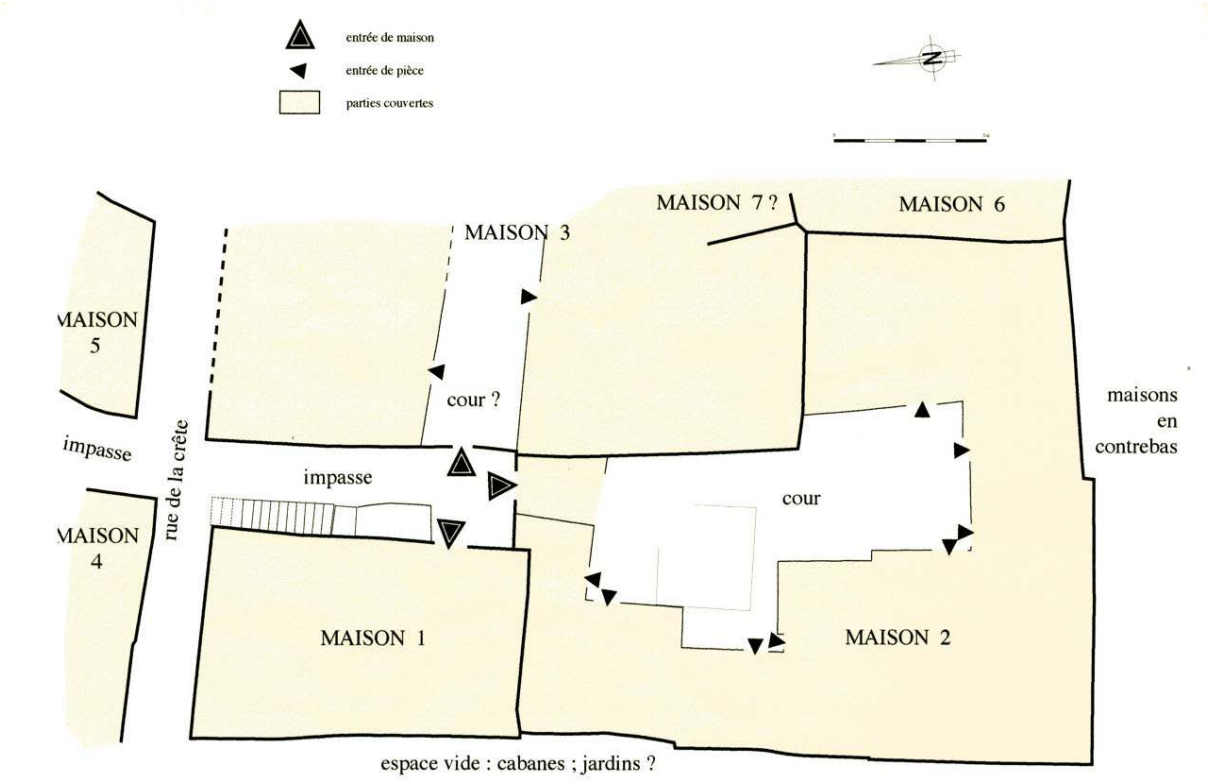

Fig.2.4. The dwelling complex known as Sia 101 (courtesy of François Villeneuve)

A mezzanine level could be found above room A, while room B was built to the entire height of the house and featured a central pillar that rose up to the ceiling.[238] It is likely that the mezzanine could be accessed via a ladder from room B. Such an arrangement is also found in the plan of rooms P, Q and T of house 2. Again here Q was the central, single-storey room flanked on either side by two rooms one of which (P) proved to be a small stable (three mangers were found here). Above either room a mezzanine level was found again possibly accessible through ladders placed in the central room. Finally, RB and RA were small two-storey rooms while Y, the biggest room of the house, consisted of a single-storey arched room, which also granted access to an underground chamber where three *pithoi* sunken into the floor were revealed. Finally, as typical of rural housing in the Levant, both house 1 and 2 had their ovens (*tannours*) located in the courtyards (respectively BH and I in Fig. 2.5).[239]

[237] Both for the absence of troughs and for its height (ca. 1,5 m)
[238] It is likely that the roof was used as a terrace, a common feature of most modern and ancient rural houses of southern Syria (Villeneuve 1985-6 I:96).
[239] The two ovens were not contemporary. *Tannour* BH was destroyed around the end of the first century, and possibly replaced by *tannour* I located in front of room E. Arnault 2010 I:56.

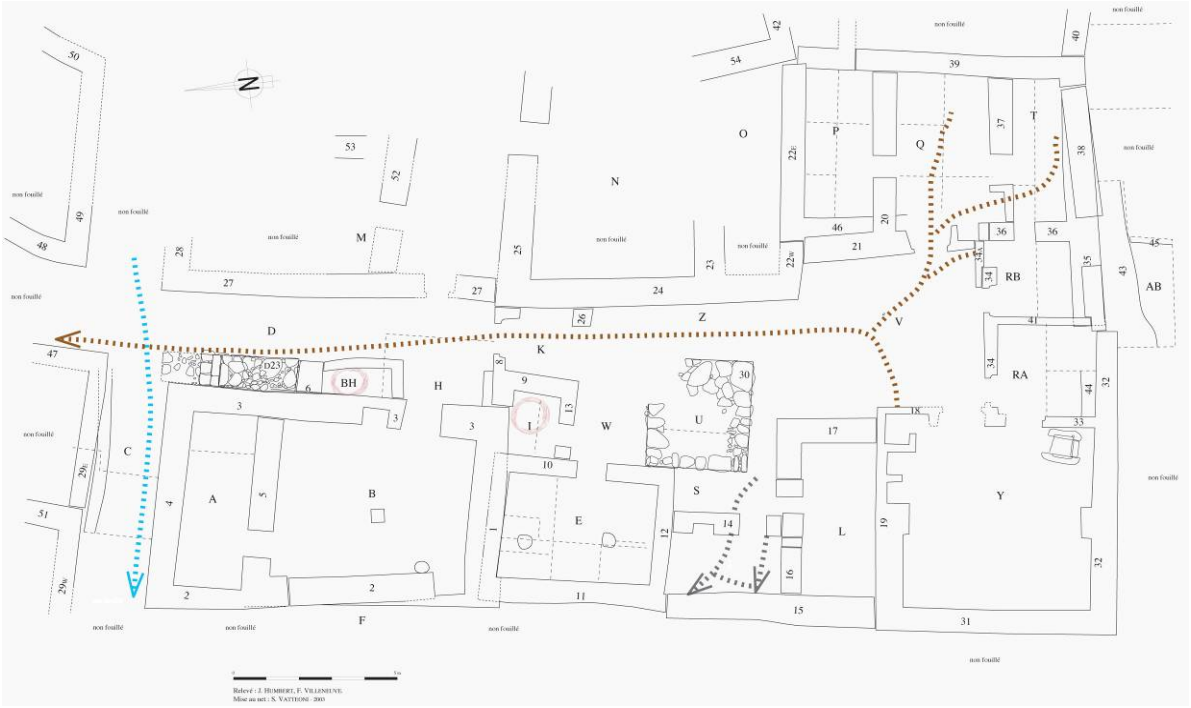

Fig.2.5. Plan of Sia 101 (courtesy of François Villeneuve)

Unlike the more imposing rural dwellings recorded elsewhere in the Hawran and in the Golan Heights, the distinction between working and dwelling quarters at Sia 101 is blurred: no proper upper storey was found and the mezzanines are accessible only with the use of ladders located in the central room at ground floor level. Moreover, the space for animals is reduced to a minimum: only three mangers were found in house 2 against the eleven of the equally small house 1 of Majdel ash-Shor (east of Salkhad).[240] Unlike the majority of private dwellings in Hawran, courtyards seem to play only a minor part at Si^{c}: house 1 has no courtyard at all, while houses 2 and 3 have only narrow spaces which could hardly be used for much other than accessing the dwellings and for cooking. In the majority of their features the houses of Si^{c} remind us of the most basic examples of what Hirschfeld classed as "simple houses" in Palestine, and which are common also in the "introverted villages" of the Golan Heights.[241] The difference between these and the majority of the rural houses of the Hawran lies – as Bopp holds – in the fact that the former did not seem to be fully agricultural houses: most of them lack a stable and millstones are seldom found.[242]

At Si^{c}, therefore, the three houses analysed suggest that the village was composed of modest dwellings with a vocation for simple agricultural activities that exclude production for the market. Saddle querns and hopper-rubber mills, the only kind of mills retrieved in Sia 101, attest to the poverty of its dwellers and to their limited flour needs, as noted by Villeneuve.[243]

[240] Villeneuve 1985-6 I:91-97.
[241] This house was excavated in the ancient village of Horvat Kanaf, a site on a steep hill ca. 5 km N-E of the sea of Galilee. Hirschfeld 1995:27-8.
[242] Bopp 2006:65.
[243] Unpublished report cited by Arnault 2010 I:53.

Archaeobotanic findings and chemical analyses conducted at Sia 101 (with additions from the area of temple 2 and the pre-Roman and Roman levels of Sia 8) suggest that, like those of *Gaulanitis* and other areas in *Auranitis*, the inhabitants of Si^{c} survived on polyculture and herding.[244] The millstones found in Sia 101 were used to grind both barley (*hordeum distichon*) and wheat (*triticum aestivum*/*durum*) as remains of both cereals were found in the two *tannours* (BH and I), making up respectively 6.6% and 7.5% of the overall findings. Particularly important were also the remains of lentils (ca. 6%) and figs, which represent typical ingredients of the Mediterranean diet. The olive is, however, only scantily attested at Si^{c} (only two fragments of olive stones and a limited sample of charred olive wood) in keeping with similar results from elsewhere in the Hawran. Crushed grape skins and pips, comprised the majority of findings (ca. 72%). These were likely the leftovers of wine production which, because of their alcoholic content were used as fuel, together with firewood in the local ovens. Finally, chemical analyses conducted on the sunken *pithoi* discovered in the underground chamber of house 2 have shown that these containers had been waterproofed and used to store dairy products, possibly milk or butter.[245]

Given the structure of settlement, which developed as an appendix of the sanctuary and within a walled area seemingly established before the village, it may be possible to regard the development of the village as connected to the needs of the religious centre rather than to the intensive exploitation of the agricultural hinterland. This would also explain the decline of the village in the late third century, which was contemporary to the abandonment of the sanctuary. On the back of the evidence from Sia 101, however, it is difficult to believe that the inhabitants of Si^{c} would have depended on trade generated by the sanctuary's role as a regional pilgrim centre: the limited number of coins and imported pottery rules out this possibility. If, as suggested above, the hinterland of Si^{c} enjoyed autonomy and was managed directly by the temple authorities, the inhabitants of Si^{c} may have been peasants working the lands of the sanctuary, a condition that raises once again the parallel with the sanctuary of Baetocaece and its dependent village.

The reasons that led to the decline of the sanctuary and its village in the late-third century remain obscure. While some sort of cult continued to be practiced into the fourth and fifth centuries (as attested by the finding of large numbers of late antique lamps in the area of the "Nabataean gate"), this never led to any significant building activity.[246]

While the village of the hill declined, other clusters of dwellings such as Kh. al-^{c}Anz (Sia 250), Kh. al-Krum (Sia 15), Kh. Khneyfs or Kh. Khassin seemingly continued to be occupied.[247] These smaller sites are spread across the agricultural hinterland of Si^{c} and comprise

[244] For the data contained in this paragraph see chiefly Willcox 2003:188 (table 2).
[245] Garnier 2003:6-7.
[246] Dentzer-Feydy *et al*. 2009:8; Arnault 2010 I:81-3.
[247] Surface pottery (mostly common wares) ranging from the Roman to Byzantine period was retrieved at Sia 250 and 15 by Gentelle, Leblanc and Vallat:Gentelle 1985-6 I; Vallat & Leblanc 2008. A similar

dwellings built of irregular or quadrated masonry which conform to the usual Hawrani architecture. It is in these smaller settlements that the rural population of the Si[c] valley lived in Late Antiquity. Unfortunately, none of these hamlets has been excavated to date, thus making it difficult to specify the character of occupation as well as the precise chronological framework of settlement.

Fig.2.6. The wineries of Si[c]. Surveyed wineries are plotted as triangles. Squares and rhombus sites were obliterated at the time of the author's survey (Basemap: ©Google Earth).

Fig.2.7. Winery Sia 21 (looking south). The photograph shows the central treading floor (with morticed stone for the anchorage of the direct-screw press) and the additional loading compartments on three sides (Photo: the author).

picture of continuity is suggested by pottery found at Kh. Khneyfs and Kh. Khassin by the author of this thesis and C. Hatoum in 2010-1.

At this stage, the Byzantine and Umayyad wineries constitute the most characteristic feature of the late antique landscape of Si^{c}. Most of these structures, whose location is illustrated by Fig.2.6, receive some mention in the co-authored volume *Hauran II* (2003), but only Sia 8 and Sia 353 were described in detail.[248] During the summer of 2010 the author of this thesis and Chadi Hatoum were able to recover information regarding the plan, components and vat capacity of presses K3-6 and Sia 21, which are thus added to Sia 8 and 353 in the present discussion.[249] The ground plans of the wineries of the jebel al-^{c}Arab radically differ from those of the Limestone Massif that we will see in Part IV, but they bear some resemblance to the "complex wineries" of ancient Palestine and Arabia.[250] In broad terms, they comprised a central paved treading floor, which sloped toward a large receiving vat dug in the rock. Moreover, the treading area included a morticed stone sunk in its centre used to anchor a direct-screw press. This type of press was the most common type in Levantine wineries during the Byzantine period and is frequently depicted in mosaic pavements such as the one of the church of Lot and Procopius at Khirbet al-Mukhayyat (dated AD 557).[251] Surrounding the treading floor, the wineries of the "complex" type – to which those of Si^{c} belong – were provided with a number of additional compartments. The precise function of these compartments remains somewhat debated, though scholars agree that they were used as either unloading areas or additional treading floors. In the wineries of the jebel al-^{c}Arab, such compartments were arranged on two levels, the lower of which was hewn in the rock in the shape of vats (Fig. 2.7). These were of much smaller size than the main receiving vat toward which the treading floor sloped. It is very likely that these vats were used to collect what the sources call the *protropon* or *prodromos* must, i.e. the "self-flowing must" that was produced by the natural pressure of a load of grapes onto itself. Such must was particularly prized in Antiquity and was used to produce choice wines.[252]

The excavation of two wineries of Si^{c} (Sia 8 and 353) allows us to establish a chronological framework for the building of these structures. Sia 8, originally a shrine possibly connected with the sanctuary of Baalshamin, was converted into a press in the late Umayyad period. Diagnostic pottery consists mainly of Jerash lamps and buff-fabric jugs with painted decoration that may be attributed to the late-Umayyad period. In the filling of vat 5, a coin dated to AD 696/7-750/1 represents a *terminus post quem* for the abandonment of the installation,

[248] Dentzer *et al.* 2003.
[249] For the technical specifications of these wineries see Zerbini 2010.
[250] The definition of the "complex" type is due to Frankel (Frankel 1999). In the surveys conducted by P. Gentelle, M. Kalos, J. -P. Vallat and J. Leblanc between the 1970s and 2000s simpler wineries were also discovered such as Sia 222 and Sia 291. Dentzer *et al.* 2003:128. Vallat & Leblanc 2008:34 Pl. 4
[251] Piccirillo 1992:208 fig. 334.
[252] Pliny, *NH* XIV 11. 85; 9. 75; Athen. , *Deipn*. I 30b; II 45e. On this see Decker 2009:128-9. Vats for the collection of *protropon* are also found in the large winery 37S of Mulabbis (Gudovitch 2009:204-7). On the uses of the additional compartments in the wineries of the jebel al-^{c}Arab see Donceel 1998:52-7; Dentzer *et al.* 2003:158-9.

which may be set in the Abbasid period.[253] In the excavation of Sia 353, a coin of Honorius (AD 402-8) was found sealed in the mortar of the south-west corner of the treading floor. This coin was in very worn condition, suggesting a long circulation and, consequently, a possible dating in the late-5th century.[254]

During the survey conducted in 2010, the author and C.Hatoum have gathered surface pottery in the area of wineries K6 and K3-5. This ceramic material has yielded few diagnostic sherds and generally reflects the whole gamut of fabrics attested in the area of Si^{c}.[255] Sherds of the local fabric A are particularly abundant, but fabric C, dated to the Hellenistic period, was also frequently encountered, and especially in the area of K3-5. The presence of Hellenistic and Roman pottery in the vicinity of the wineries does not mean the presses should also be given an early date. Most of them, in fact, appear to have been built on the site of earlier buildings, be these tombs or rural shrines: in K6, for example, two probably funerary inscriptions (one Greek the other "Nabataean") have been found in re-use in the built parts of the winery.[256] . The transformation of these structures into wineries should, consequently, still be placed in Late Antiquity, though excavation is needed to establish a more precise chronology.

In what follows, we will look at the capacity of the collecting vats of the wine presses of Si^{c} and extract, from this data, the catchment zones of individual presses. These calculations, I will argue, allow us to gain a better understanding not only of how these structures were used but also of how land was likely to have been exploited. Moreover, they provide an order of magnitude as to the capabilities of the local wine industry and its surplus margins. Quantification of wine production relies on measuring the size of the receiving vats, which were likely used as containers where the first fermentation of the must took place.[257] Since the first fermentation did not usually take more than two weeks, vats were likely to be refilled two or three times over a vintage season.[258] The tables below respectively sum up the details concerning the capacity of the wineries analysed and the estimates for production outputs. Table 2.2 also includes data drawn from *comparanda* in Palestine:

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[253] Blanc 2003:35-6.
[254] Dentzer *et al.* 2003:139.
[255] For a discussion of fabrics in Si^{c} see:Barret *et al.* 1985-6 II; Orssaud *et al.* 2003.
[256] Although the Nabataean inscription contains a lacuna in the patronymic, but the name of the dedicant is well visible and reads {^{C}}WYDW, 'Uwayd, which corresponds to the Αουεδιος of the Greek text (for attestations of this name see Wuthnow 1930:24). The patronymic in the Greek text is Motaimos/Notaimos, an otherwise unattested name.
[257] Frankel 1999; Brun 2003:63-4.
[258] Vintage in the Levant has a duration of between four and seven weeks (usually mid-August/mid-October). See Dar & Applebaum 1986:154. Measurement of bell-shaped vats requires some approximation. First, given their irregular geometry, their shape needs to be approximated; in these calculations, a cylinder determined by the height of the vat and its maximum diameter is used as the closest possible approximation. The minor overestimation of the vat size thus produced is offset by the fact that the height of the vat can only rarely be measured from the bottom, which is usually filled with debris. Second, the height of the vat is not measured from its top but from the level of the treading floor:although most containers do extend above this level (either as built compartments, as in Si^{c}, or because the treading floor is sunken deeper in the bed-rock as in Dehes), this upper portion was no doubt meant to make up for the increase in volume that occurs to during the first fermentation (which can be reckoned at ca. 25-30% of the volume of unfermented must).

Table 2.1. Capacity of wineries' rock-cut basins

Press	Press Device[1]	No. of vats (seen)	No. of vats (measured)	Total volume (m^3)
K3	DS	4	3	2.55
K4	DS	5	3	8.78
K6	DS	4	2	4.67
Sia 21	DS	7	5	6.53
Sia 353	DS	6	6	14.6
Sia 8	DS	5	5	8.72

[1)]DS: direct screw press

Table 2.2. Estimates of production for wineries of Si[c] and *comparanda*[1]

Press	Vat/Stack (V)	Wine (1 filling)	Wine (2 fillings)	Wine (3 fillings)
K3	2.55	2,500	5,000	7,500
K4	8.78	8,800	17,600	26,400
K6	4.67	4,700	9,400	14,100
Sia 21	6.53	6,500	13,000	19,500
Sia 353	14.6	14,600	29,200	43,800
Sia 8	8.72	8,700	17,400	26,100
Dor[2]		8,400		
W.Galilee 3[3]	10.6	10,600		
W. Galilee 4	1.28	1,280		
Mulabbis 37S[4]	18.9	18,900		
Mulabbis 37W.1	4.7	4,700		

[1)]All estimates of production are in kilograms. Volumes are in cubic metres.
[2)]Kingsley 1999 I: 74 [3)] Frankel 2009: 20 [4)] Gudovitch 2009:203-7

From the capacity of production of wineries we can also obtain their areas of catchment (*i.e.* the size that vineyards had to attain in order to work the wineries to full capacity) by turning quantities of grape must back into quantities of grapes and adopting an appropriate grape yield/ha ratio. This can be done as follows. One hundred kilograms of trodden grapes produce ca. 55-65 litres of first must (or *mosto fiore*). Grape pomace (the residue of treading) was then pressed at least twice, each time producing another 5-8 litres of must. The ancient agronomic literature diverges on whether this must was added to the first must or not. If we accept the *Geoponika* to reflect a more "eastern" tradition of winemaking, we would be led to believe that must derived from pressing was kept aside.[259] In this case, the vats of the wineries of Si[c] would have contained only first must, thus suggesting a must/grape ratio of 0.55-0.65. A similar ratio was still obtained in the last years of the British Mandate in Palestine.[260] Figures for yields of grapes/unit of surface rely more heavily on comparative literature. The earliest reliable dataset for this region was compiled by the *Mohafazah* of Suweyda for the Syrian

[259] *Geoponika*, 6. 11. See also Decker 2009:122-9 for discussion and 263-71 for the value of the *Geoponika* in illustrating agricultural practices in the Eastern provinces.
[260] According to Goor (1966:63), in 1946 Mandate Palestine produced a total of 9,000 tons of grapes for wine production. From these, 6 million litres of must were produced, equivalent to a ratio of 0. 67 l must/kg of grapes. Since the specific gravity of must is close to 1 (1. 05-1. 07 depending on the amount of solid residue left in it), we could say that 1 kg of grapes produced around 650 g of first must, plus an additional 20%-25% derived from the pressing of the pomace.

Ministry of Statistics and covers the years between 1953-8; for this period, the average yield was 3600 kg/ha.[261] Table 2.3 and Fig.2.8 respectively collect and visualise the size that vineyards could potentially attain if the wineries built on them were worked to full capacity.

Table 2.3. Si^{c} Valley.Estimated size (ha) of vineyards[1]

Press	Vineyard (1 filling)	Vineyard size (2 fillings)	Vineyard size (3 fillings)
K3	1.16	2.32	4.64
K4	4.08	8.16	12.24
K6	2.18	4.36	6.54
Sia 21	3.02	6.04	9.06
Sia 353	6.77	13.55	20.31
Sia 8	4.04	8.08	12.12

1) The grape/must ratio of 0.6 is used throughout

These figures suggest that the agricultural landscape of late antique Si^{c} was dominated by medium to large vineyards, which exceeded the limits of the parcels in which the wineries were built. From this observation, two possible arguments may be drawn: on the one hand it could be argued that, by the time the complex wineries of Si^{c} were built, the parcellation of the Si^{c} valley had no longer any straightforward relationship with the patterns of landholding. The case of Sia 353 best illustrates this point: set on a parcel of less than 3 ha, this large winery would have required at least twice as much land to be intensively cultivated with grape vines in order to work to full capacity. Arguably, the owners of this press would have possessed other holdings, be these continuous to the parcel on which Sia 353 was built or located further away from it.[262] On the other hand, the very plan of the complex wineries of Si^{c} – with their peripheral compartments - may suggest that they were used to process the crops of many different middling landowners whose small holdings would still be to some extent reflected in the parcellation of the territory.

[261] Data published in the official reports *Statistical Abstract of Syria* (1954-8).
[262] Division of property due to inheritance may indeed have caused the fractioning of holdings. Yet, it seems unlikely that the vineyards making use of this press could be more than a couple of kilometres away from it.

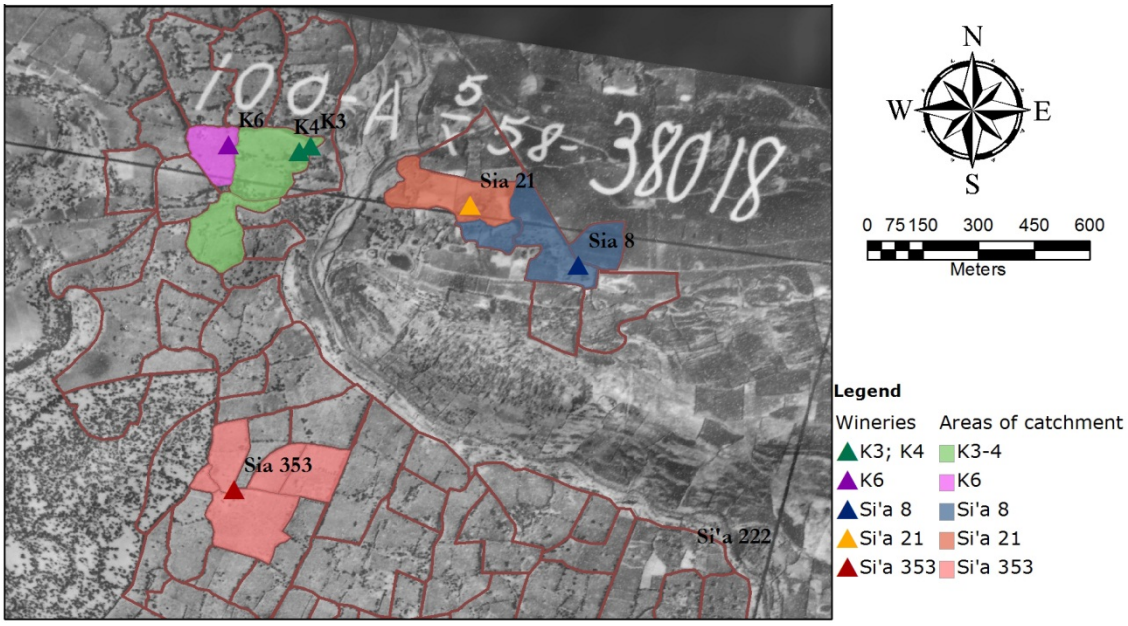

Fig.2.8.Catchment zones of wineries of Si^{c} (with 1 filling of the wine vats) plotted on the field pattern of the valley (Basemap: Russian aerial photograph,1958, courtesy of UMR 7041 ArScAn 21, Univ.Paris X-Nanterre)

In broader terms, the "complex wineries" of Si^{c} attest to the intensification of agricultural production in this part of the jebel and posit considerable investment in wine production between the Byzantine and early-Arab period. The demand for this product would have been in part local: the cities of Kanatha and Dionysias-Soada, only a few kilometres away, continued to provide a solid urban market until the end of the Byzantine period. Yet, as we have noted above (2.2.1), this wine is likely to correspond to the famed wine of the "mountain of Busra", which was renowned among the Ghassanids who lived in *Batanaea* and *Gaulanitis* and was purchased by Hijazi merchants in Bostra.

To sum up, Si^{c} provides us with a history of development in which a hilltop sanctuary functioned as a centre of regional settlement aggregation and a major regional cult site where sedentary and nomadic ecologies overlapped. The importance of the cult of Baalshamin may explain the development of a large, though relatively poor village next to the sanctuary on the hill. It is possible that the inhabitants of this settlement may have worked temple lands as some evidence points to the independence of the sanctuary from nearby Qanawat. The symbiosis between the sanctuary and the village is testified by the contemporary decline of both in the late-third century. At this point, we witness a gradual intensification in the level of agricultural exploitation, with the development to large scale viticulture for trade from the Byzantine to the early-Arab period. In this period, human occupation seems to have been more dispersed, with hamlets and farms being more important than large nucleated villages.

We can now draw some general conclusions with regard to the patterns of settlement development in the Golan Heights and jebel al-^{c}Arab. Surveys and excavations have demonstrated that the sedentarisation of these regions followed similar trajectories. Begun as

early as the Chalcolithic, the occupation of these regions was always determined by the interaction between agriculturists and nomads. The evidence suggests that there was a connection between the abandonment of a semi-nomadic life style, which was best suited to the marginal conditions of these environments, and the establishment of conditions of economic security that allowed for trade and long-term investment in agricultural development.

When such conditions existed, sedentary settlement made clear progress in the marginal. In *Gaulanitis* and *Auranitis* this was achieved through progressive land clearance and the establishment of water management infrastructure. Patterns of settlement development exclude a major institutional impact: the conquest of the marginal seems to have been a primarily local phenomenon, driven by the necessity to acquire more land in the face of growing demand for agricultural products. In an economic strategy aimed at risk-management, the agricultural regime was one in which polyculture and herding were combined with micro-regional specialisation. This latter consisted of cash-crop production or intensive animal rearing, the surplus of which was destined to local and regional markets: while the oil presses of central *Gaulanitis* likely produced for the centres of *Batanaea*, the wine of the jebel al-ᶜArab, through the intermediation of the urban market of Bostra, might have reached the markets of Hijaz. Market production proved instrumental for the gradual intensification of settlement and the improvement of living standards that we witness in Late Antiquity.

Both in *Gaulanitis* and *Auranitis*, the village emerges as the main unit of human aggregation while the middling peasant family was the prevailing economic actor: courtyard houses provided with presses and mangers were the core of local agricultural life. Moreover, village institutions suggest a certain degree of self-governance.

The conditions of settlement analysed for *Gaulanitis* and *Auranitis* find close parallels in the main case study of this thesis, the Limestone Massif of northern Syria, to which we will now turn in Parts III and IV. Like for the Golan and the jebel al-ᶜArab, it will be shown that the sedentarisation of the Limestone Massif was due to mostly endogenous factors. Moreover, Part II has suggested (and Parts III and IV will confirm) that marginal zones cannot be portrayed in terms of Finleyian primitivist economics: instead of an essentially stable and undeveloped economy, the evidence from these regions shows that considerable economic and demographic growth could be achieved by a milieu of middling agriculturists.

Part III. The Limestone Massif from the Hellenistic period to the third century AD

Part II has also allowed us to survey what are regarded as the main causes for settlement intensification in the Golan Heights and the jebel al-ᶜArab, but also to explore diverse settlement patterns and highlight the similarities and differences of economic regimes.

The issues raised thus far will be reprised in much greater detail with regard to the Limestone Massif of northern Syria, to which Parts III and IV are dedicated. The contents of Part III have already been described in section 1.2 above and need only be briefly enunciated here. After a section dedicated to the geomorphology, climate and human geography of the region (3.1), we will move on to survey the modern literature on the Limestone Massif (3.2). We will then explore the causes and structures of settlement in the region up to the end of the third century (3.3). The evidence on which this study draws upon is manly archaeological and epigraphic. In particular, the material evidence proves essential in determining the patterns of house occupation, household and village economy. Pottery findings, albeit only partially published, help us to define a chronological framework for settlement and to assess the extent to which the Limestone Massif was connected with the surrounding regions. The large and varied epigraphic record allows us to reconstruct several aspects of the social life of the region, including burial customs, ethnic origins, social stratification and village organisation. Moreover, the ca. 400 dated inscriptions complement the chronological data provided by pottery and, in the absence of large-scale surveys, represent (*pace* Tate, see 3.2 below) the only chronological data concerning the distribution of settlement in the Limestone Massif between the second and tenth centuries AD.

3.1. A fractured ecology

The hinterland of ancient Antioch is dominated by a group of eight mountainous chains (see Map 1 at the end of the thesis) which stretch for 150 km in length and 30 km in width to the east of the Orontes valley. In Antiquity, this region was divided between the territories of Antioch and Apamea, with a small sector in the north-east belonging to the territory of Cyrrhus.[263] The

[263] The southern frontier between the territories of Antioch and Apamea cut across the northern jebel Zawiyé, just south of the villages of Ruweiha, Schnaan and Kafr Haya. A small portion of the jebel Semᶜan (to the east and north-east of the village of Kaukaba) belonged to the territory of Cyrrhus. The evidence is mostly constituted by the different era adopted in the inscriptions. As Seyrig noted (*apud*

mountain is surrounded by plains: to the north it is separated from the southern slopes of the Taurus by the Amuq plain and the valley of the Afrin; to the east the hills of the jebel Sem^{c}an descend gradually into the plains of Aleppo (ancient Beroia) and Qinnasrin (ancient Chalcis); to the south the jebel Zawiyé gives way to the large plain of Homs in which lay ancient Apamea; finally, to the west, the Orontes flows in the Ghab valley, a lowland that contrasts sharply with the peaks of the jebel Zawiyé. The altitude averages between 400 m and 500 m asl, with the highest peaks of the region being jebel Sheikh Barakat (the ancient *Mons Koryphaios*), which stands 876 m asl in the jebel Halaqa and the Nabi Ayyub in the jebel Zawiyé, which rises to 940 m; both are long-extinct volcanoes, of which a number remains across the region. Despite a series of micro-regional variations, this limestone landscape exhibits a certain homogeneity and the whole region is referred to as the Limestone Massif of northern Syria.[264]

Geologically, the massif results from the stratification of four different types of limestone, which originated at subsequent phases during the Tertiary period. Later, during the Quaternary, volcanic activity led to the accumulation of basalt strata, which are more plentiful in the jebel Zawiyé and in the northern section of the jebel Sem^{c}an. The varying pattern of superimposition of limestone and basalt strata is largely responsible for the fractured ecology of the massif, which in turn plays a key role in the determination of settlement patterns. A recent study of the repartition of settlement in the massif has shown that areas of aggregation were chosen on the basis of three vital parameters: first, the availability of soil suitable for agriculture; second, the presence of good water resources; and third, a favourable topography that would afford security to the settlement without secluding it from the local network of transport and trade.[265]

The origin and repartition of fertile soil in the massif depends largely on phenomena of erosion and karstification whose effects have varied depending on the type of substratum.[266] The permeability of the limestone creates a dense net of underground caverns (karst aquifers), which often collapse to create cavities and sinkholes.[267] It is in these cavities, known as *dolines*, that much of the topsoil found on the limestone ridges accumulates, thus producing that landscape of "karstic gardens" which is typical of the Mediterranean countryside.[268] Likewise, as in other Mediterranean karst landscapes, the massif's topsoil – when present at all – is often composed of layers of so-called *terra rossa*, a mostly clayish terrain whose colour spans several tones of red depending on relative levels of iron oxide and the type and quantity of residual minerals in it.

Tchalenko 1953-8 III:12-4), the Caesarian era of 49/8 BC (known as "era of Antioch") was only employed in the territory of this city, whereas the neighbouring cities of Cyrrhus, Chalcis and Apamea always maintained the Seleucid era (312/1 BC). See also Balty & Balty 1981:72-3.

[264] Tchalenko 1953-8 I:56; Ponikarov & Mikhailov 1964. For the following paragraphs, I rely particularly on the latter and on the recent studies of terrain reflectance conducted by M. Abdulkarim, A. and P. Bildgen and J. -P. Gilg on the basis of Landsat TM images: Abdulkarim *et al.* 2004a; 2004b; 2004c. On the geology of the Rug *polje* and its periphery see the recent work by S. Akahane (2003:11-27).

[265] Abdulkarim *et al.* 2004c:29.

[266] On karstification in Syria see, generally, Burdon & Safadi 1964.

[267] Horden & Purcell 2000:309.

[268] Horden & Purcell 2000:220.

The abundance of kaolinite clays in the northern jebel Sem^{c}an and central Zawiyé places these two regions among the most fertile parts of the massif, making them particularly suitable for grain crops as well as arboriculture. However, even within these regions, a high degree of micro-local variability is in order: the deepest clay soils – which are best suited for agriculture – accumulate in the tectonic faults, wadi beds and inner depressions, where erosion is less acute. Thus, some of the best agricultural land in the jebel Zawiyé is found along its western slopes, which coincide with a major north-northeast/south-southwest fault.[269]

Where deep *terra rossa* soil is not available, as in the majority of the massif, agriculture can still be practiced so long as the substratum is abundantly karstified (thus affording good underground water resources). Oleo- and viticulture, for example, thrive in the southern jebel Sem^{c}an, northern Zawiyé and central Barisha, where the shallow superstratum is a mix of chalky soil and kaolinite clay and the karst aquifers are relatively close to the surface.[270]

But fertile soils, by themselves, do not provide all the necessary conditions for agriculture and settlement: the water resources are just as vital. Until recently, it was widely believed that the population of the massif had relied entirely on rainwater for its survival, digging reservoirs (*birak*) to collect the water that fell during the winter season. However, recent surveys in the jebel Sem^{c}an and Zawiyé have shown that, much more than rainwater, the villages of the massif relied on the exploitation of underground karst aquifers.[271]

Although the extent and structure of karstification, very much in the same way as the repartition of fertile soil, is subject to micro-local variability, two prevailing patterns may be identified: the "horizontal" karstification, which produces oblong and shallow underground pockets very close to the surface but which contain little water; and the "vertical" karstification which produces deep karst aquifers with large water capacities.[272] The former is found, primarily, on top of the limestone ridges, where the majority of the villages are located. Here, the superimposition of flat limestone layers produces small solution pools on the surface, where – as we have seen – *terra rossa* accumulates. Underneath such pools, the karstification process leads to the creation of oblong aquifers: these are generally quite shallow but extend over vast surfaces. For this reason, tens of wells, arranged on the same level, characterise this particular landscape. In the village of Akiba (j. Sem^{c}an), for example, some 25 wells were dug in parallel rows at an average depth of 3.5 m. The water level varied between 20 and 70 cm, signalling the high degree of micro-local variability in the depth of the aquifers.[273] The water drawn from these wells was used primarily for human and animal consumption, but there is also evidence that it could be used to irrigate the *dolines* next to the wells. In the village of Kh. Rhaldieh (j. Sem^{c}an), for example, the openings of the wells were positioned on slightly higher ground in

[269] Abdulkarim *et al.* 2004c:32.
[270] Soil no. 2 in the numeration of Abdulkarim *et al.* 2004c:31.
[271] Abdulkarim *et al.* 2004b; Abdulkarim & Charpentier 2009.
[272] Abdulkarim *et al.* 2004b:20; Abdulkarim *et al.* 2004c:30; Pl. 4 fig. 1-2.
[273] Abdulkarim *et al.* 2004b:20.

respect to the cultivated *dolines* and were provided with grooved channels which assured the flowing of water in the direction of the fields.[274]

The importance of these low-capacity wells for the survival of the population and of an agricultural regime can scarcely be underestimated. However, the shallowness of the aquifers that fed them made them highly reliant on seasonal rainfall.

For this reason, the inhabitants of the massif also exploited the much deeper aquifers produced by vertical karstification. Along the slopes of the hills, the limestone layers present a more fractured superimposition; this leaves fissures through which reactive water flows down following the steepest gradient and generating deep caves which lie beneath the bottom of the wadi beds and along the foothills. In order to access such high-capacity aquifers, wells up to 40 m deep were dug: one such well, found at the bottom of the wadi beneath the village of Burj Heidar (j.Sem^{c}an), has continued to feed the locals and their crops until recent years.[275] The considerable effort required to dig the deep-karst wells may have meant that neighbouring villages cooperated for their realisation. Consequently, communal ownership of high-capacity wells would explain the position of *in situ* boundary markers of the Tetrarchic period found in the jebel Sem^{c}an: these stones, which marked off the limits of the territories of individual villages, have been sometimes found in pairs on hill slopes at either side of a wadi, the latter remaining excluded from either territory (see below, section 4.1). High-capacity wells were also used to feed open-air cisterns. The water supply of the bath house of Brad, for example, was guaranteed by a large reservoir which, in turn, was fed by a ring of deep wells (6-7 m on average) clustered around it.[276]

While the extensive use of karst aquifers must have played a vital role in the expansion of settlement in the massif, it is not clear when the technology to exploit this resource became available. At the time of the first settlements in the region, during the Neolithic, human occupation was clustered in the vicinity of water springs. These springs are natural karst outlets generated by the collision of underground water with a less permeable geological stratum lying beneath the limestone. Such outlets are usually found at the feet of the steepest hills, where the limestone strata slope almost vertically into the lower crust. The uneven repartition of water springs appears to have been a vital factor in the determination of Neolithic settlement. Nowhere is this clearer than in the different occupation of the western and eastern margins of the Rug *polje*.[277] This triangle-shaped depression stretches over ca. 160 km^2 and is surrounded by the jebel Wastani to the west, the jebel Zawiyé to the east and the jebel Barisha to the north. The aquifers of the jebel Wastani are characterised by a steep gradient, which slopes to the west

[274] Abdulkarim *et al.* 2004b:21.
[275] Abdulkarim *et al.* 2004b:22.
[276] Abdulkarim *et al.* 2004b:21; on the bath house see also Charpentier 1995.
[277] A *polje* is a flat-floored, elongated karst depression of considerable size, which originates within calcareous landscapes as a result of strong tectonic activity (pull-apart) coupled with severe weathering of the limestone. Witherick *et al.* 2001:206.

leading them to discharge mostly onto the Orontes valley.[278] Thus, springs are rare by the eastern slopes of the jebel Wastani (i.e. the western edge of the Rug) and Neolithic and Bronze Age tells are, consequently, sporadic on the west side of the Rug valley. The opposite is true for the western flanks of the jebel Zawiyé:[279] here, the frequency of springs and wells (owing to the aquifers' proximity to the surface) has sustained a dense settlement from the Neolithic to the early Islamic period and beyond.[280] One such case is represented by Tell el-Kerkh, a group of three mounds located 3 km north of modern Muhambel, where surveys have uncovered evidence of occupation beginning in the Pre-Pottery Neolithic B (late 8th-7th millennium) and continuing – seemingly uninterrupted – into the Islamic period.[281]

Having now surveyed both the conditions of the soil and the water resources of the massif, we may draw some conclusions as to the particular patterns of settlement in the region. The deep *terra rossa* soils and abundant water supply afforded by the tectonic faults (the Qatma-Dana fault, the eastern Rug fault and the three Zawiyé faults) and the large pull-apart valleys (plain of Dana, Rug valley etc.) made them most capable of producing an agricultural output big enough to sustain dense settlement. The hilltops lining the Qatma-Dana fault are crowned by countless villages which benefited from the fertile agricultural land and water resources below them while maintaining a commanding position on high ground. Amongst these villages we find some of the longest-surviving communities, such as Deir Semᶜan and Daret ᶜAzzeh. Similarly, the area between Riha and al-Bara in the jebel Zawiyé represents one of the most fertile and densely settled of the massif. Here, the villages are all arranged along yet another tectonic fault, whose deep karst aquifers were also used to supply bath houses (such as in Kafr Lata).[282] The pull-apart plains, on the other hand, received the first settlers of the massif. While Neolithic tells have only been found (so far) in the Rug valley, settlement was certainly established in the plain of Dana since at least the Bronze Age (see below). During the Roman and late antique period, the increasing importance of oleo- and viticulture for the production of a marketable surplus meant that other, previously loosely settled zones were densely populated. These were the lands of the eastern jebel Barisha, south-eastern jebel Semᶜan and northern jebel Zawiyé, whose chalky soils proved very suitable to arboriculture. In order to maximise productivity, the local inhabitants were able to modify this environment, by digging karst wells and oil and wine presses in the all too frequent limestone outcrops.

The ability to exploit the region's water resources in every possible way (springs, karst wells, open-air cisterns) did not, however, protect the peasants from the unpredictable variations of the climate. The region receives ca. 50% of annual precipitations in the period from

[278] Besançon & Geyer 1995:314.
[279] Besançon & Geyer 1995; Geyer 1999:20-3.
[280] Akahane 2003:24.
[281] Tsuneki 2003:43-6.
[282] Abdulkarim *et al.* 2004c:34.

December to February, but it is the spring rains, which muster ca. 24-29% of the overall rainfall, that are of the greatest importance for the success of local agriculture.[283]

The 600-mm and 400 mm-isohyets encompass the whole of the massif to the west and east, but the degree of annual and micro-local variability.[284] A case in point is represented by the inter-annual variability recorded by the Idlib pluviometric station (jebel Zawiyé) for a dataset that spans over 43 years.[285] Not only does the annual rainfall plummet to below 250 mm in deficit years; worse still, the succession of arid and humid years forms no discernible pattern: between 1950 and 1963, for example, three humid years were followed by an arid one, then an average year and finally one of severe drought. A fairly humid year followed, after which a succession of three arid years and two average ones was recorded.[286] High rainfall variability affects particularly the intermediary seasons, which are also the most important for agriculture: for example, the month of October 1974 registered no rain days as opposed to the twenty-six of what October 1968.[287] To interannual variability we must also add micro-local variability in precipitations. Evidence of this is gathered in Table 3.1, which sums up annual rainfall data over the period 1952-8 for four sites situated at the periphery of the Limestone Massif.

Table 3.1. Annual rainfall at major centres of the *mohafazah* of Aleppo (mm)

	Idlib	*Afrin*	*Harim*	*Jisr ash-Shughur*
1952	544	573	604	820
1953	615	528	642	904
1954	311	434	441	476
1955	592	490	558	792
1956	351	343	473	500
1957	403	457	558	562
1958	349	315	382	527

Source: *La Syrie économique* 1953-6 (annex 62); 1957-9 (annex 47).

The negative effects that such rainfall variability had on agriculture can hardly be underestimated. As in other peri-Mediterranean regions, the peasants of the Limestone Massif found themselves in need to balance the unpredictability of the climate with an agricultural regime that, whilst based on mixed cropping, relied heavily on cash crops (primarily the olive

[283] Traboulsi 1993:74.
[284] Besançon & Geyer 1995:312.
[285] Traboulsi 1993:76-9.
[286] Traboulsi 1993:79 (fig. 7)
[287] Traboulsi 1993:80.

and the vine) and on their ability to both survive drought and provide large margins for export in bumper years.

3.2 A brief historiographical sketch

From the XVII century to Georges Tate

Before the first archaeologists reached the region at the end of the nineteenth century, only the viscomte De Vogüé and, before him, a handful of western travellers had visited the Limestone Massif. The first traveller whom we know to have certainly visited part of the massif was Henry Maundrell who, between 26 and 27 February 1697, crossed the plain of Chalcis to reach the villages of Khazzano and Kaftin by the western slopes of the jebel Zawiyé and later visited the Rug and a small portion of the jebel Wastani on his way to Jisr ash-Shughur.[288] Unfortunately, Maundrell only offered very scanty details of this part of his journey, which took him from Aleppo to Jerusalem.

Much more detailed are the accounts of Richard Pococke and Alexander Drummond, who visited the region respectively in 1738 and 1746-8. The former set out from Damascus on 15 July 1738 to reach Aleppo thirteen days later. Having passed Hama, Pococke reached Ma^{c}aret en-No^{c}man whence he ventured into the jebel Zawiyé, visiting Riha, Kafr Lata and al-Bara.[289] In September of the same year, Pococke left Aleppo to be the first western traveller to visit and describe the complex of Qal^{c}at Sem^{c}an in any detail.[290] He was also the first to attempt to record some of the inscriptions he saw on his journeys, noting down some of the funerary inscriptions seen at Qatura (amongst which the famous Latin/Greek bilingual later appeared as *IGLS* II 455) as well as some of the many texts of Sheikh Barakat.[291]

Drummond, however, produced better drawings and was more thorough in copying down the inscriptions he saw in the course of his three journeys across the massif. The British consul at Aleppo was the first in 1746 to travel along sections of the route that had in Antiquity linked Antioch with Chalcis.[292] In 1747 the consul returned to the massif, first visiting the northern section of the jebel Sem^{c}an – most notably Qal^{c}at Sem^{c}an and Qatura.[293] Finally, in 1748, Drummond ventured into the jebel Zawiyé reaching Riha, Frikya and finally al-Bara

[288] Maundrell *apud* Pinkerton 1808-1814 XI:306-7.
[289] Pococke 1745:137-45.
[290] Pococke 1745:170.
[291] The text of Pococke's inscriptions is given in Mills's and Pococke's *Inscriptionum antiquarum graecarum et latinarum* (1752).
[292] Drummond 1754:183.
[293] Drummond 1754:195-198.

whose ruins amounted, for the British consul, to those of a city "as large as Aleppo".[294]Both Pococke's and Drummond's travels were published shortly after they had been undertaken (respectively in 1745 and 1754). However, despite the growing number of western travellers in the Levant, the Limestone Massif remained somewhat neglected over the following sixty years. The reason for this apparent lack of interest must be found in the highly volatile condition of the region, which was periodically raided by nomads. According to J.S. Buckingham – who again ventured along the route Antioch-Aleppo in 1816 – this tract of land had, until some four years earlier, been "one of the most dangerous in all Syria" owing to the presence of Kurdish and Turkish hordes who "levied contributions, or plundered all who went that way".[295] Meanwhile, in 1812 J.L. Burckhardt had followed in the footsteps of Pococke and Drummond and visited the central section of the jebel Zawiyé and particularly Idlib, Riha, Kafr Lata and al-Bara. Like his predecessors, Burckhardt was particularly attracted by the funerary architecture of Kafr Lata and al-Bara, the latter hosting some of the best preserved pyramidal tombs of the massif.[296] In June 1816, shortly after Buckingham's journey, W.J. Bankes and his companion G.Finati seem to have followed the same itinerary – at least as far as the jebel Sem^{c}an – to reach Qal^{c}at Sem^{c}an from Antioch. This journey, on which we are ill informed, was to be the last visit of a western traveller for almost fifty years.[297]

Despite the great amount of information provided especially by Pococke, Drummond and Burckhardt, no comprehensive study of the region had been attempted. Thus, as De Vogüé himself acknowledged, until the publication of his *Syrie Centrale* (1865-77), "il n'a rien été écrit sur une des contrées les plus riches qui existent en monuments antiques de toute nature".[298] De Vogüé's work and its epigraphic counterpart, Waddington's *Inscriptions Grecques et Latines de Syrie* (1870), represented a first attempt at doing away with the narrative of travel writing to produce, instead, a scientific study of the architecture and epigraphy of the region.

Despite devoting much of his attention to the churches and tombs of the massif, De Vogüé did not neglect the private architecture. Alongside his detailed descriptions and drawings of some of the largest houses of the massif, he was the first author to describe the plan and likely functioning of a type of structure that is ubiquitous across the calcareous ridges of northern Syria: the oil presses, of which he selected two examples from al-Bara and Refadeh, were to play a major role in Tchalenko's interpretation of the economy of the massif.[299]

De Vogüé's was the last work on northern Syria not to make use of photography, which would become an indispensible tool for later surveys. Photographs were taken, for the first time,

[294] Drummond 1754:234.
[295] Buckingham 1825:563-4
[296] Burckhardt 1822:131. See also Drummond 1754:229 (Fig. 14).
[297] Finati, whose *The narrative of the life and adventures of Giovanni Finati* was edited by Bankes, provides only very scanty details on the journey across the massif: see Bankes 1830 II:182-4. On Bankes's archive found at Kingston Lacy, see Lewis *et al.* 1996.
[298] De Vogüé 1865-1877 I:2. De Vogüé had visited the massif in 1861-2.
[299] De Vogüé 1865-1877 I:84-5 and Pl. 35(al-Bara) and 127-8 and Pl. 113(Refadeh).

by the Jesuit P.Soulerin who accompanied M.Jullien, himself a Jesuit, in a long survey – conducted in 1888 – of the massif.[300] While their study, specifically focused on recording Christian religious architecture, signalled a return to the fashions of travel writing, Jullien and Soulerin had also the merit of venturing where others had not: moving west into the jebel Barisha and north-east of Qal^{c}at Sem^{c}an, they visited the previously unrecorded sites of Baqirha and Barisha, Kafr Nabo and Burj Haidar.[301]

The work of the two Jesuits was unknown to the scholars who participated in the two American campaigns of excavation and survey led by H.C. Butler in 1899-1900 and 1904-5.[302] Once again, these missions combined studies of the architecture with epigraphic surveys, though, owing to the greater resources on which they could count, the American expeditions attained a much fuller and wide-ranging coverage of the material. The combined efforts of W.K. Prentice and E.Littmann, the former a Classical the latter a Semitic epigraphist, made it possible to present the full spectrum of the rich epigraphy of the massif. Butler's study of the architecture was, in turn, far more scientific than De Vogüé's: the artistic drawings of the latter were replaced by plans that, in most cases, were based on the meticulous recording of measurements. The study of private and public architecture and décor was also greatly advanced, to the point that these studies remain an essential starting point for the study of Syrian rural architecture. In terms of overall historical interpretation, however, the publications of the American expeditions did not represent a serious advance. As for *Syrie Centrale*, monuments were studied in isolation and little attention was paid to the chronological development of the sites. Butler also mistakenly interpreted some houses, on account of their porticoes and frequent mangers, as bazaars and inns while he followed De Vogüé in interpreting the small building south of the bath of Sergilla as a "café".[303]

Between 1928-31 J.Mattern, another Jesuit, accompanied the epigraphist R.Mouterde in the surveys which were to lead to the publication of volumes II and IV of the *Inscriptions grecques et latines de Syrie* (*IGLS*). Mattern's own study of the architecture of the villages of the massif, published as a long article in 1933, was the first to make use of aerial photography in an attempt to understand the topography of individual villages.[304] In doing so, Mattern's study represented the foundation of what was to be the first serious attempt at understanding the historical evolution of the region as a whole: Tchalenko's *Villages antiques de la Syrie du Nord* (3 vols., 1953-8).

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[300] This survey was first published piecemeal in *Les Missions Catholiques* of 1892:Jullien 1892:382-4; 395-7; 419-21; 432-4; 439-42; 457-60; 468-70; 482-4; 492-3; 505-6; 515-7; 537-40; 562-5; 577; 588-9; 596-7; 610-2; 621-3. Reprinted in Jullien 1893. On this survey, see now Nordiguian *et al.* 2004.

[301] Jullien 1892:505 (Kafr Nabo and Burj Haidar).

[302] As noted by Mattern (1933:11). The results of the American expeditions were published in two series: Publications of an American Archaeological Expedition to Syria (*AAES*, 3 vols. 1903-4) and Publications of the Princeton Archaeological Expdition to Syria (*PPUAES* , 4 vols. , 1909-49).

[303] For bazaars and inns see, for example *PPUAES* II B:189-90 (Dar Qita). *PPUAES* II B:123-4; De Vogüé 1865-1877 I:95 (Sergilla).

[304] Mattern's article (*Id.* , 1933), entitled "A travers les villes mortes de Haute Syrie", was the first to talk of the "dead cities" of the massif – an evocative definition that remains fairly popular.

This work went through a long phase of gestation, which commenced in the 1930s when Tchalenko – at the time working as an architect in restoration projects at Qal^{c}at Sem^{c}an and Qalbloze – gradually started to amass a great number of drawings of the sites he had occasion to survey.[305] By 1939 Tchalenko had embarked, together with J.Lassus, on an ambitious project which aimed to produce the first monograph of an individual site through the extensive excavation of the village of Brad. The outbreak of the II World War stopped, however, what could have been the only complete archaeological study of a village of the massif to date. Arguably, the abandonment of this project represented a major turning point in shaping the methodology as well as the argument of *Villages antiques*: as regards the former, Tchalenko, together with H.Seyrig and J.Lassus decided to replace the monographic study of Brad with a vast work of synthesis based on the surveys of the 1930s and on a rich repertoire of inscriptions.[306] The methodological change proved, in the short-term, to be the greatest strength of *Villages antiques*, which – as a score of enthusiastic reviewers soon acknowledged – succeeded in providing a detailed narrative of the history of settlement in the Limestone Massif of northern Syria, from the first to the seventh century AD.[307] Yet, the abandonment of direct archaeological investigation was, in the medium-term, to reveal itself as the greatest weakness of Tchalenko's *magnum opus*: the standing remains of the limestone villages deceived the architect Tchalenko who depicted a world of villas owned by absentee landlords, of village bazaars and public squares, of a rich late antique peasantry who – though still capable of making huge profits out of the monoculture of the olive in the sixth century – was made to disappear at the onset of the Arab invasions. Much of this world was quickly rejected once excavations finally got under way in the 1970s; when digging started in Dehes (j.Barisha) in 1976 almost twenty years had passed since the publication of volume III of *Villages antiques*.[308]

It would be impossible to understand the more recent research on the Limestone Massif without briefly outlining the main features of Tchalenko's historical reconstruction. *Village antiques* stood out for its attention to multi-disciplinarily and its diachronic approach, both very fashionable in the French scholarly community dominated, in the post-war years, by the *Annalistes*. Thus, Tchalenko's famous statement that the agricultural regime of the massif had been dominated by the monoculture of the olive found its justification in a long chapter dedicated to the constraints that the environment posed to settlement.[309] Olive monoculture in the jebel had been countered, Tchalenko charged, by cereal culture in the inner and outer plains with the villages along the edges of the massif acting as commercial proxies between the

[305] Tchalenko 1953-8 I:xi-xii.
[306] Tchalenko 1953-8 I:xiii-xiv.
[307] For Sourdel (1956:220) *Villages antiques* "éclaire d'un jour nouveau…. l'histoire. . . de la domination byzantine"; For Bickerman (1957:153), Tchalenko's is "a remarkable piece of geographical archaeology". See also Chastagnol 1958.
[308] It was Tchalenko himself who in 1967 selected Dehes as a site for a monographic study, though large-scale excavation had not been envisaged: see Sodini *et al.* 1980:9.
[309] Tchalenko 1953-8 I:55-91.

mountain and the cities of Antioch and Apamea, Cyrrhus and Beroia. Faced with a dearth of ancient evidence to uphold this, Tchalenko turned to medieval and modern Harim, Ma^{c}aret an-No^{c}man, Idlib and so forth to demonstrate their unchanged condition as "centres d'entrepôts" through which the agricultural surplus of the massif would have flowed in Antiquity.[310] The emphasis on inter-regional and international trade, seen as the real propellant for intensive settlement may well be due, as Gatier has recently noted, to Henri Seyrig's influence on the narrative of *Villages antiques*.[311] Yet, the core of Tchalenko's argument lay in his model of settlement development. Looking as far back as the Bronze Age, Tchalenko identified three main phases of settlement, which he associated with different economic and social regimes. The earliest phase, which is dated to the 1st-3rd century, was dominated by large landowners (whether resident or absentee) who find their architectural counterpart in what the author defines as "villas". In Tchalenko's view, this phase of settlement was a natural consequence of the *pax Romana* which had made it possible for wealthy landowners residing in the great cities of northern Syria to permanently move to their properties in the massif.[312] Later on, between the 4th and the 6th century, the large property is substituted by a more or less uniform stratum of medium landowners whom Tchalenko identified with the occupiers of the highly standardised houses surrounded by walled courtyards. These well-to-do farmers, Tchalenko charged, continued to enrich their villages with public squares, bazaars, churches and bath-houses right until the late 6th century, when the end came suddenly, most likely as a result of voluntary abandonment following a chain of disastrous earthquakes and invasions. Bamuqqa, a small village in the jebel Barisha, was taken by Tchalenko as a case study for his model: settlement here begun in the first century as a "villa" with its annexes (a stable, an oil press and a tomb). Gradually, from the 4th to the 6th century, fifteen small houses were built and, finally, a church. For Tchalenko, the growth of the local population in the face of the very limited arable territory of Bamuqqa could only have been achieved through the contemporary shrinking of the big property. Finally, the absence of any dated construction after the beginning of the 7th century is interpreted as a sign that the village had been abandoned.[313]

At the time of its publication *Villages antiques* was indeed revolutionary in portraying a booming rural society, which had continued to expand right to the end of the sixth century: at a time when the Later Empire was regarded as a period of economic and social decline, Tchalenko's work was to prove very influential in shaping a positive concept of Late Antiquity.

Yet, the weaknesses of its model of historical development were laid bare by the excavation of a dwelling complex at Dehes (1976-9). The area of Dehes composed of houses 101-8 (see Part IV, Fig.4.4) – which Tchalenko had interpreted as an "ensemble commercial" clustered around a square surrounded by public buildings (an *andron*, *stoae* and an inn) – was

[310] See, for instance, Tchalenko 1953-8 I:95-8.
[311] Gatier 2004:60.
[312] Tchalenko 1971:290.
[313] Tchalenko 1953-8 I:300-18.

proved to be nothing more than a group of modest dwellings, built at different phases between the fourth and the sixth century.[314] Trenches dug in the "square" showed that this space had been cut in half by an enclosure, which was contemporary to the earliest phases of the surrounding buildings and represented the walled courtyard of house 2 (comprising buildings 104 and 105). Building 101, which for Tchalenko had been the village *andron* and a place for village assemblies was also revealed to have been a house. Even the existence of an "inn", which for Tchalenko housed the quarters of the market clerks and seasonal workers, was proved erroneous: in particular, excavation showed that mangers – for Butler and Tchalenko attesting to the presence of village "hotels" – were a common feature of village houses. This, in turn, revealed that animal rearing had played a major role in the economy of the massif.

The excavators also questioned Tchalenko's views on the early settlement of the massif by proving that the so-called "first villa", a building in the centre of Dehes regarded by Tchalenko as the dwelling of a first-century wealthy owner, was similar in plan to the other houses of the village and dated – in its earliest recorded phase – to the third century.[315] Finally, the lower end of Tchalenko's chronological framework was to be adjusted: the abundance of pottery from the 7th-9th centuries showed beyond doubt that Dehes had remained fully occupied well beyond the Arab takeover.[316]

The extent to which the excavations of Dehes questioned Tchalenko's conclusions warranted a completed re-assessment of the historical reconstruction. Such re-assessment was in part provided by Tate in his *Les campagnes de la Syrie du Nord*, which remains to date the most accredited (and last to appear) study proposing a comprehensive model of historical development for the Limestone Massif.[317] Tate's methodology was shaped by what he defined as "archéologie sérielle":[318] having selected a sample of forty-six villages, Tate established a relative chronology in which differences in the type of masonry (*appareil*) and decoration used were explained as the product of distinct chronological phases (*tranches de temps*). An absolute chronology could then be established by associating dated inscriptions *in situ* with different types of stonework.[319] Furthermore, Tate noted that the house, with its courtyard, production areas at ground-floor level and living quarters above represented the real social and economic unit of the massif: in each dwelling, large households were divided into many family nuclei, each of whom occupying one of the rooms of the living quarters. In contrast to what advocated by Tchalenko, Tate argued that the economy of the massif had been characterised by widespread polyculture, with animal rearing and arboriculture playing a more substantial role.

[314] Tchalenko 1971; 291. Although excavation has resumed since the 1990s, Sodini *et al.* 1980 remains the standard work on this site.
[315] Bavant *et al.* 1983:86.
[316] Sodini *et al.* 1980:180.
[317] Tate 1992.
[318] This methodology was first set out in Tate 1988. See also Sodini & Tate 1984. For a discussion of Tate's indebtedness to *Annales* and P. Chaunu's "histoire sérielle" see above, 1. 1. 2.
[319] Tate 1992:85-168.

Despite dismissing the large oil surpluses theorised by Tchalenko, Tate argued that limited marketing of agricultural products lay behind the enlargement of houses, which represented the only source of investment for the villagers. On the back of this theory and a chronological framework based on building styles, Tate attempted to study the evolution of the demographic patterns of the massif: for the scholar, phases of economic prosperity corresponded to an increase in multi-room houses – itself evidence, Tate charged, of steep demographic growth. Yet, the demographic "boom" of AD 330-550 was to prove fatal: while accepting that settlement continued through the eighth century, Tate's argument takes on a clear Malthusian flavour in talking of a phase of stagnation that would have begun in the mid-6th century as a result of a shrinking surplus due to the demographic growth of the earlier centuries.[320]

The influence of Tate's *Campagnes* in shaping the modern scholarly views on the history of the Limestone Massif cannot be underestimated. Since its publication, Tate's argument and methodology have rarely if ever been challenged.[321] However, a detailed analysis shows that many aspects remain open to criticism and may allow for different explanations. To such analysis we must now turn.

Tate's Campagnes *and the last twenty years of research in the massif*

Despite promoting excavation at Dehes and Sergilla, Tate, who headed the French archaeological missions in northern Syria for three decades, did not significantly distance himself from the methodology used by Tchalenko in studying the villages of the massif. *Campagnes*, like Tchalenko's *Villages antiques* before it, is primarily a study of the private architecture, and it is by starting with a classification of different types of stonework and their dating that Tate derives his model of historical development. We will now look at the problems that arise when analysing the methodological framework of Tate's work before moving on to describe the weaknesses of his historical argument.

In substance, Tate distinguishes five types of masonry: the double stonework with rough blocks; with irregular and polygonal blocks; with quadrated blocks; and finally the simple masonry with orthogonal ashlars.[322] These are associated with different types of decoration: two types of lintel mouldings (with sub-categories) for the northern chains and four types of façades (with sub-categories) for the jebel Zawiyé.[323] The gradual evolution from double rough masonry with little or no decoration to the simple orthogonal masonry with lavishly decorated lintels would reflect, Tate charges, successive chronological phases as well as an amelioration of the economic conditions which allowed for further specialisation of labour. This argument leads Tate to establish a relative chronology of the types of stonework. Finally, by drawing on the

[320] Tate 1992:340-2.
[321] See Doukellis 1996; Pollard 1995. Horden and Purcell (2000) represent an exception.
[322] Tate 1992:21-3.
[323] Tate 1992:111-2 (northern chains); 131-4 (jebel Zawiyé).

corpus of dated lintel inscriptions *in situ*, Tate identifies five successive chronological phases in the northern chains and six in the jebel Zawiyé.

Table 3.2. Chronological phases in the northern chains and jebel Zawiyé and corresponding types of masonry & decoration (adapted from Tate 1992: 169)

Northern chains	*Jebel Zawiyé*
1. AD 210-480 (double rough)	1. AD 210-380 (double with rough blocks)
2. AD 210-380 (double with polygonal and irregular blocks; simple orthogonal with no Christian decoration)	2. AD 350-500 (simple orthogonal with façades 1-3[1])
3. AD 330-480 (double with quadrated blocks)	3. AD 380-500
4. AD 410-480 (mixed stoneworks)	4. AD 390-450 (simple orthogonal with façades 1-2, simple medallions, capitals type 1[1])
5. AD 450-550 (single orthogonal with Christian decoration)	5. AD 450-500 (simple orthogonal with type 1 façades with lavish decoration and type 3[1])
	6.AD 500-550 (simple orthogonal with type 4 façades[1])

[1] Façades have only been classified for the houses of the jebel Zawiyé. For a detailed description see Tate 1992: 127-162

The first half of *Campagnes* is entirely devoted to building this chronological framework, on which Tate's Malthusian model is later built. However, a closer look at Table 3.2 will immediately reveal two problems: first, Tate's chronology seems to exclude any private building activity before 210 and after 550; second, the chronological brackets which include buildings in double stonework with rough and irregular blocks cover almost three centuries. Both issues, as we will see, ultimately derive from the difficulty to date rough and irregular types of masonry. The first issue is most puzzling given that dated inscriptions abound for the second century AD and exist, though in more limited numbers, through the eighth century. Regarding the first- and second-century inscriptions, Tate observed that they all came from tombs, public buildings (i.e. temples and "androns") and "isolated blocks", thus signalling a phase of development of which "ne subsisteraient que des traces".[324] For this to be true first-to-second-century private dwellings would have had to be either built entirely of timber, a most unlikely case in a region which has always been poorly wooded, or they would have had to be destroyed, either as a result of earthquakes or by anthropogenic phenomena. However, as we shall see later, by the mid-first century the devotees of the sanctuary of Sheikh Barakat were able to build portions of the big temple terrace in double orthogonal masonry for relatively small amounts of cash. If this does not prove that private houses would also have been built with the same type of stonework, it does show that stone-cutting expertise was already firmly established in the region at this early date. Similarly, the imposing distyle monuments and mausolea of the second century AD attest to the locals' capacity to use polygonal, quadrated and orthogonal masonry in the context of funerary architecture. Confronted with the wealth of evidence for public and funerary architecture, the argument that none of the first-to-second

[324] Tate 1992:177.

century private dwellings would have survived seems hard to accept. The reason for the complete lack of dated houses in the period between the 50s and 207 (to which the first inscription found *in situ* on a house is dated – PPUAES IIIB n.1175 from Brad) and their very limited number through the third century may well lie in a different epigraphic custom, with funerary buildings more likely to receive inscriptions while private dwellings were not regarded as worthy of such additional expense.

Decorations and inscriptions are rare on houses built in double stonework with roughly- and irregularly-cut blocks – the two earliest types of masonry in Tate's classification. The difficulties in dating these houses, which make up as much as 29% of all the dwellings studied in the jebel Zawiyé – are patent. Tate's chronological *termini* of 210 and 480 (380 for the jebel Zawiyé) are respectively based on one inscription *in situ* (the already mentioned text from Brad) and on the end of mixed stonework including both double rough and single orthogonal masonry. Yet, the vast majority of the houses in double rough and irregular stonework have neither inscription nor decoration and there is no reason to believe that many of them could not have been built before 207.

Moreover, excavation at Dehes and Qal^{c}at Sem^{c}an has shown that this type of stonework continued to be used well into the sixth century. In Dehes, the stratigraphy of the S annex of building 103, built in double irregular stonework, has shown that it was built in the sixth century at the same time as the orthogonal masonry of buildings 101, 105, 106, 108.[325] More recently, a row of shops excavated in Qal^{c}at Sem^{c}an has shown that single orthogonal and double rough stoneworks coexisted in the first half of the sixth century.[326]

This evidence from Dehes and Qal^{c}at Sem^{c}an puts the entire chronological framework of *Campagnes* into serious question: if buildings with double rough and irregular stonework, the backbone of Tate's phases 1 and 2, continued to be built over a period of six centuries without noticeable transformations in their masonry/decoration it becomes impossible to make any positive assertion regarding their chronology. The study of the facades of the jebel Zawiyé is a case in point. Here, 471 of the 1595 facades analysed (i.e. 29%) were built in double rough masonry and dated by Tate between 210 - adopting the *terminus post quem* of the northern chains – and 396 – the year to which the first house entirely built in single orthogonal masonry is dated.[327] Yet, there is no reason, once again, to believe that houses in double stonework could not have been built after the introduction of the single orthogonal masonry – as the case of Dehes has shown. In fact, a recent re-assessment of the ceramic evidence from Dehes may authorise us to go even further. Jodi Magness has criticised the dating of the first phase of

[325] Sodini *et al.* 1980:90-3; Bavant *et al.* 1983:85.
[326] Pieri 2011:1402-4.
[327] Tate 1992:126 (on the *terminus ante*); 164 (on the *terminus post*, where he cautions that "il va de soi que ces dates représentent des limites approximatives"). To the 463 houses in double masonry with no detectable decoration we should also add a further 306 cases of single-orthogonal houses with unclassifiable facades. This brings the number of undateable houses to 769 or 48% of the total. See table 9 in Tate 1992:127.

complex 101-8 to the fourth century, charging that the fourth-century material – mostly coins and an inscription dated to 360/1 – could have been filling from earlier occupation in the area rather than the context contemporary to the building activity. Indeed, the presence of sixth- and early-seventh century pottery beneath the earliest Floor V in building 104 would seem to support this view. Consequently, Magness has dated the building of all houses – whether with orthogonal or rough masonry – to the mid-sixth-to-seventh century arguing that settlement, at least in the area of complex 101-8, flourished between the sixth and the ninth century rather than between the fourth and sixth, as argued by the excavators.[328]

If accepted for the entire massif, Magness's conclusions on Dehes 101-8 would lead to delay the settlement "boom" of some two centuries, with a period of stagnation falling in the fifth century – to which Tate attributed, instead, the bulk of demographic growth. This is somewhat hard to believe in view of the same argument posited above regarding the supposed disappearance of all private architecture dating from the first and second centuries AD: fourth and fifth century lintel inscriptions *in situ* are too numerous and fit in the houses' facades too well to be all regarded as *spolia*. However, Magness's take on Dehes 101-8 does show that houses continued to be built well beyond Tate's final *terminus* of 550. Such a reconstruction is far from surprising and it is even confirmed by a small group of inscriptions, which Tate ignored.[329] These include the building inscription of a house dated to AD 716/7, and a dated lintel to be assigned to AD 591-600.[330] Even more surprising is the absence of any mention to PPUAES IVB n. 51, a Syriac building inscription from Kafr Lab dated to AD 772/3, despite the fact that Tate mentions PPUAES IV B nos. 26-7 (dated respectively to 577/8 and 578/9).

The fragility of Tate's chronological framework has a serious impact on the credibility of his historical argument. Its major weaknesses may be summed up in the following two points: first, the impossibility of charting local demographic and economic patterns by looking at the supposed growth in numbers of rooms; second, the obstacles encountered by Tate's Malthusian argument when confronted with a more gradual but longer wave of settlement growth, which appears to have continued unabated over nine centuries.

The first point is easily explained. By associating, as said above, each room of a house to a nuclear family, Tate believed to be able to chart the phases of demographic growth in the massif. Fig. 3.1 reproduces Tate's graph of the demographic change between AD 1 and 550, which is fundamentally based on the chronology of masonry analysed above, with one *caveat*. As we have seen, Tate's chronology of masonry does not cover the first two centuries AD: therefore, the portion of the graph covering the period AD 1-200 is not correlated to growth in numbers of rooms, but only to the growth of dated funerary inscriptions.

[328] Magness 2003:205.
[329] Tate 1992:179; 184.
[330] Jarry 1967 n. 11 (Kefr Kermin); Jarry 1970b n. 13 (Sarfud). Jarry 1967 n. 118 from the same locality may also have been dated to the seventh century.

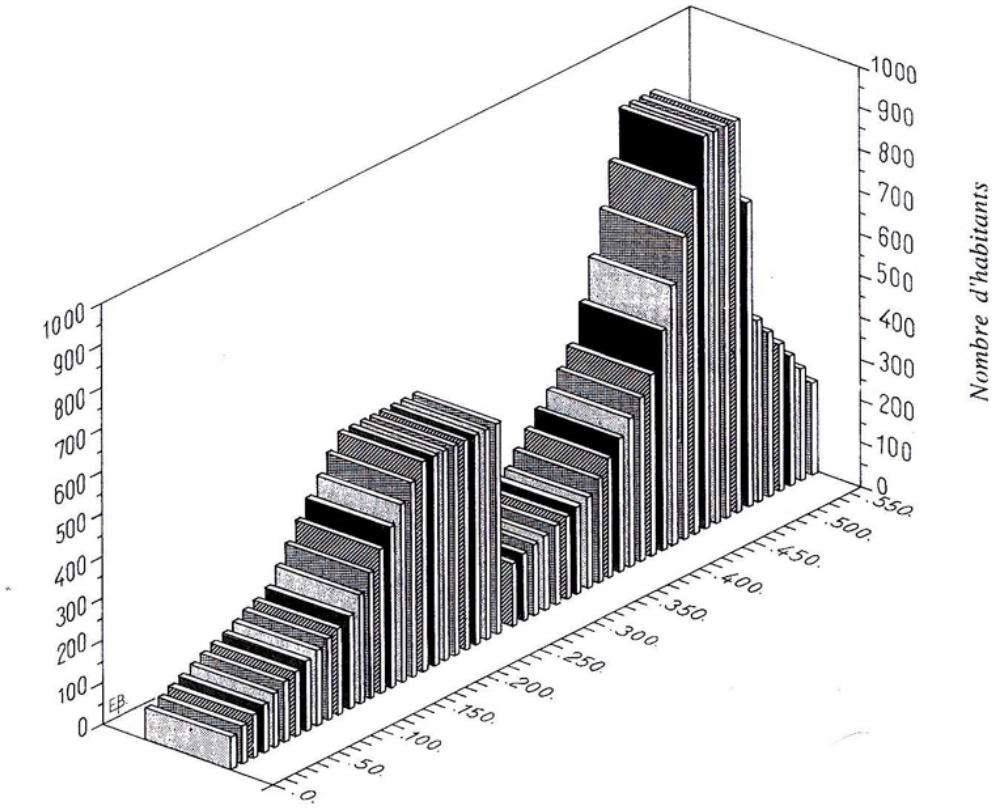

Fig. 3.1 Demographic growth based on chronology of building phases (from Tate 1992: 184)

For Tate, the graph shows how, after a slow beginning in the first century and a considerable growth between the second and mid-third century, population growth would have stopped around 250 as a consequence of the plague of Cyprian and of the Persian invasions. Renewed growth in the fourth century led to an optimum around 450-80 followed then by gradual decrease until 550, when owing to epidemics and invasions a phase of stagnation ensued. Yet, if the impossibility of defining the chronology of double rough and irregular stonework and the archaeological findings of Dehes are taken into account, much of Tate's demographic theory crumbles: for example, if the number of rooms of double rough houses in the jebel Zawiyé is distributed evenly across the period 0-550, demographic patterns change dramatically, most notably eliminating the phase of "decline" in the 250s. Furthermore, late-sixth-to-eighth century inscriptions and the archaeological evidence from Dehes show that private building, both in double and single orthogonal masonry, continued well beyond the 550s. Whilst ups and downs in the rhythm of construction no doubt happened, any attempt at dating them on the basis of a relative chronology of masonry is doomed to failure. The problems with Tate's methodology make most of his discussion on the economic development of the massif between 330 and 550 seriously flawed. Having established the average size of a village territory (by dividing the total area subject to survey, i.e. 510 km^2, by 179 villages identified) as being 2.8 km^2, Tate divided it by the average number of rooms in a village in an attempt to chart

the variations of the ratio land/room over the centuries.[331] In his view, each room would have commanded some 10-20 ha of land (depending on which jebel is considered) in AD 330, which fell to 2-4 ha by 550.[332] If proven right, the decline of land/room would again support the view that diminishing returns were to blame for the crisis of the massif in the late sixth century. But this argument rests on wrong assumptions derived from the dating of the double rough and irregular masonry and must, as its demographic counterpart seen above, be rejected.

The rejection of Tate's Malthusian theory stems directly from this: if demographic crises cannot be identified with precision, it becomes impossible to argue that plagues – whether in the third or sixth century – would have acted as positive checks on a peasantry weakened by the diminishing returns of the land. Moreover, the identification of the period between 550 and 610 with a phase of stagnation, which Tate thought to be triggered by the combination of diseases, crop failures and wars, finds no confirmation in the evidence. Indeed, Tate's remarks on this final period of occupation of the massif are contradictory at best: whilst arguing strongly for an end to house building in the 550s, Tate is forced to recognise, in the face of the epigraphic evidence, that churches continued to be built up to 610. Both of these statements, as we have seen, are wrong – with Greek and Syriac inscriptions confirming the continuation of private and religious architecture down to the eighth century (see section 4.4). But even if we were to accept Tate's evidence at face value, it would be difficult to see how a population on the brink of starvation as a consequence of diminishing returns, could still afford to build churches, while at the same time failing to store up enough surplus to build a new house, or enlarge an older one.

Having outlined the weaknesses of Tate's methodology and historical model, what can be said of its strengths? First, one should note that *Campagnes* was the first work to argue for a regime of mixed agriculture and animal husbandry in the massif, thus distancing itself from the economic theories of Tchalenko which had over-emphasised the monoculture of the olive. In general, Tate's classification of buildings, with his nuanced criticism of Butler's and Tchalenko's categories of public buildings (inns, *androne*s and shops) remains extremely valuable. Tate rightly looked at the village house as the core economic unit, which included the productive and dwelling quarters as well as an enclosed space, the walled courtyard, which was the real centre of the household. Also, the author emphasised some of the key factors in the determination of early settlement patterns, pointing, for example, to hilltop sanctuaries as early foci of settlement concentration.[333] Finally, regarding the economic development of the region, Tate rightly stressed the importance of regional, rather than international markets as the prime outlets for the agricultural surpluses of the region.[334]

[331] Tate 1992:315ff.
[332] Tate 1992:315 (Tb. 44).
[333] Tate 1992:287-299.
[334] Tate 1992:331-2.

Before concluding this historiographical survey, it will be necessary to briefly outline other archaeological projects, which have been carried out in the massif. Surveys in search of Theodoret's Nikertai (see below) led Pierre and Maria Canivet to the discovery of several sites in the plateau north of Apamea, including that of what was probably a monastery complex with a basilical church and a large oil press.[335] The same scholars also conducted large-scale excavation in the church complex of Huarte, a village located in the southern portion of the jebel Zawiyé ca. 11 km north of Apamea.[336] In the northern massifs, a series of surveys was carried out by the Franciscan fathers I.Peña, P.Castellana and R.Fernanandez between the 1980s and 2000s.[337] While the authors follow Tchalenko's model of historical development, with its characteristic emphasis on oleiculture and the acceptance of the Pirenne's thesis as the cause for the end of settlement, their surveys are of great importance for their coverage of areas which had been previously neglected, particularly in the jebels Wastani and Doueili. Furthermore, the Franciscan fathers provide a great number of unpublished funerary inscriptions which, albeit given without edition, represent an invaluable addition to the number of dated texts from the massif, and particularly for the first three centuries AD. In the context of the Franciscan surveys should also be placed the doctoral work of W.Khoury, who produced a monograph of the village of Deir Seta in the jebel Barisha.[338] Like the surveys of the Franciscan fathers, Khoury follows Tchalenko's model of development and accepts his typology of buildings, especially in identifying *androne*s and inns. Although Khoury focuses only on the development of the village in the Christian period, her method, which consists in dividing the village in quarters, each of which gravitating around a landmark public building, is relevant for all periods. As we will see, the development of villages "by clusters" is indeed one of the defining features of settlement in the massif.

Finally, some words must be said on the on-going projects in the region. Alongside smaller-scope studies, such as those by Callot and Gatier on the high-place sanctuaries of the northern chains, or Griesheimer's study of funerary architecture, three excavation projects have been pursued, with cursory interruptions, over the last twenty years: the excavation of Dehes, now directed by O.Callot and B.Bavant; the excavation of Sergilla, headed by G.Charpentier; and the study of Qal^{c}at and Deir Sem^{c}an, under the direction of J.-P. Sodini and J.-L. Biscop. While parts of the latter two studies have been occasionally published, the excavation of Dehes – now focusing on the oil and wine presses – remains entirely unpublished. In the following chapters, mention will be made of the preliminary results of all of these projects as recorded in the unpublished excavation reports.[339]

[335] On the survey in general see Canivet & Canivet 1971; *Eid*. 1987. For more details see below, section 4. 3.
[336] Canivet & Canivet 1987. The accidental discovery of a *mithraeum* beneath the church of Photios in Huarte led to additional campaigns in the 1990s and 2000s (see section 4. 2).
[337] Peña *et al.* 1987; 1990; 1999; 2003.
[338] Khoury 1987.
[339] *Syrie du Nord* 1995-2007.

3.3. Settlement patterns and the gestation of a village society: the Limestone Massif in the early Roman period (1st-3rd c. AD)

In his *Villages antiques*, Georges Tchalenko rightly distinguished the evolution of settlement in the inner valleys and plains surrounding the limestone chains from settlement in the mountainous core of the region. Plains and inner valleys (*polje* and large *dolines*) were ecologically more suited to agricultural exploitation for the reasons described above concerning the depth of topsoil and availability of water resources. The uneven distribution of springs in the Rug *polje*, where most are concentrated along the eastern edge, as we have seen, explains the larger numbers of Neolithic and Bronze Age tells found here in comparison to the western edge of the valley. Similar ecological advantages may be adduced to explain the fortunes of the inner plain of Dana, where Bronze and Iron Age settlement is historically attested: the Karnak lists of Thutmosis III (1479-1435 BC) mention Turmanna (Turmanin) and Srmeret (Sarmada) as tributaries of Egypt. Later on, Shelmanaser III passed by Adennou (Dana) while marching on Damascus in 849 BC.[340] Settlement in the plains and inner valleys proved also to be longer lasting. The surface pottery collected by Courtois during a survey of the tells of the Rug valley covers all periods from the Early Bronze Age to the Islamic Middle Ages.[341] The site of Me^{c}ez, situated in a large *doline* in the jebel Barisha, was a fully developed village by the mid-second century and remained so until at least the late-fifteenth century – churches replacing temples, and mosques churches.[342] Thus, better water resources and deeper soil deposits were the two aspects that made settlement in the valleys around and inside the massif not only more precocious, but also more likely to resist the shocks, whether natural or anthropogenic, that eventually led to the abandonment of large tracts of the region's mountainous areas. Research conducted in the latter has so far failed to reveal traces of occupation dating before the late Hellenistic period.[343] The earliest ceramic material found in sites of the jebel dates to the second century BC. In terms of the epigraphic record, the earliest inscription (probably a funerary epitaph) is dated to AD 63/4 and was found in the vicinity of Dehes in the jebel Barisha.[344] We can regard this inscription as the *terminus post quem* for the beginning of what we will call a "monumental" phase of settlement: in the following 150 years, the occupants of the massif would build sanctuaries, monumental tombs and public buildings alongside their houses.

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[340] For the lists of Thutmosis III see Tomkins 1893:231 n. 125 (Turmanin); 244 n. 234 (Sarmada). Dussaud 1927:243 (Dana).
[341] Courtois 1973:88ff.
[342] Tchalenko 1953-8 I:280.
[343] However, studies of the region have so far mostly concentrated on Hellenistic to early-Islamic material. Therefore, Wilkinson has rightly noted (2004: 63) that the lack of evidence of upland settlement preceding the late-Hellenistic period might be due to the excavators' failure to record it rather than to its historical absence.
[344] The inscription comes from Bir Hasan, a site close to Dehes. Jarry 1985 n. 14. An even earlier text was copied by Jarry in a cave in the vicinity of Bafittin in the jebel Barisha (Jarry 1967 n. 153. 1); this text, of which no drawing or photograph is given, is dated to AD 23.

Yet, before we turn to the analysis of this monumental phase we must also look at the much more obscure settlement that preceded it and which may be only loosely dated to the mid-second-to-first century BC. This is something that both Tchalenko and Tate proved unwilling to do owing to the difficulties posed by the evidence: this is represented by a small set of dated inscriptions, residual pottery and Hellenistic coins found in much later layers (most often of 6th and 7th-century date), a fact that makes it impossible to associate this material with any specific building activity. Furthermore, the small number of excavations and total absence of large-scale surface pottery surveys make an assessment of the extent – let alone the nature – of Hellenistic and early-Roman (i.e. up to the mid-first century AD) occupation in the massif hardly attainable. What follows should be therefore regarded as a tentative interpretation of the available data, which would need to be verified by more extensive field surveys.

The earliest evidence attesting to occupation of the jebels is archaeological and comes from the few soundings and excavations that have been carried out in the region. With the exception of Qal^{c}at Sem^{c}an, the ancient martyrion of Saint Symeon the Elder, all of the excavated sites of the region have yielded Hellenistic or early-Roman pottery. From north to south, the sites of Qal^{c}at Kalota (j. Sem^{c}an), Sheikh Barakat (j.Halaqa), Srir (j.Srir), Burj Baqirha, Dehes (j.Barisha), Sergilla and Huarte (j.Zawiyé) have produced material covering the chronological spectrum between the mid-second century BC and the first century AD. Diagnostic pottery is represented by Eastern sigillata A (ESA) shapes, primarily open forms such as Megarian bowls (Burj Baqirha and Huarte), Hayes 5 (Kalota and Srir), 20 (Sergilla) and 24 (Sergilla and Dehes).[345] Coins found at Dehes also confirm that the site was occupied in the late Hellenistic period.[346] In the lack of more extensive surveys, it is difficult to specify the nature of settlement at these sites and to say whether they represented rare cases of occupation in an otherwise deserted landscape or whether they are revealing of diffused occupation of the region as early as the second century BC. Even at excavated sites, no built structure has so far been associated with this phase, a fact that prompted the excavators of Sergilla to interpret the earliest material from the site as evidence of seasonal or semi-nomadic occupation.[347]

Dated inscriptions, which become so plentiful from the second century AD, are rare for the earlier period. Only eleven texts are dated or can be assigned to the first century.[348] These

[345] The Hellenistic and early-Roman pottery assemblages from these sites remain largely unpublished. See, provisionally, Bavant & Orssaud 2001:35 (Dehes); *Syrie du Nord* 2005:6-8 (Sergilla); Canivet & Canivet 1987:351-6.
[346] Callot 1998. See also the table of Hellenistic coins found in Dehes 101-8 given by Morrisson *apud* Sodini *et al.* 1980:276.
[347] *Syrie du Nord* 2005:8.
[348] The texts from the northern jebel Barisha are:Jarry 1985a n. 14 = *Id*. 1997:106 n. 2 (Dehes, AD 63/4); Jarry 1992 n. 3 (Banqusa, AD 88, my corrections based on a photograph published in Peña *et al*, *Barisha*:65 fig. 56); Jarry 1967 n. 153. 1 (environs of Bafittin, AD 23). From the site of Sheikh Barakat:*IGLS* II 465 (AD 86); 466 (after AD 86); 472 (AD 61-86); 473 (before AD 86?). Environs:*IGLS* II 427 (Refadeh, AD 73/4); Castellana 2002-2003:103 (Breij, AD 82). From the jebel al-^{c}Ala:Jarry 1982 n. 45 (AD 96, Shembashar); Jarry 1967 n. 125 (Kafr Mu, AD 101/2). I have also included a text from

are exclusively located in the northern chains of the Limestone Massif, and particularly in the northern jebel Barisha (3 inscriptions) and on the site of Jebel Sheikh Barakat and its vicinity (6). Another two texts come from the sites of Kafr Mu and Shembashar in the northern jebel al-ᶜAla. With the exception of the group of texts from Sheikh Barakat, which attest to the building of a high place sanctuary on this mountain (see below), the other texts are funerary inscriptions, which are sometimes associated with reliefs (Kafr Mu) or funerary architecture (e.g. distyle monuments probably at Shembashar and Breij).

If various forms of temporary or nomadic occupation of the region may be posited for the period up to the first century BC, funerary and building inscriptions suggest that a more lasting form of settlement had been established by the beginning of the Christian era. The causes that led to this transformation are unclear. Tchalenko and Tate left the point unexplained, believing the region to have remained almost completely empty until the early-second century.[349] From this standpoint, several commentators have argued that immigration of foreign elements and particularly the settlement of veterans should be regarded as the main causes for the full sedentarisation of the Limestone Massif.[350] This theory is entirely based on epigraphic evidence and particularly on the presence of significant numbers of Latin names in the local onomastics, a fact that has prompted some scholars to believe that many of the first settlers of the massif had Roman citizenship.

A closer look at the inscriptions however, reveals a more complex pattern in which Semitic, Greek and Latin names intertwined. Eclecticism in name selection is typical of Roman and Byzantine Syria in general and finds in the onomastics of the Limestone Massif one of its most illustrative examples.[351] The inscriptions dated (or assigned) to the period up to AD 200 yield a total of 132 different names, of which ca. 23% may be regarded as Semitic, 43% as Greek and 28% as Roman (Fig.3.2).

Kafr Mu, located ca. 1 km to the west of Shembashar and dated to AD 101 for it very likely contains a reference to a person named also at Shembashar.

[349] E. g. Tate 1992:284.

[350] Most recently De Giorgi 2006:282-5; *Id*. 2007.

[351] For the onomastics of Syria in general see Rey-Coquais 1979; Sartre 2007.

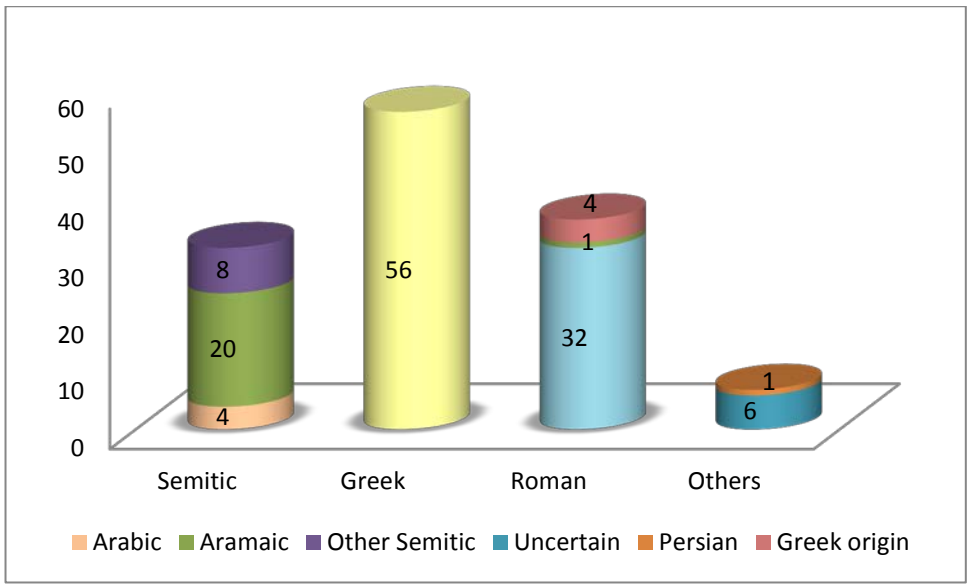

Fig. 3.2. Distribution of personal names by origin of names in dated inscriptions (1st-2nd c. AD)

Such pattern undoubtedly attests to a milieu already integrated in the wider social dynamics of Syria, but the large numbers of Greek and Latin names should not be interpreted as evidence that Macedonians and Italians were the driving force behind the sedentarisation of the Limestone Massif. First, a significant share of seemingly Greek names may well conceal Semitic ones; this is particularly true for theophoric names (10 out of 57 Greek names in our sample) such as Diodotos and Diodoros, which often find exact parallels in Aramaic onomastics.[352] To these, we must add Greek and Roman "false friends" like Germanos (which crops up twice in our sample), which, besides being a name of Latin origin, may have also been the transliteration of an Arabic GRMN.[353] When these cases are taken into account, the Hellenised and Romanised outlook of the local onomastic pool becomes less straightforward.

All evidence seems to point to the existence of human groups for whom the choice of personal names did not necessarily depend on conscious cultural decisions, but rather on individual taste.[354] This is apparent when we look at the evolution of the onomastic pool over two generations, an assessment made possible by the almost ubiquitous presence of patronymics in the epigraphic record of the region. Fig. 3.3 presents the data. The first three bars correspond to closed onomastic groups in which father and son bear names taken from the same onomastic pool (Greek, Semitic, Roman). When this happened, ethnic considerations may sometimes (but by no means always) follow: for example, C. Marius Silvanus and his son (C.Marius) Fronton

[352] Diodotos is the equivalent of the Aramaic B'LYHB, "Baal has gifted". The equivalence is sometimes made explicit in inscriptions, e. g. *IGLS* XI 4 (Deir al-'Ashaiyer, Mt. Hermon): Διοδότου τοῦ καὶ Βελιαβου. On Greek and Semitic theophoric names: Rey-Coquais 1979:174.
[353] Sartre 2007:211-4 (Tb. 4).
[354] As noted by Sartre 2007:231.

are likely to have been of Italian origin.[355] Yet, the majority of Roman citizens bore Greek or even Semitic *cognomina* and point to a local milieu of people who had received the *civitas* either for their own individual merits or following the end of military service.

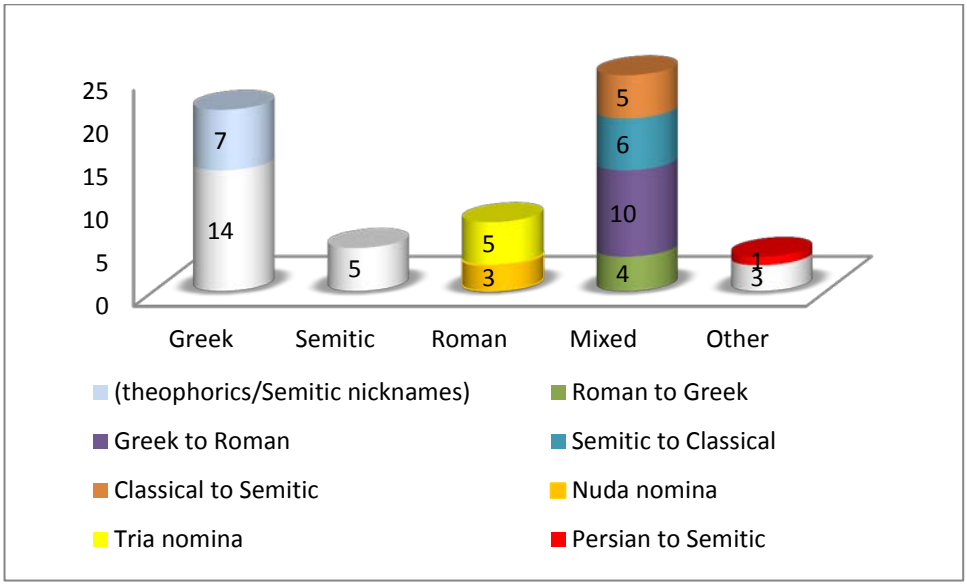

Fig. 3.3. Tendencies in the onomastic pool over two generations (1st-2nd c. AD)

If closed groups present difficulties, Fig. 3.3 shows that mixed onomastics were the norm. Particularly interesting is the Classical-to-Semitic group, which contributes 5 instances in total. Cases such as Apollas son of Malchion and Marun son of Lucius stand as clear evidence that ethnic origin and onomastics seldom went together.[356] When the full epigraphic record is taken into account, therefore, the onomastic evidence for groups of foreign immigrants in the Massif becomes much slimmer.

The role of veterans in the settlement of the massif should also be reassessed. I would argue that veterans had a qualitative rather than quantitative impact on settlement patterns. Of the 37 Roman names present in our sample, 20 may be classed as *nuda nomina*, i.e. *praenomina*, *nomina* or *cognomina* which entered the local onomastic pool and which *peregrini* adopted as much as they did for Semitic and Greek names. The many Caii, Tiberii, Iunii, Iulianii are unlikely to have been Roman citizens. As Rey-Coquais noted, *nuda nomina* were normally borne by the lower urban and rural classes who were influenced by Roman prestige as manifested by the presence of the army or of veterans.[357] Even when full (or partial) *tria nomina* are provided (18 instances), at least four cases bear a Greek *cognomen* while one (Claudia Kiparoun) bears a Semitic name. Moreover, except one case, all of the Roman citizens of the

[355] Gatier, *Villages* n. A (AD 135, Qalᶜat Kalota). In a study of Italian immigrants in Hellenistic Greece, Errington (1988:145) adopted the "practical (though by no means fool-proof) criterion of regarding those with an Italian name and patronymic as of Italian origin".
[356] Jarry 1992 n. 8 (AD 126, Kafr ᶜAruq); *IGLS* II 647 (2nd-3rd c. ,'Anzeran).
[357] Rey-Coquais 1979:180. On *nuda nomina* see Rizakis 1996.

Limestone Massif disregarded the Latin name format and added their patronymic after their name in the format *uios X*. This, as observed by Daux, betrays little familiarity with Roman onomastic conventions and suggests local or at least Hellenic origin.[358]

From this quick survey we can conclude that the thesis concerning an exogenous cause for the sedentarisation of the Limestone Massif should be abandoned. Neither foreigners nor veterans (whether of Syrian or foreign origin) played a quantitatively significant role in the settlement of the region. Rather, a local milieu of Syrians with close ties to the Greco-Roman world of the nearby cities was likely the main factor in the gradual expansion of settlement in the region. At the same time, the few families of immigrants/veterans (e.g. the Marii of Qal^{c}at Kalota or the Valerii of Brad) are likely to have had a qualitative impact on the social *equilibria* of the region. As we will see below, Roman citizens (whether veterans or not) often crop up as *epimelêtai*, an official role that was seemingly attributed to members of the local élites.

Having discussed the origin of the first settlers, we should now turn to discussing patterns of settlement. The evidence suggests that foci of human aggregation were determined primarily by ecological factors and by the vicinity to topographically prominent features that quickly assumed a religious connotation. Here, from the mid-first century, epigraphic and archaeological sources confirm the building of hilltop sanctuaries, which, by acting as centres of settlement aggregation, are likely to have exerted a function similar to that of the sanctuary of Baalshamin in the jebel al-^{c}Arab (see above, section 2.2.2).

So far, these sanctuaries have only been identified in that part of the region that fell within the territory of Antioch. In the northern chains, from east to west, we find the sanctuaries of Qal^{c}at Kalota (jebel Sem^{c}an), Jebel Sheikh Barakat (jebel Halaqa), Srir (jebel Srir), Burj Baqirha (jebel Barisha) and el-Hosn (jebel Wastani).[359] More recently, Kreuz has pointed to the site of Burj Mahdoum, a low mound ca. 2 km south of Sermada in the Dana plain as the site of a high-place sanctuary, but this identification remains conjectural.[360] In that part of the jebel Zawiyé that belonged to Antiochene, Griesheimer revealed the existence of another hilltop sanctuary located close to the village of Schnaan.[361]

The topography and architecture of these sanctuaries as well as the gods worshipped leave no doubt that the sacred landscape of the massif was one dominated by ancestral Semitic cults identified with the mountain peaks of the region. Starting in the Hellenistic period, the deities worshipped on the high places of the massif were all assimilated with Zeus: Zeus Seimos at Qal^{c}at Kalota; Zeus Madbachos at Sheikh Barakat; Zeus Tourbarachos at Srir; Zeus Bômos at Burj Baqirha and Zeus Koryphaios at el-Hosn. The names of the deities worshipped at Schnaan have not survived, but the reliefs found there conjure up a number of similarities with the cults of the northern chains. With the exception of Qal^{c}at Kalota, the names of the deities clearly

[358] Daux 1977:412-3.
[359] See, in particular, Callot & Marcillet-Jaubert 1984; Callot 1997; Gatier 1997; Callot & Gatier 1999.
[360] Kreuz 2003:173.
[361] Griesheimer 1999.

recall the cult of sacred mountain tops or altars associated with them: *bômos*, "altar", is the Greek equivalent of "madbachos" (Semitic MDBḤ);[362] "tourbarachos" derives from the Semitic roots ṬWR ("mountain") and BRK ("bless") and means "blessed mountain" while Zeus Koryphaios is clearly "Zeus (of) the summit".[363] As for Si^{c}, the "levelled square" of the Hawran, the summits of the northern chains of the massif owed their sacralisation to their topographic prominence. The importance of visibility for these sanctuaries is confirmed by viewshed analysis which is displayed in Fig. 3.4.[364] The figure shows, alongside the five hilltop sanctuaries of the northern chains, the placement of all the settlements that have yielded inscriptions dated up to AD 200. The fact that the majority of these sites is located in view of one or more of the sanctuaries is unlikely to be a coincidence and suggests that both settlement patterns and the sacralisation of given sites were determined by topographic considerations as well as by ecological ones.[365]

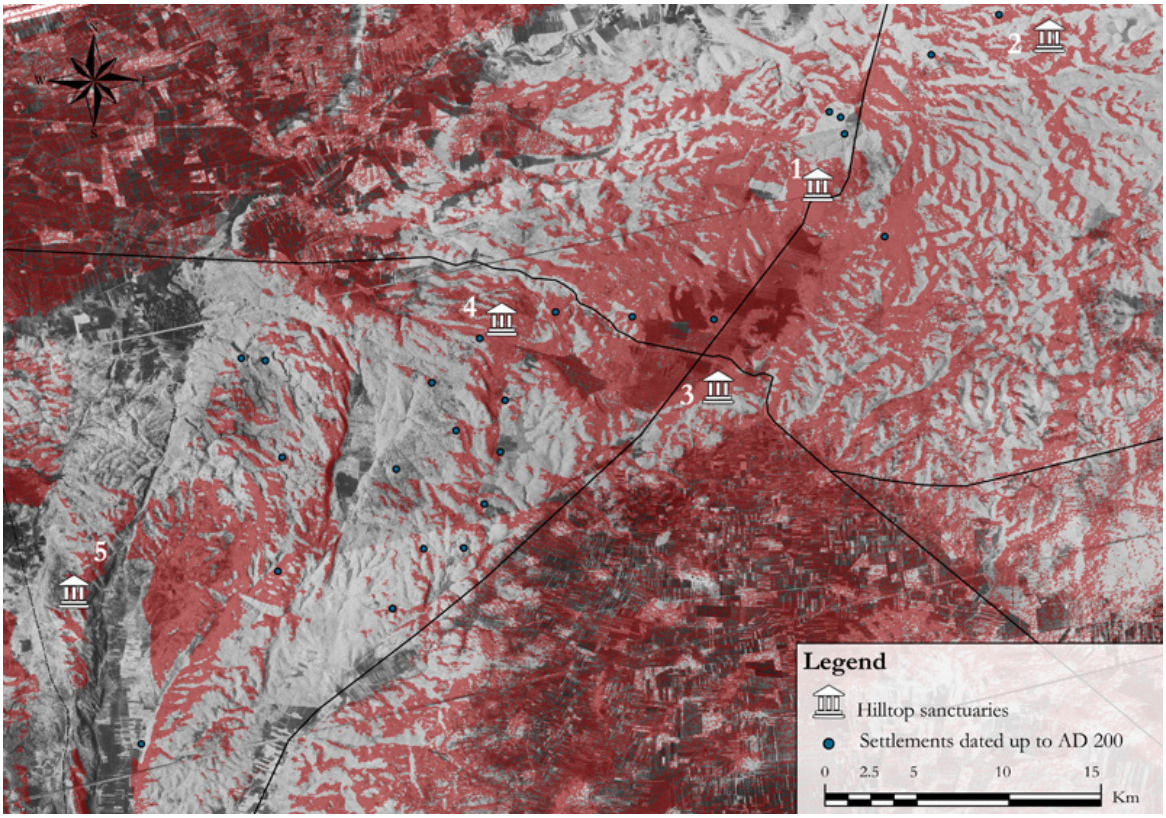

Fig.3.4. Viewshed analysis of hilltop sanctuaries in the northern chains. Areas visible from the sanctuaries are shaded in red. 1) Sheikh Barakat; 2) Qal^{c}at Kalota; 3) Srir; 4) Burj Baqirha; 5) al-Hosn. Backdrop: Corona imagery, 31 Jul 1969 (© Center for Advanced Spatial Technologies, University of Arkansas/U.S. Geological Survey)

[362] Millar 1993:255.
[363] Millar 1993:254.
[364] The viewshed was obtained using ESRI ArcGIS 10 from ASTER GDEM 2 elevation data. This latter is a product of METI and NASA. OFFSETA for the observation points was set at 10 m.
[365] The sanctuaries of Qal^{c}at Kalota, Srir, Sheikh Barakat and Burj Baqirha were all connected by "lines of sight". Schaan and al-Hosn, on the other hand, have commanding views respectively over the plain of Chalcis and the Amuq valley. At a time when the region was far from densely settled, this network of visual interactions afforded a first rudimental form of control over wide expanses of land and protected settlers from unexpected raids. For the importance of "lines of sight": Horden & Purcell 2000:124-5; 421.

Even though no built structure survives from the period before the mid-first century AD, the archaeology seems to suggest that simple shrines were already in place as much as two centuries earlier. Soundings at Burj Baqirha have revealed the presence of fragments of numerous ESA shapes, amongst which those of a Megarian bowl, a type that becomes widely available from the second century BC; further, several fragments of *unguentaria* dated to the mid-second-to-first century BC were retrieved.[366] Although the Hellenistic material was largely classed as residual, its context is of interest: pre-Roman shards were only found in the excavation of a monumental altar next to the temple, while trenches in the temple proper did not yield any pottery earlier than the second century AD. Even if the nature of the pottery assemblage does not allow us to use it to date the altar, the correlation between the deity worshipped, "Zeus the altar" and the findspot of the earliest ceramic material is unlikely to be a coincidence: it suggests that the centre of the earliest cult was the altar itself, which must have been established as early as the second century BC.

ESA sherds dated between the second century BC and the first century AD, were also found at Qal^{c}at Kalota and Srir though in these two cases the context of the findings was of lesser significance.[367] Imports of finewares at these locations confirm a pattern already discussed with regard to the local onomastics: far from being isolated in their mountains, the first inhabitants of the Limestone Massif were integrated in the social and economic contexts of northern Syria and the eastern Mediterranean. Another explanation for the presence of imported pottery may be sought in the popularity of the hilltop sanctuaries, which may have attracted pilgrims from outside the region. However, with the exception of a wheat merchant from Antioch who figures among the financers of Sheikh Barakat, no evidence authorises to see the hilltop sanctuaries of the region as major inter-regional pilgrim centres: this did not happen until the late-fifth century, when Symeon the Elder established his famous *mandra* on yet another rocky escarpment (Part IV).[368]

The study of building inscriptions from the sites of the hilltop sanctuaries allows us to gain a better understanding of the origin and social conditions of the worshippers. The sanctuary of Sheikh Barakat deserves particular attention for being the earliest dated and the one built on the highest peak of the northern section of the massif (870 m). Theodoret called this mountain *Koryphê*, literally the "summit", and described it as a "large conical mountain" that lay above all of the surrounding mountains and had been the site of an important "temple of demons".[369]

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[366] Rousset 1999:1-2.
[367] Rousset 1998a (Kalota); 1998b (Srir).
[368] In the mid-fifth century, Theodoret (*HR* IV. 2) described the abandoned Sheikh Barakat as a cult place of great fame among "those of the neighbourhood" (*geitoneuontôn*). For the *sitopôles* from Antioch at Sheikh Barakat: Jarry 1967 n. 41.
[369] Theod. , *HR* IV. 2. Alongside the description of Sheikh Barakat itself, Theodoret also describes the village of Teleda and its nearby monastery founded by Ammianus and headed by Eusebius. See below (section IV).

The sanctuary was dedicated to the cult of the "ancestral gods" Zeus Madbachos and Selamanes, both of Semitic origin: the root MDBḤ ("the altar"), is found in Aramaic and may indicate the cult of a *betyl*, a stone that was believed to house the spirit of a god. ŠLMN is the root of the names of the Assyrian god Shalmanu and the Phoenician Shalman, whose cult in Syria is attested since as far back as the end of the second millennium BC.[370] Soundings dug inside the *temenos*, and particularly in the area of the altar suggest that it had been occupied since the Hellenistic period: not unexpectedly, the cult seems to have long predated any significant building activity.[371] The sanctuary was built on a high terrace, which could be accessed via three ramps; these in turn led into a large porticoed *temenos*, at the centre of which the temple was built. The *peribolos* of the sanctuary, a square with sides of ca. 68 m, was built in double masonry of dressed ashlars up to 1.5 m in length that rested directly on the levelled-off bedrock.[372] A sizeable corpus of inscriptions found along the *peribolos* (some of which were found *in situ*) suggests that the sanctuary was built over several phases starting sometime before AD 86 and probably ending by AD 143.[373]

Despite the Semitic context of these cults, the names of the benefactors that emerge from the building inscriptions attest to a Hellenised milieu which included people who enjoyed the Roman *civitas*. Yet, one must be careful not to interpret the relatively homogenous onomastic pool of the sanctuary as evidence that this was established by Greek immigrants. For example, between AD 61-86 M. Claudius Aemilius and his brother (who may have carried a Semitic name), the sons of Zênas, figure as financers of a section of the *peribolos*.[374] The impression would suggest that we are in the presence of a family of Greek origins in which at least one component who had received Roman citizenship. Yet, the two sons of Zênas also stated their affiliation to a larger human group, the]*tinzênoi*, a tribe (*phyle*) or a clan (*genos*). The custom of writing one's own tribal affiliation is reminiscent of the Hawran, where nomads and semi-nomads who settled and sedentarised in the region maintained tribal allegiances (see above, section 2.2.1). Thus, the Hellenised outlook of the family of Zênas should not be taken at face value: as noted above, Semitic origin cannot be ruled out on purely onomastic grounds.

The building inscriptions of Sheikh Barakat also allow us to speculate on the economic conditions of the benefactors. Among the published texts alone, as many as seventeen financers can be identified. Our texts, which refer primarily to the construction of the *peribolos*,

[370] *AAES* III:124-5. See also commentary to *IGLS* II 465. On the cults see Clermont-Ganneau 1880-1897 II:35-6; 48. Teixidor 1979:84 (for Salamanes); Millar 1993:254-5. On the cult of *betyls* in the Near East see most recently Gaifman 2008 (esp. 55-6).
[371] Callot (pers. comm.).
[372] A description of the site may be found in *AAES* III:104-8. See also Callot & Marcillet-Jaubert 1984:187-92; Irvine Steinsapir 2005:47-9.
[373] The epigraphic record and the remains of the sanctuary are discussed in *AAES* III:104-12. For the inscriptions see:*IGLS* II 465-475. The upper chronological limit of AD 143 is based on an unpublished inscription referring to the completion of the porticoes of the *temenos* "at the expense of the god": Callot & Marcillet-Jaubert 1984:190; Callot 1997:737-8. Callot & Marcillet-Jaubert (1984:188 n. 12) also claimed the discovery of 34 new inscriptions, which remain unpublished.
[374] *IGLS* II 472. See comments in *AAES* III:120-1. :

occasionally contain indication of the size of the portion of wall built and the amount paid for it. The figures are in drachmae in all but one case (in which denarii are used, *IGLS* II 469) while the unit of measure used in the building of the *peribolos* appears to have been the Phoenician cubit (= 0.4125 m).[375] *IGLS* II 465 (AD 86), 468 (AD 109) and 469 (AD 120) were all found *in situ* in the southern wall of the *peribolos*. Their texts read as follows:[376]

> "To Zeus Madbachos and to Selamanes, ancestral gods, ex-voto: Diogenes son of Antiochos but by adoption son of Theophilos, his own brother, and Theophila, the so-called Eulabous(?), daughter of Theophilos, his wife, and Soseis his mother, and Theophilos and Soseis their children built and erected at their own expense in the northern part of the circuit for 704(?) dr. They built also in the southern part of the same circuit in length, from the east to the west, 7 cubits and in height 19 and 2/3 (?) cubits for 634+1/6+1/18 dr.; and both these sections by Neikanor son of Meniskos, the builder, for 1338 +1/6+1/18 dr.(?) In the year 135, Apellaios 19th (*IGLS* II 465)"

> "To Zeus Madbachos and to Selamanes, ancestral gods, ex-voto: Andrônikos son of Menandros built at his own expense...in length 5 cubits, in height 19 and 2/3 (?) cubits, for 524(?) dr.....Year 157, Audynaios 2nd (*IGLS* II 468)"

> "To Zeus Madbachos and to Selamanes, ancestral gods, Krateas son of Andrônikos, in fulfilment of his father's vow, at his own expense built for 1500 denarii in the year 168, Audynaios 21st (*IGLS* II 469)"

With ca. 36 m dividing the earliest from the latest text, these three dedications stand as clear evidence of the slow progression of the works: assuming that works were carried out progressively from east to west, only about one metre of masonry was laid every year. Progression, however, must not have been steady. It took almost twenty-three years to complete the ca. five metres separating *IGLS* II 465 and 468, while the thirty metres between the latter and *IGLS* II 469 were covered in only eleven years.

The acceleration of building works at the beginning of the second century was probably due to the growing number of benefactors, and it constitutes an indirect sign of a growing population and/or increasing average wealth. Indeed, the dedicants of *IGLS* II 465, 468-9 (i.e. the families of Diogenes, Menandros and Andrônikos) were responsible for only ca. 11 m of the 36-metre tract separating them and if we consider that the entire perimeter of the *peribolos*

[375] *AAES* III:107.
[376] All dates are by the era of Antioch (49/48 BC).

measured some 270 m in total the sheer number of people involved in its financing becomes immediately apparent. The amounts of cash paid out by the worshippers were relatively small in absolute terms, but significant for a rural context and ranged between 524 dr. and 1,986 dr.[377] These covered the costs for the erection of portions of the *peribolos* that ranged in size between ca. 16 m^2 and 63 m^2. When the thickness of the wall is taken into account (two parallel rows of 1-cubit-thick ashlars = 0.825 m), a cost of 2 dr. 2 ob. per $cubit^3$ (ca. 175 kg) or 38 dr. per metric ton results.[378] If the price per metric ton remained unchanged between the beginning and the end of construction, the whole of the southern wall would have cost ca. 17,300 dr., an important but by no means disproportionate sum considering that it had to cover the costs for quarrying some 455 tons of limestone and the subsequent building costs. Comparative evidence for the wages of quarrymen and stone-cutters in Egypt (1^{st}-2^{nd} c. AD) suggests that with this sum, a full-time workforce of ten quarrymen could be hired for between one and three years.[379] The fact that construction stretched over more than three decades attests to the limited economic capabilities of the benefactors. Inscriptions such as *IGLS* II 465-6, where three generations of dedicants are named, suggest that these benefactions were often the result of long-term economic efforts on the part of the families involved. The construction of the *peribolos* of Sheikh Barakat, therefore, was the result of the accumulation of a great number of medium-to-small donations, which – until at least AD 120 - were due to the initiative of individual families bound by generations to the cult of Zeus Madbachos and Selamanes.

Further information on the origin and standing of the benefactors of the high-place sanctuaries of the massif comes from Burj Baqirha. As for Sheikh Barakat, the temple built on the top of the jebel Barisha (at 558 m asl) was dedicated to "Zeus the altar", though in this case the Semitic root is dropped in favour of the Greek equivalent *Bômos*.[380] Surrounded by a large *temenos*, the quadristyle prostyle temple was built on a high podium.[381] The building was

[377] These figures are based on the calculations and integrations of Prentice in *AAES* III nos. 100-108. In particular, I accept his view that the standard cost of one $cubit^2$ = 5 dr. 2 ob. The calculations that follow are based on this figure.
[378] Limestone has a specific gravity of 2. 5.
[379] Wages of quarrymen at Mons Claudianus between AD 136-46 appear to have been of 47 dr. /month or 564 dr. /year (Cuvigny 1996). Daily wages could be significantly higher, with stone-cutters (λαξοί) asking 4 dr. /day in second-century Oxyrhynchos (P. Oxy III 498 l. 38). For the differences between daily and monthly wages see Drexhage 1991:412-29. There is no way of knowing what kind of arrangement was in place for the payment of builders in the Limestone Massif. Nor is it easy to reconstruct the composition of building teams in the region. Studies of stone-cutting techniques in the Limestone Massif (e. g. Charpentier 2005-2006) suggest a certain degree of specialisation. Inscriptions suggest that teams were led by architects (ἀρχιτέκτονες) or, more commonly, by master masons (τεχνίται). Unskilled workers would have provided the bulk of the labour. I have taken Cuvigny's figure of 47 dr. /month as the upper limit for local wages of masons, using the daily salary of 4 dr. proposed by Prentice (*AAES* III:112) – which compares well with other Egyptian evidence (where monthly salaries averaged between 20-40 dr. in the first two centuries AD, see Drexhage 1991:425-28) – as the bottom limit.
[380] Technically, the sanctuary of Burj Bariqha was not built on the top of the mountain but slightly downhill. Despite this, it has been assigned to the category of the high-places:Tate 1992:289. For the cult see above, pp. 89-90.
[381] *AAES* III:66-9; Callot & Marcillet-Jaubert 1984:195-8; Irvine Steinsapir 2005:50-1.

erected between AD 124 and AD 162, but the material evidence, as noted above, suggests that occupation began as early as the late-second century BC.[382]

Building activity is largely documented through inscriptions found in the area of the temple. The earliest building inscription (Jarry 1967 n.39) is dated to AD 124 and commemorates the completion of some kind of structure (perhaps part of the *peribolos*) by a Herod son of Apollophanes. Other structures were added between AD 161 and AD 162/3. *IGLS* II 569 commemorates the building of a gate in the *peribolos* on the initiative of Apollonios, Apollophanes and Chalbion sons of Marion from the *epoikion Meithou*. The second inscription relates to the building of the columns of the temple, which were paid for by Alexander son of Antonius of the *epoikion Bêsikou*.[383]

There is reason to believe that these sites were located in the immediate vicinity of the sanctuary. The seven ruined villages of Babutta, Baqirha, Khirbet Hadiye, Basmishli, Bamuqqa, Babisqa and Khirbet Khatib are all found within a 5 km radius of Burj Baqirha. Herod son of Apollophanes and Alexander son of Antonius probably lived in Babisqa, which Gatier identified with the *epoikion Bêsikou* and the *chôrion Bizikôn* of a sixth-century inscription found in the vicinity of this village.[384] The village of origin of Herod is not specified in the inscription, but this name – rather uncommon in the region – also crops up, together with that of an Antonius, on the architrave of a distyle funerary monument found at Babisqa.[385] There is a strong possibility that Antonius father of Alexander of Babisqa and Herod son of Apollophanes were buried together in this village.[386] As for the three brothers who resided in the *epoikion Meithou*, a funerary stele found near a rock-cut tomb in Khirbet Hadiye contains the names of Apollonios and Apollophanes, two of the three benefactors named on the gateway of the *peribolos* of Burj Baqirha. This makes it likely that Khirbet Hadiye should be identified with the *epoikion Meithou.*[387]

Herod, Alexander, Apollonios, Apollophanes and Chalbion, therefore, were locals who resided in nearby settlements characterised as *epoikia*. The term *epoikion* is normally found in opposition to *komê* to indicate a settlement that was smaller than a village and owned by an individual landowner. At this stage, however, it is likely that the *epoikia* mentioned at Burj Baqirha were nothing but farmsteads, of which the benefactors of the temple are likely to have been the owners and possible descendants of the eponymous ancestors after whom these settlements had been named.[388] Surveys conducted in the 1990s in the area of Burj Baqirha have

[382] The relevant inscriptions are:Jarry 1967 n. 39 (AD 124, with corrections by Gatier mentioned in Callot 1997:741 n. 17); *IGLS* II 569 (AD 161); Jarry 1967 n. 40 (AD 162/3); *SEG* 20 356 (AD 238).
[383] Jarry 1967:163 n. 40 (with corrections in Callot & Gatier 1999:679).
[384] For the reading of *IGLS* II 530 (AD 588/9) and identification of the *chôrion Bizikôn* see Feissel 1991:296-7.
[385] *IGLS* II 556 (AD 143).
[386] For distyle funerary monuments and communal tombs see below.
[387] Jarry 1967:186-7 n. 113. For a different reading see Callot & Gatier 1999:681.
[388] On *epoikia* in northern Syria see Feissel 1991. For a discussion of *epokion* as a typology of settlement in Egypt see:Hohlwein 1949; Lewuillon-Blume1979; Pruneti 1981:9-12.

shown that all the villages surrounding the sanctuary housed only one imposing tomb of early-Roman date (thus contemporary to the building of the sanctuary), which may have belonged to the family of the owners of the *epoikion.*[389]

A more mixed milieu of benefactors is encountered at the hilltop sanctuary of Qal^{c}at Kalota, located at 560 m asl and dominating the jebel Sem^{c}an.[390] The sanctuary was dedicated to the cults of Zeus Seimos, Symbetylos and Leon.[391] We have seen earlier that excavation at Kalota yielded some of the earliest pottery found in the massif. Building presumably began in the first century, but the *peribolos* was later expanded to the north to make space for two temples. The larger *peribolos* was probably complete by AD 135, when an inscription was put up on the left doorjamb of a door, which opened on its north side.[392] The dedicants were C.Marius Silvanus and his son Fronton, who could well have been foreigners. The same might be true for a Valerius, who might be related to a C.Valerius L.f. Celer known at Brad in the early-second century.[393] What these individuals paid for was far from substantial since they were almost certainly responsible only for the building of the two doorjambs. Alongside these people, we encounter a benefactor of Semitic origin: Bar[…] son of Morsos contributed a column (or a small cylindrical base) as an ex-voto.[394] The largest financers of the sanctuary were the Hellenised couple Ptolemaios and Tryphera, who claimed credit for having built the *naos* (no doubt that of the main two deities, Seimos and Symbetylos) and for commissioning a golden statue (χρυσοῦν ξόανον).[395] Like with the benefactors of Burj Baqirha, Bar[…]son of Morsos and this couple probably resided nearby, namely in the village of Kafr Nabo located less than 3 km north-west of the sanctuary.[396]

We should conclude the analysis of the hilltop sanctuaries and the groups that contributed to their construction by analysing the evidence concerning temple organisation and holdings. The existence of a local clergy is firmly suggested by inscriptions referring to priests and great priests. The earliest mention of a ἱερεὺς comes from ^{c}Amud Sermada, a small town 1 km north-west of Sermada in the plain of Dana. An inscription engraved on the base of an imposing distyle funerary monument (which still stands in the town) by the priest Manlaios son of Antas in AD 111/2.[397] The mention of a priest so close to Burj Mahdum may substantiate Kreuz's theory that this place hosted a sanctuary. Another ἱερεὺς is attested at Schnaan in an undated

[389] Indeed, Jarry 1967 n. 113 was engraved on a stele found in the vicinity of Kh. Hadiye's only Roman tomb. See Callot & Gatier 1999:679-81. For family and communal tombs see discussion below.
[390] The site was first surveyed by the Princeton expedition:*PPUAES* IIB:318-22.
[391] Commentators diverge on the interpretation of these cults. See especially *PPUAES* IIIB:184-5; Trombley 1993-4 II:258ff. ; Gatier 1997:761-2.
[392] Gatier, *Villages*:761 n. A.
[393] Gatier, *Villages*:761 n. B (Valerius at Qal^{c}at Kalota); Tchalenko III n. 1 (Valerius Celer at Brad).
[394] Gatier, *Villages*:764 n. C.
[395] *IGLS* II 383 (dedication of the *naos*), with corrections in Gatier 1997:763.
[396] Bar[…] explicitly mentions to be an inhabitant of the κώμη Καπερναβου. That Ptolemaios and Tryphera could also have resided there is suggested by an inscription found at Kafr Nabo, possibly originally belonged to a tomb, which names them both: Jarry 1970 n. 27.
[397] *IGLS* II 520. For a description and list of the regions' distyle funerary monuments see Griesheimer 1997:185-6.

inscription found on the doorjamb of a structure built inside the *peribolos* of the sanctuary and defined by this same text as a *kellion* – possibly a banquet house.[398] But simple "priests" do not seem to have been the only members of the clergy at Schnaan. An unpublished inscription dated to AD 256 from the nearby village of Mghara (2.5 km west of Schnaan as the crow flies) recounts the career of the priest Aurelius Abdes Barathe who had been προφήτης, ἱερεὺς and ἀρχιερεύς of the "god of Arkesilaos". Except for Schnaan, no other sanctuaries are attested in this part of the jebel Zawiyé, a fact that makes it very likely that the "god of Arkesilaos" was in fact the deity worshipped in this sanctuary.[399] The epitaph of Abdes Barathe shows that, at least in this part of the massif, the ancestral cults had developed a hierarchical clergy, with at least three different degrees of priesthood (*prophêtês*, *hiereus* and *archiereus*).[400] A hierarchical organisation may have also been in place in al-Hosn (jebel Doueili), where an ἀρχιερεύς is attested.[401]

Priests, however, are never recorded as being responsible for any kind of official building activity. This task fell on the ἐπιμεληταί, task-appointed "care-takers" or "overseers" selected from the upper echelons of the local milieu and active in much of the Levantine countryside in matters concerning the building and administration of temples. These magistrates appear for the first time at Srir, where an inscription dated to AD 116 recalls the completion of the *naos* through the intercession of at least two persons who are said to be Δίος Τουρ Βαράχου ταγέντες [...] καὶ τῷ ἔργῳ ἐπιμελεθέντες, the "appointed of Zeus Tourbarachos and overseers of the work".[402] Another important text involving *epimelêtai* comes from Kafr Nabo and was found on the lintel of a chamber which housed two oil-presses. The text reads as follows:

> "To Seimos and Symbetylos and Leon, ancestral gods, the oil-press with all its equipment, from the revenues of the gods, through Nomerios and Beriôn and Dareios and Klaudios the *evocatus*, *epimelêtai* and Antonios and Sopatros, *leukourgoi*, may Dometianos the builder be remembered, and Gaios and Seleukos, builders, in the year 272, month Peritios 15th, was finished and dedicated. He who wrote this was Theoteknos" (AD 224).[403]

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[398] Griesheimer 1999:694-5.
[399] Griesheimer (1999:704-5) has rightly observed that the formula "the god of" followed by the name of an eponymous worshipper – sometimes the founder of the first temple – was used in the Levant to refer to a deity without naming it.
[400] Griesheimer 1999:704.
[401] *IGLS* II 652 (AD 367/8). This late text commemorates the extension of the sanctuary in the wake of the pagan revival promoted by Julian. On this see Trombley 2003:60-1.
[402] *IGLS* II 488 with corrections in Jarry 1967:165. The use of the participle of ἐπιμελέομαι clearly substitutes the more common ἐπιμεληταί.
[403] *IGLS* II 376. Until recently, this inscription, together with the remains of large column drums in the vicinity of the sixth-century basilica had led most scholars to think that the cult of Seimos, Symbetylos and Leon had been practiced in Kafr Nabo. See for example, Prentice (*PPUAES* IIIB:181; 185), Tchalenko (1953-8 I:14; 398) and Tate (1992:287-9). Recent work done on Qal^{c}at Kalota has convincingly shown that the sanctuary was located there and that remains at Kafr Nabo should be understood as part of large funerary complex (Gatier 1997:758).

The oil press being built under the supervision of the four *epimelêtai* was built *ek tôn theôn prosodôn*, "from the revenue of the gods", suggesting that, by the early-third century at the latest, the sanctuary of Qal^{c}at Kalota disposed of an income of its own. We will return on this issue a bit later, for it is important to properly describe the role of *epimelêtai* in relation to the religious and social landscapes of the region.

The role of the *epimelêtai* was already outlined by McLean Harper in his magisterial article on village officials in the Syrian countryside. By citing inscriptions mostly from the Hawran, he noted that councils of *epimelêtai* (made up of two, four or even six members) often figured at the head of building projects financed with the revenues of a temple or village.[404] On Mt. Hermon, *epimelêtai* were exclusively associated with religious building and appear to have been the executive counterpart of the temple priests, disposing of an authority, an *archê* that gave them access to temple funds (e.g. *IGLS* XI 22 from Rakhleh, AD 253). Studying the prosopography of this region, Aliquot noted that, like for the local priesthoods, the office of *epimelêtês* tended to be assigned to the members of the leading families of the village communities. Given that these had also been the sponsors of the local temples, it is hardly surprising to find them involved in the management of temple funds.[405]

A similar interpretation may very well hold true for the Limestone Massif. Of the four *epimelêtai* at Kafr Nabo a certain Claudius bore the title of *evocatus*, a military rank just below that of centurion, and is likely to have been a prominent figure in the rural context of the region.[406] Little is known about the other three *epimelêtai*: the onomastic eclecticism mirrors that which is typical of the building sites of the hilltop sanctuaries described above.

Epimelêtai are also attested a few kilometres north of Kafr Nabo, at Brad, where a fragmentary inscription probably testified to the building of an altar.[407] This structure may have been connected to a village temple, whose existence is suggested by *spolia* as well as by the epitaph of the ἱερεύς …]chos, who built his family tomb at Brad in the mid-third century.[408]

In the territory of Apamea, an *epimelêtês* named Salmaios is attested at Huarte (j.Zawiyé), where he was apparently responsible for the erection of a cylindrical pillar.[409] This may have been an altar, similar in all respects to the one erected by Marcus Longinus, himself probably an *epimelêtes*, in AD 142/3 and found in the same area of the village.[410] Both altars were no doubt part of the furnishings of an underground *mithraeum*, where another seven altars

[404] McLean Harper 1928:130-2. An inscription from Qasr Hammara (*IGLS* VI 2986) has subsequently shown that up to 9 *epimelêtai* could be in office at the same time.
[405] Aliquot 2008:92-5.
[406] Regarding the evolution of *evocatio* from the Republican to the Imperial period see Fiebiger, *RE* VI 1 cols. 1145-52 (esp. 1151-2).
[407] Tchalenko III n. 3
[408] Jarry 1970a:192-3 (AD 250/1 & AD 252/3).
[409] ημυ΄, ἐπὶ Σα|λμαιου ἐπ|ιμελητοῦ ἐκτί|σθη ἐγείραν|τος ἐξ ἰ(δίων) πε|σσόν (AD 136/7. See *SEG* 37 1413 wrongly dates the text to AD 126/7).
[410] *SEG* 37 1414.

(one of which bearing again the name of Marcus Longinus) were recently discovered.[411] Salmaios personally funded the erection of his altar. This is unusual as, in the majority of cases, *epimelêtai* did not personally contribute with their own money to the building of which they were entrusted: the cash either came from the temple finances or from the coffers of the village. Perhaps in this case Salmaios had acted on his own initiative rather than in his capacity as an appointed "commissioner".

To sum up: the evidence raised thus far conjures up a picture of relative hierarchisation of religious life, with priests and arch-priests being supported, on matters of temple administration and financing, by a college of "commissioners" who were likely an expression of the leading local families. Like the settlements of Mt Hermon, it would appear that building activity for the local sanctuaries was the catalyst that enabled the proto-communities of the first and second century to gradually develop forms of communal action, opening the way to gradual village hierarchisation and further forms of social stratification (see section 4.2).

We must now return to the other implications of the Kafr Nabo inscription. By referring to temple finances, this text shows that, by the early third century, the sanctuary of Qal^{c}at Kalota enjoyed some sources of revenue and that these revenues were used to build the oil factory in a village ca. 3 km away from the temple site. This, in turn, suggests that the hilltop sanctuary owned land in Kafr Nabo. Unfortunately, we are left in the dark as to whether the sanctuary would have farmed its properties directly, through the toil of temple slaves (as it happened, for example, at the temple of Zeus Baetocaece at Hosn Suleiman) or whether plots were rented out to village tenants.[412] In the latter case, the oil factory would perhaps have become the means through which rent in kind was extracted. Indeed, despite the ruinous state of preservation of the oil factory, the sheer size of the niche for the anchorage of the two press beams (higher than 2 m) suggests that the two oil presses must have been capable of processing substantial olive yields.[413]

Temple revenues are also certain at Sheikh Barakat where an unpublished inscription (AD 143) refers to the building of porticos with the finances "of the god".[414] To this evidence, we should add the recent finding of a group of reliefs which may have been used as boundary stones marking off the territory of the sacred land owned by the sanctuaries. Such reliefs represent a reclined Herakles with a club and were found by the side of the routes leading to the

[411] Gawlikowski 2007:350. Gawlikowski regards Longinus as the man in charge of the cave of the *mithraeum* whilst Canivet (Canivet & Canivet 1971:94) saw in him a man of a certain social standing, someone who may have had an official role in the region of Huarte. However, the involvement of the *epimelêtês* Salmaios in the erection of a similar altar makes it likely that also Longinus should be regarded as an *epimelêtês*, perhaps himself a veteran who had settled in Huarte.
[412] The bibliography on the organisation of the temple of Zeus Baetocaece is immense. See especially Rigsby 1980; Baroni 1984; Virgilio 1987; Feissel 1992. Most recently: Dignas 2002:74-84; 156-67.
[413] The presses are numbered 4 and 5 in Callot's *Huileries* (1984:94).
[414] Callot & Marcillet-Jaubert 1984:190; Callot 1997:737-8

temples of Sheikh Barakat, Srir and Qal^{c}at Kalota.[415] Similar reliefs, representing lions, were found in the vicinity of the sanctuary of Schnaan.[416]

The iconographic similarity between all the reliefs and the identical placement at the border of the roads leading to the sanctuaries leave little doubt that they should be interpreted as boundary markers. What remains difficult to ascertain is what the territory lying within these boundaries was used for. Most of the land surrounding Srir is now barren and soil deposits are too shallow for intensive agriculture. However, traces of land divisions and modern olive orchards to the east of the sanctuary suggest a suitability for arboriculture that may have been put to use by the hilltop sanctuary. Terraces were also dug along the lower slopes of the hill of Qal^{c}at Kalota, suggesting agricultural exploitation. In the absence of sufficient dating material, however, it is impossible to know when this land was put to use. Indeed, Gatier has argued that the Herakles reliefs defined the boundaries of a sacred territory where neither building nor cultivation was allowed: only the de-sacralisation of the hilltop sanctuaries following the Christianisation of the region would have prompted agricultural exploitation of the temples' hinterland.[417]

Be this as it may, the perimeter enclosed by the Herakles reliefs would have represented only a portion of the temples' property: at Qal^{c}at Kalota, for example, the position of the reliefs configured a territory with a radius of ca. 300 m (i.e. some 28 ha) of which only a fraction (the lower slopes of the hill) could be cultivated.[418] Yet, the Kafr Nabo inscription proves that the sanctuary had assets in the nearby villages, too. It is reasonable to believe that this would have held true for the other sanctuaries of the Limestone Massif. How did these holdings originate? Some evidence suggests that they might have been bequeathed to the sanctuaries by the founders of the cults. For example, Ptolemaios and Tryphera of Kafr Nabo, who were no doubt among the earliest and most prominent benefactors of the cult of Seimos, Symbetylos and Leon at Qal^{c}at Kalota, may have left some of their properties to the sanctuary: a century later, the oil factory of the temple might have been built on these holdings.

These speculations find partial confirmation in the epigraphic evidence from the village of Me^{c}ez. With this village, we move to the second part of this section, which is dedicated to understanding how village communities developed and, more broadly, what social and economic structures prevailed during the early Roman period (1st-3rd c. AD).

By the mid-second century, when construction was well underway in Sheikh Barakat, Qala^{c}t Kalota and Srir, a great number of other settlements, far removed from these sanctuaries,

[415] Callot & Marcillet-Jaubert 1984:200-1. Gatier 1997:769.
[416] Griesheimer 1999:706 (Schnaan). Some of these reliefs were provided with inscriptions, e. g. the two reliefs of Srir:Jarry 1967 nos. 44 (AD 130); 45 (AD 131, with emendations in Callot & Marcillet-Jaubert 1984:201).
[417] Gatier 1997:769.
[418] The two Herakles reliefs were respectively found ca. 300 m on the road from the sanctuary to the village of Kalota and in a field 300 m south-east of the sanctuary. See Gatier 1997:769.

had been founded (Map 4.1). In most cases, such settlements were founded in proximity to or inside a large *doline*, which assured that tillable soil would be plentiful. This is the case of villages such as Kafr Mu and Shembasher in the jebel al-ᶜAla and Meᶜez and Kafr ᶜAruq in the jebel Barisha. The geology of the southern jebel Zawiyé, with narrow limestone ridges surrounded by large tracts of deep-soil valleys also fostered settlement since an early date, as the inscriptions and residual pottery from Huarte suggest. Of these settlements, the best known is the village of Meᶜez, situated at the southwestern edge of a circular *doline* some 1,600-metre wide in the eastern jebel Barisha (Fig. 3.4).

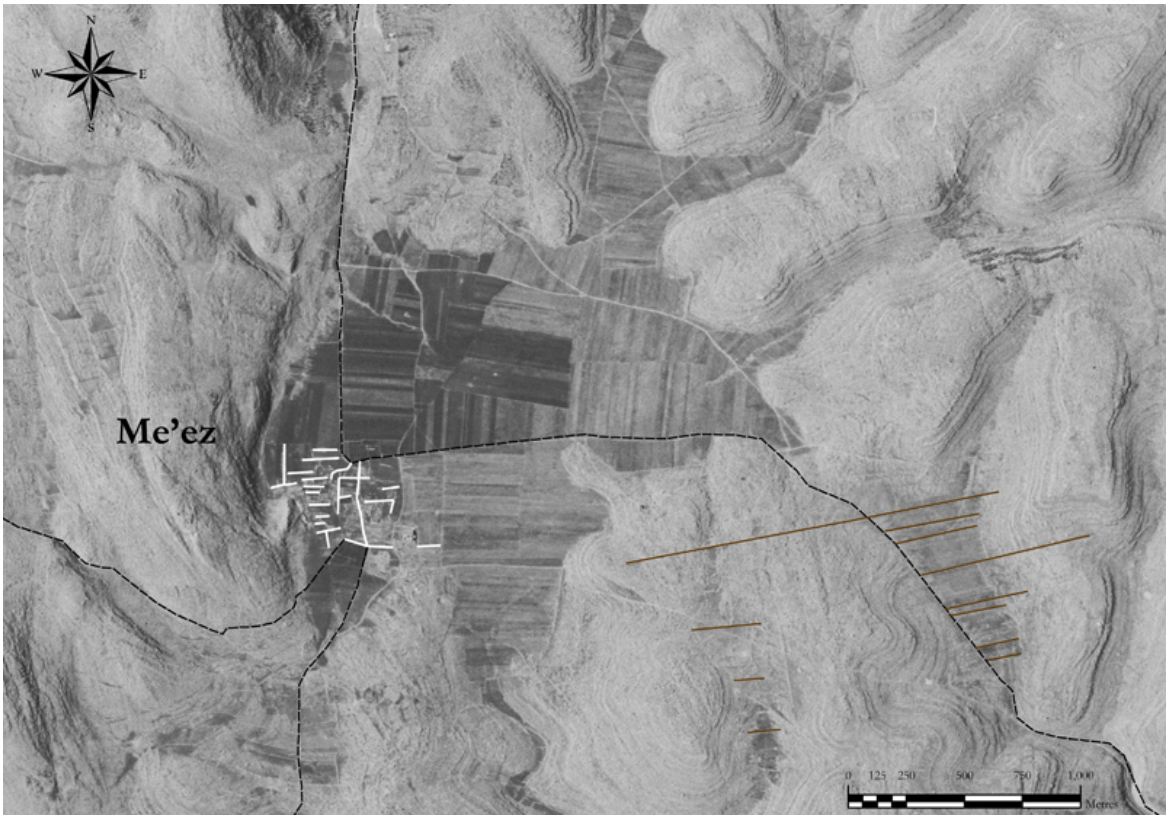

Fig.3.5 The village of Meᶜez with traces of regular street layouts and field patterns (Backdrop: Corona imagery, 31 Jul 1969 © Center for Advanced Spatial Technologies, University of Arkansas/U.S. Geological Survey)

First visited by the Jesuits Jullien and Soulerin in 1888, the village went unnoticed by the American expeditions led by Butler, but it received full treatment by Mattern and Tchalenko.[419] It has been observed that this was among the longest occupied sites of the Limestone Massif, displaying clear evidence of Islamic occupation, which must have reached it maximum extent in the thirteenth century (when the village was provided with two mosques) and continued at least

[419] Jullien 1892:581; 588-9; Mattern 1933:125-32. See now Bradfield 2010:389-404 (though his identification of the site with that of Seleucia ad Belum seems highly unlikely).

until the fifteenth century.[420] This is likely to have been due to the abundance of fertile soil, which to this day continues to be overwhelmingly cultivated with cereals.[421]

All commentators have noted that the central quarter of this settlement, which included a temple, an *andrôn*, and a large water reservoir was set within a regular street layout, a fact that suggests that at least this part of the village had been planned ahead of construction. Yet, as on the building sites of the hilltop sanctuaries, dated inscriptions attest to the relatively slow progression of construction: the first building to be completed was the *andrôn* (AD 129), followed by the temple of the local *tychê* (AD 157), which was further expanded at an unspecified time.[422] Information comes, as in most cases, from building inscriptions. The earliest inscription is that which records the completion of the gates and roofing of the *andrôn* by a certain Settia Secunda. The purpose of this type of building has been long debated. For Butler and Tchalenko, the *andrônes* were public buildings used for the gatherings of the village elders to deliberate on matters regarding the community.[423] This theory was sharply criticised by Tate, who reinterpreted most of Tchalenko's supposed *andrônes* as houses. The remaining ones were assimilated to the *andrônes* of Dura Europos and Palmyra, where inscriptions suggested that they had been used as banquet halls connected to the cult of a local deity.[424] This view has been recently upheld by Gatier, who emphasised – in the case of Me^{c}ez – the proximity of the *andrôn* to the temple built in 157 and the similarity of its plan with that of the *andrôn* of Dura.[425]

As for the temple, the most recent reading of the dedicatory inscription was given by Jarry (Jarry 1967 n.37) and reads as follows:

Μίκκαλος ὁ ἐπικα(λούμενος) Ζααρουγας Δομετείου ἔκτι|σεν ἐν ἰδίοις τὸν ναὸν τῇ τύχῃ τῆς κώμης, ἔτους εσ΄, Λῴου βκ.[426]

This inscription allows us to briefly return on the issue of temple holdings discussed above with regard to the sanctuary of Qal^{c}at Kalota and its possessions in the village of Kafr Nabo. The dedicatory inscription of Me^{c}ez contains, in fact, a rather surprising feature. Where we would expect an ἐκ τῶν ἰδίων, i.e. the standard expression indicating private funding of a

[420] Tchalenko 1953-8 I:280-4.
[421] As noted by Tchalenko (1953-8 I:280). When the Jesuits Jullien and Soulerin visited it in 1888, land was cultivated with tobacco and sorghum: Jullien 1892:589.
[422] The inscriptions are *IGLS* II 584 (with corrections in BE 2004 374); II 581 (with new readings in Jarry 1967 n. 37); *SEG* 32 1415.
[423] Tchalenko 1953-8 I:29-30; 280.
[424] Tate 1992:72-8. The *andrôn* of Dura was dedicated in AD 54, while that of Palmyra was completed at the beginning of the second century. See Hopkins *apud* Rostovtzeff 1934:113-6 n. 418 (Dura); CIS II 3917 (Palmyra).
[425] Gatier 2001:9-15. However, the dating of the inscriptions poses considerable problems. If the *andrôn* was used as the banquet hall of the temple, as Gatier would have it, it is surprising that the temple was only completed some twenty-eight years after the *andrôn*.
[426] The reading given here includes Jarry's corrections (Jarry 1967 n. 37).

building project, the Mikkalos inscription reads ἐν ἰδίοις. This would rather indicate that the temple of the *tyche* of Me'ez had been built on the landed property of the dedicant Mikkalos – a fact that led Mouterde to regard him as the owner of the entire village.[427] But this need not be the only possible explanation. It is very likely that the village communities of the Limestone Massif came to life by a gradual process of synoikism of separate family holdings, which belonged to the first settlers of the region. These holdings likely comprised both agricultural land and areas on which buildings were erected. On their holdings, the leading families of these proto-communities built not only houses for themselves, but also public buildings like those of Me^{c}ez. Mikkalos, therefore, had not only funded the building of the village *tyche*: he had also offered the land on which to build it. A similar case may be adumbrated by a funerary inscription from nearby Rbeita. Here, an Apollas son of Heliodoros left to his heirs an olive orchard and another property on which he had seemingly built an open court (*aulê*) directly connected to a temple (*naos*).[428] The inscriptions from Me^{c}ez and Rbeita suggest a close connection between private property and the building of some of the village cult sites. If it is somewhat unlikely that the hilltop sanctuaries were built on privately owned land, the process by which those sanctuaries acquired landed property was also probably one of successive donations.

Returning to Me^{c}ez, if the leading local families had a prominent role in the construction of public buildings, the very fact that the need was felt for an *andrôn* and a village temple to be built is symptomatic of a developing sense of communal belonging that gradually turned separate households into a united community. Evidence of this may be found in the dedicatory inscriptions of the *andrôn* and the temple, which both refer to Me^{c}ez as a κώμη, an autonomous village. These are the earliest references to a fully developed village in the epigraphic record of the Limestone Massif. The sense of belonging to a village community is further emphasised by an undated text which commemorated the building of the *pronaos* of the temple of the village *tyche*, and was dedicated to "the Good Fortune of the (village of) the Mogizenoi".[429]

The importance of this inscription rests on the fact that it shows that the village community itself, the κωμῆται, had wanted the building of the *pronaos*. The village was, therefore, the real commissioner of the building project and the assumption must be that, by the time this was completed, village coffers existed to pay for it. This represents a major step not only in the progression toward more united village communities, but also in the establishment of a first form of village governance: if village funds existed, the assumption must be that some structure was in place to manage them. The *pronaos* inscription confirms that this was the case, for the building project was completed through the agency of a group of people who style

[427] See commentary to *IGLS* II 581 ll. 1-2.
[428] Jarry 1982 n. 40 (I ll. 20-24). No archaeological evidence of this temple survives in Rbeita: perhaps Apollas' holding was located in another village. Callot & Gatier 1999:670.
[429] Tchalenko III nos. 26-7; Jarry 1982 n. 14.

themselves as "elders". The mention of *presbyteroi* at Me^{c}ez is a unicum for pre-Christian Syria and raises the question of what kind of responsibilities and powers they held. The wording of the inscription of the *pronaos* (διὰ πρεσβυτέρων) places the *presbyteroi* of Me^{c}ez in a position similar to that of the *epimelêtai* whom we have encountered as overseers and care-takers of building projects involving temple funds. Here, however, the *presbyteroi* were probably members of a local council of elders, similarly to the γέροντες found in later inscriptions.[430] At Me^{c}ez, we probably have the earliest attestation of that institution, namely a 'council of sheikhs' that emerges as a key player in the local village life in Late Antiquity.

The *presbyteroi* at Me^{c}ez and the *epimelêtai* at several sites in the region show that a local institutional framework was being established over the course of the second century. This may find further confirmation in yet another undated text from Me^{c}ez. In this case, the *Mogizenoi* as a community put up a honorary column for a certain Aurelius Trisenus Apollinarius τὸν διὰ πάσης πολειτίας, "who achieved all the magistracies".[431] It is unclear whether this individual was being praised for having fulfilled something similar to a local *cursus honorum* or whether he should be seen as a powerful outsider who had helped the community of Me^{c}ez in some unknown way. Whichever the case, this inscription clearly shows that the community of Me^{c}ez was capable of collective action even outside the realm of religious affairs.

The development of village communities did not undermine the role of the family or the enlarged clan, which remained the fundamental nuclei on which the society and economy of the massif were based. An insight into the structure of the local families may be gained through the funerary epigraphy of the second and third century. These texts, to which we will now turn, may be divided into three categories: those belonging to family mausolea, which comprised the burials of several generations of large familial groups all descending from an eponymous ancestor, a clan founder who had originally bought the land on which the tomb was built. In some cases, these tombs were accompanied by long epitaphs, put up by the founder, which contained very specific instructions addressed to the heirs of the deceased and regarding how the tombs should be treated and its occupants honoured. Other large, rock-hewn tombs appear to have been communal or perhaps meant for larger clans. Finally, other tombs and open-air sepulchra were built for individuals, couples or smaller nuclear families.

The first group of texts is best represented by an epitaph written on a sarcophagus found in the middle of the ruins of Kafr ^{c}Aruq (jeb. Barisha). The inscription, dated to AD 228, commemorates the burial of Marinos and his wife Kleopatra inside what must have been Marinos's family mausoleum. The rest of the text recalls the ancestry of Marinos and his blood

[430] At Huarte in the Limestone Massif :*SEG* 29 1592 (ca. AD 480).
[431] Jarry 1982 n. 13 with comments. Trisenus seems to be a *hapax*. According to Mouterde, it might have been a nickname from τρὶς ἕν or τρεῖς ἑνός, "three times one" or "three ones". See comments in *IGLS* II 582.

tie with Abreemis, "who erected the stele in the middle (of the mausoleum/burial site)".[432] Abreemis, possibly Marinos's great-great-grandmother, would have lived at the beginning of the first century AD, a period to which, as we have seen, we can attribute the shift to sedentary settlement in the region. As for the stele that she erected, this must have been something very similar to the στήλη of Rbeita (4 km south of Kafr ᶜAruq), which we have already mentioned in connection with temple buildings on private land. This stone contained the will of Apollas son of Heliodoros, who allowed only some members of his family to be buried in his large mausoleum and gave dispositions concerning the inheritance of his landholdings. There is no doubt that it was restrictions of this kind that led Marinos to recall, in his epitaph, his ancestors up to his great-grandfather as well as his kinship with the founder Abreemis. We shall return to such restrictions a little later.

Yet another text from Kafr ᶜAruq allows us to analyse the second group of epitaphs, which belonged to "communal" tombs. The following text, written inside a rock-cut tomb, is dated to AD 126:

> "Year 175, Loos 9th. Germanos son of Akthivos, Ariston son of Alexas, Antas son of Heras, Ariston son of Heras, Barsympsos son of Heras, Gaius son of Alexas, Apollas son of Malchion, Bernebous son of Resimachos all together built (this tomb) out of their own finances"[433]

Amongst the dedicants of this tomb we recognise five different familial nuclei: three sons of Heras, two sons of Alexas and three other individuals. The onomastics could not attest to a more mixed milieu, with Latin (Germanos), Greek (Akthivos, Ariston, Alexas, Antas, Heras, Apollas, Resimachos), Aramaic (Barsympsos and Barnebous) and Arabic (Malchion) names. It is difficult to say what bound these people together, but it seems almost certain that it was not economic hardship that prompted them to build a collective tomb. Let us take two more examples from Sitt ar-Rum (in the vicinity of Qatura, jebel Halaqa) and ᶜAmud Sermada (plain of Dana). The former (Fig. 3.6) is a distyle monument erected by Isidotos son of Ptolemaios in AD 152, the latter is a text engraved inside the vestibule of a rock-cut tomb and honouring the priest Manlaios (or Mannaios) son of Antas (AD 111/2) whom we have already encountered.[434] In the first case, the distyle monument is located on top of a large rock-hewn tomb with several *arcosolia*: overall, the tomb contained an impressive fifteen sarcophagi.[435]

[432] Tchalenko 1953-8 III n. 21a (=*SEG* 20 358).
[433] Jarry 1992 n. 8.
[434] Respectively *IGLS* II 438 and *IGLS* II 520.
[435] See description of the tomb in the commentary of *AAES* III:126-7.

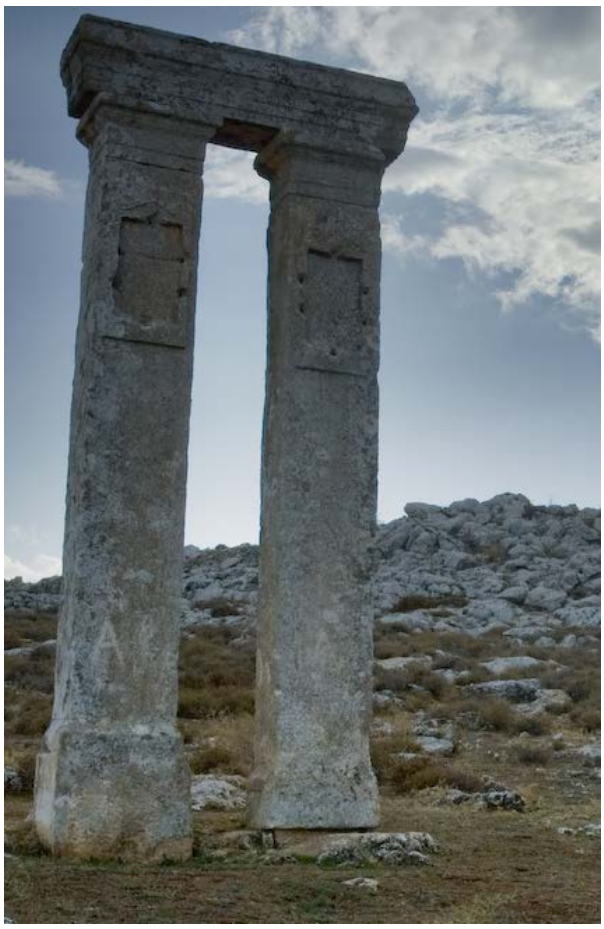

Fig. 3.6. The distyle monument of Sitt al-Rum looking south-east. The entrance to the hypogeum (not visible in the photograph) is located a few metres to the north of the monument (©Aleppean Photographers)

The rock-cut tomb pre-dated the distyle monument as the epitaph of Isidotos implies: in fact, Isidotos was buried "in his own sarcophagus, the third in the first arcosolium on the right as one enters", thus implicitly telling us that the first two sarcophagi of that *arcosolium* were already occupied by the time of his death.[436] Similarly, the priest Manlaios reserved some of the six sarcophagi of the hypogean tomb of ᶜAmud Sermada to himself and his family. In both cases, it is apparent that we have to do with affluent individuals: the family of Isidotos could afford to erect a distyle monument, while Manlaios, as a member of the religious hierarchy, would have belonged to the local élite. The fact that they preferred to be buried in a collective tomb rather than having their own rock-hewn chamber must therefore reflect a rational decision on their part, and one likely to be connected to clan or tribal affiliations, a reminder of the possible nomadic origin of settlement in the massif. Another possibility, however, is that family tombs were gradually turned into communal ones with the progressive alienation of parts of the sepulchres, which intervened on initiative of the tomb's heirs. Indeed, the legal codes make clear that only explicit prohibitions on the part of a tomb's founder could limit its heirs'

[436] κεί̣σεται δὲ ἐν | μάκρᾳ τρίτῃ <ἰ>δίᾳ τῆς ἐγ δεξιῶν ψαλίδος πρότης {πρώτησ} εἰσιόν<τι>

freedom of action.[437] A group of epitaphs from the massif suggests that this happened: these texts forbid the burial of *corpora aliena* inside family tombs, the re-use of sarcophagi and the alienation of the tomb or part of it. The prohibition of alienation (ἀπαλλοτριοῦν) occurs, for example, in a Latin/Greek bilingual found at Qatura (j.Halaqa) written in the vestibule of a rock-cut tomb built for T. Flavius Iulianus, a veteran of the legion VIII Augusta. The epitaph makes clear that the heirs and descendants of Iulianus were forbidden to *abalienare ullo modo id monumentum*/ἀπαλλοτριῶσαι κατ᾽ οὐδένα τρόπον τὸ αὐτὸ μνημεῖον.[438] Another chief concern of the inhabitants of the massif was to prevent the burial of *corpora aliena*, i.e. people whom the founders' epitaphs forbade from sharing the sepulchre. Such prohibition, in some cases, applied not only to outsiders, but also to members of the founder's family. For example, an epitaph found at Brad (j.Sem^{c}an) and dated to AD 250/1 forbids that the tomb be alienated, lent (κιχρήσκειν), given as a gift and sold, but also that anyone should be buried in its *arcosolia* bar the founder and his sons: the relatives beyond the first degree of kinship were therefore excluded from the sepulchre.[439]

Dispositions like those found in the inscriptions of the massif are known from other parts of the Roman world, and most notably from Asia Minor, where they make their appearance as early as the third century BC.[440] Illegal burials and alienation were punished with fines the amount of which was set by the testator and which were to be paid to a wide range of institutions. The juridical basis of the sepulchral fines remains unclear, though it is certain that they were legally binding.[441] Two aspects confirm this: first, in a few cases the inscriptions inform us that copies of the epitaphs had been deposited at the official archives, thus substantiating their legal value.[442] Second, other texts explicitly state that the violator of the tomb (be the violation an illegal burial, spoiling of the bones or alienation of the sepulchre) will be tried for τυμβωρυχία, which we may assume to have been prosecuted according to terms similar to those given in the titulus *de sepulchro violato* described in the Digest.[443] Among the latter texts is also an epitaph from the hinterland of Me^{c}ez dated to AD 193.[444] This epitaph, written on the four sides of a large tomb, prohibits the alienation of the sepulchre and of the land surrounding it (μεδενὶ ἐξεῖναι ἀπαλλοτριῶσαι) and the profanation of the burial. It is clear that the latter violation could be prosecuted with an action for τυμβωρυχία, which could also be brought against the heirs if they helped in the misdeed. The final part of the epitaph, albeit mutilated, appears to hint to the payment of a fifth (πέμπτον) of what must have been a sepulchral fine. Comparative evidence shows that the reward of the accuser (κατήγορος,

[437] So long as the heir did not alter the nature of the tomb as a *res religiosa*. de Visscher 1963:109-10.
[438] *IGLS* II 455.
[439] Jarry 1967 nos. 64-7. See also Jarry 1970a:192-3.
[440] E. g. Arkwright 1911.
[441] Rossi 1975:157; de Visscher 1963:120-1.
[442] For example, IGR IV 1452 (Smyrna); IGR IV 1275 (from Thyateira); *IGLS* I 171 (AD 157 from Kara Mughara in the Cyrrhestike). Rossi 1975:152-3.
[443] *D* 47,13,3.
[444] Jarry 1982 n. 22.

ἔκδικος, ἐκδικήσας) was often reckoned as a percentage of the fine for the violation of the sepulchre: in most cases, the part of the accuser was a third or a fourth of the total, though 1/5 must have been the rule in the massif as a text from ᶜAin es-Sokhneh (j. Wastani) clearly shows.[445] This epitaph, which dates from AD 131/2, prohibited the burial of other bodies (μηδένα ἕτερον τεθῆναι) and the alienation of the sepulchre and made the violator liable to pay a fine of 3,000 denarii to the *fiscus*, though 1/5 was devolved to either the person who had brought up the charges or the prosecutor.[446] Yet another sepulchral epitaph was found in Kuaro, a village by the eastern foothill of the jebel Wastani; here, the five owners of the tomb prohibited that it be mortgaged (ὑποτίθημι), sold (πωλέω) or partaken (κοινόω) and set a fine of 2,000 denarii to be paid to the ἱερωτατον ταμεῖον for the violation of such dispositions.[447]

Although they make up only a minor percentage of funerary inscriptions (ca. 6%), the epitaphs containing dispositions against alienation and illegal burial shed light on an interesting aspect of the social organisation of the area in the first three centuries AD.[448] While it would perhaps be unwise to argue that the absence of precise dispositions in other funerary inscriptions means that they could always be alienated, it is apparent that such must have been the case for many of the "communal" tombs discussed above. Commerce of parts of tombs must have been a quite profitable activity in this region as well as elsewhere: the inscription of priest Manlaios of ᶜAmud Sermada, for example, implies that he enjoyed the property of a "part" of the rock-hewn tomb in which he was buried – a sign that the tomb had been partitioned among different owners or heirs. This is confirmed by an undated text from the area of 'Anzeran (j.ᶜAla) which attributes two parts (δύο μέρη) of a rock-cut tomb to Marun son of Lucius whilst a final third was the property of an Antiochus.[449]

The preoccupation, in the second and third centuries, with preventing the sale and profanation of tombs is likely to be an indicator of demographic and economic trends which remain, for this period, otherwise difficult to explore. A period of demographic growth in the second century, confirmed both by the massif's epigraphic record and by research in the nearby Amuq valley would have led to an increase in the demand for burial sites, whilst the availability of "second-hand" tombs would have certainly appealed to a vast majority of the inhabitants, whose economic conditions remained fairly modest.

Insight into the economic capabilities of the earliest settlers of the massif is difficult to gain owing to the scarcity of evidence. A rare exception is that of the already mentioned

[445] Rewards of a third: e. g. MAMA VIII nos. 553-5. A reward of a fifth is attested, alongside the examples of Me'ez and 'Ain es-Sokhneh, at Telmessos (Lycia): TAM II 85.
[446] Uncertainty is due to the text lacking its top and right-hand edge. Further, the reading which I have provided remains incomplete due to the poor quality of the only published photograph of the epitaph (Peña *et al.* , *Wastani*:198 n. 4).
[447] *IGLS* II 661. Opinions vary on the meaning of ἱερωτατον ταμεῖον. Some scholars have translated it as "temple treasury". See Scialoja 1933; Parrot 1939; de Visscher 1963. L. Robert, followed by Rossi, has instead argued that it be likened to the φίσκον: see Robert 1955:172; Rossi 1975:137.
[448] 7 out of 114 dated (or dateable) funerary inscriptions (excluding multiple texts for the same tomb).
[449] *IGLS* II 647.

funerary stele from Rbeita, which reports part of the will of Apollas son of Heliodoros concerning the use of his tomb and the inheritance of his land holdings. These latter were to be inherited by his father Heliodoros.[450] Such land is described as "the land of 32 *tomai* of olive (trees) in which the tomb (is located) […] and the untilled (land) with the same *tomê* on which I built everything with my resources".[451] The reading of this text rests on the interpretation of the word *tomê.* In arboriculture, the term is frequently used with the meaning of "pruning", which does not seem to be appropriate in this case.[452] More broadly, however, the term indicates a "cutting" and was sometimes employed to refer to tree stumps after the cutting away of the foliage. In the sepulchral text from Rbeita, the word would have been used to indicate the number of olive tree stumps. Individual olive shoots, the agronomists tell us, had to be planted in well-spaced holes (*scrobes* in Latin or *bothroi* in Greek) so that the trees may be allowed to grow unhindered. For Columella the *arbuscula* were placed 60 feet (ca. 18 m) apart in length, while rows (*ordines*) of olive trees had to be placed 30-40 feet (ca. 9-12 m) apart.[453] The distinction between latitudinal and longitudinal interval is not found in the other agronomists. Cato suggested a generic interval between trees of 25 or 30 feet; Pliny cites Mago's suggested intervals of 45 and 75 feet; finally the *Geoponika* suggest a generic interval between *bothroi* of 50 cubits (ca. 30 m).[454] All authors remark that such intervals could diminish considerably where the olive orchard was not subject to inter-cultivation (the practice of sowing cereals or other crops between the rows of trees). Indeed, according to a report submitted to the House of Commons in 1911, olive trees in Syria were regularly planted no more than 6-7 m apart.[455]

Let us return to Apollas' orchard. If the *tomai* of the inscription correspond to the individual stumps of the trees, as it seems likely, we may be able to estimate the size of this plot of land by applying the spacing suggested by the agronomists and ethnographic parallels to the 32 trees owned by Apollas. If we assume that the field was arranged in evenly-sized rows, it is likely that the orchard would have counted on four rows of eight olive trees each. Table 3.3 outlines the possible sizes of Apollas's olive orchard provided that it adhered to the criteria set by the agronomists:

[450] Or perhaps by his father and by a certain Ach, if this latter is to be regarded as a separate person instead as a Semitic nickname of Heliodoros. See above, note 428.
[451] τ[ὴν γ]αῖαν λβ' | τόμων ἐλέων | ἐν ᾗ τ[ὸ μν]ημεῖον | καὶ ἔσ[θ]αι τὴν | σὺν αὐτῇ τό|μῇ ἀν[ε]ιμένην | [ἐν ᾗ ἔσ]τησα τα πάντα | σὺν [τοὶσ] ἐμοῖς (Jarry 1982 n. 40). Jarry's translation is unsatisfactory; Trombley's (2003:63) is much better though the translation of σὺν αὐτῇ τόμῇ as "in accordance with the same measurement" remains doubtful.
[452] Theophrastus, *CP* 14. 2; Pausanias, 2. 38. 3; P. Lond. II 163(AD 88).
[453] Columella, *de arb.* 17. 3.
[454] Cato 6. 1; Pliny, *NH*, 17. 19. 92; *Geoponika*, 9. 6. 5.
[455] Weakley 1911:58.

Table 3.3. The size of Apollas' orchard

	Distance between trees	Distance between rows	Size of Apollas' orchard
Mago (apud Pliny)	45/75 feet	45/75 feet	ca. 0.4 ha (1.5 *iugera*) / 1 ha (ca. 4 *iugera*)
Columella	60 feet	30/40 feet	0.3 ha (1.2 *iugera*)/0.4 ha (1.5 *iugera*)
Cato	25/30 feet	25/30 feet	0.1 ha/0.15 ha (< 1 *iugum*)
Geoponika	50 cubits	50 cubits	2.88 ha (ca. 11 *iugera*)
Weakley 1911	6-7 m	6-7 m	0.12 ha (< *iugum*)

With an average 10-20 kg of olives harvested per tree, Apollas could count on a harvest of between 320 and 640 kg of fruit, sufficient for the subsistence needs of a family of 6-7, and allowing a small surplus in bumper years (though probably offset by lean years).[456] All scenarios suggest that Apollas disposed of only a very modest holding. It is true that Apollas owned some other land, which is defined as ἡ ανειμένη, the "untilled", but also, possibly, "the consecrated", on which Apollas states to have built "everything" with his means. This may be a reference to the open court (*aulê*) which Apollas had built around a *naos*, possibly the temple of that ancestral god Helios to whom Apollas had offered sacrifices.[457]

In view of his important building activity, Apollas must have been among the members of the local élite. His family's mausoleum included a sepulchral altar, several high-quality reliefs and even large-size sculptures of seated figures taking part in a funerary banquet.[458] The back of one of the two *stelai* bore a relief probably representing Apollas and his wife Tryphera; while the latter is depicted in a style that finds many parallels in the funerary architecture of the Hellenised élites of northern Syria (e.g. at Zeugma, Hierapolis, Beroia etc.), Apollas might have been a soldier, perhaps a *lanciarius*: he seems to be wearing a *paludamentum* and holds two spiky poles that might have been javelins.[459]

The evidence is thus seemingly contradictory: on the one hand, Apollas' building activity and the abundant reliefs of his mausoleum suggest a rather affluent condition; on the other hand if, as the stele would suggest, his possessions only included an olive orchard and the ανειμένη γῆ, his economic conditions would have been modest at best.

We may thus go back to the building sites of the hilltop sanctuaries and their slow progression: in conclusion, the evidence suggests that many prominent families inhabiting the countryside were, in the majority of cases (with few notable exceptions, e.g. Ptolemaios and

[456] The data for oil production is drawn from Table 4. 4 below.
[457] Jarry 1982 n. 40 (I ll. 20-24). No archaeological evidence of this temple survives in Rbeita. Callot & Gatier 1999:670. For temples built on private land see above, page 102ff.
[458] Jarry 1982 Pl. 6. This seated group mirrors closely the better composition of Frikya. See Griesheimer 1997 fig. 33. On the tomb of Frikya, which belonged to the family of an Abedrapsas, see below.
[459] Parallels for the depiction of Apollas are actually quite rare to come by. Representations of *lanciarii* of the II Parthica stationed at Apamea differed quite considerably. A closer parallel is found in Hellenistic funerary stelai from Byzantium, e. g. Firatli & Robert 1964:Pl. 67 n. 214; Pl 68 n. 220.

Tryphera of Qal^{c}at Kalota or Mikkalos of Me^{c}ez), no more than middling owners who enjoyed moderate surpluses, part of which was invested in public (mostly religious) buildings. Regardless of their ethnic origin, which we have seen to be problematic, these people displayed a clearly Hellenised outlook in their self-representation (as confirmed by the style of the many funerary reliefs that dot the region). Yet, the society that gradually emerges in the second century AD has also local connotations: like on Mt. Hermon, the religious hierarchy that emerges from the inscriptions of the Limestone Massif emanates from a Semitic milieu, as do the first forms of village organisation.[460]

This mixture of local elements and Hellenisation seems to have been achieved through an interplay of connectivity and reciprocal influences rather than by large-scale settlement of new ethnic groups alongside the indigenous ones. We have noted above that theories that favour immigration on onomastic grounds should be rejected. Another argument used in favour of a theory of settlement development as due to exogenous factors is that based on the study of field patterns.

Despite the appearance in 1934 of Sauvaget's pioneering study of the cadastre of Laodicea, the study of field patterns in Syria was only begun in the late 1980s and still remains at an initial stage for what concerns rural cadastres. While the issue of a Hellenistic origin for the cadastres of the main cities of Syria remains hotly debated, more recent research has led to the identification of urban and rural centuriations based on the classical Roman module of 15*15 *actus*.[461] M. Abdulkarim has verified this module in the city and hinterland of Homs, while J.Leblanc and J.-P. Vallat have argued that a same module applied to the territories of Qanawat, Suweyda and ^{c}Atil in the Hawran.[462] The dense network of field patterns of the Limestone Massif was first revealed by the aerial photographs published by Mattern, but it was Tchalenko who first described them and attempted to date them.[463] These are characterised by rectilinear walls often less than 30 cm high made up of two ranges of unfinished blocks of large size. Modern boundary walls, instead, average ca. 1 m in height and may be recognised by the smaller size of the blocks of which they are built as well as by a more uneven trace.[464] As Tchalenko and his successors noted, aerial photographs and remote sensing often make the recognition of these patterns possible where field walking would fail.[465] This data allows us to recognise traces of land division in some parts of the jebel Sem^{c}an, in the southern jebel Halaqa and central jebel Zawiyé. There seem to have been several phases of cadastration, as layouts with different orientations juxtapose and sometimes overlap in certain areas of the massif. According to Tate, an orthogonal layout of NS/EW axes prevailed in the northern chains, while

[460] For Mt Hermon see again Aliquot (2008:92).
[461] Sauvaget 1934; Dodinet *et al.* 1990; Dodinet *et al.* 1994.
[462] On Homs see:Abudlkarim 2002-3; Abdulkarim & Olesti Vila 2007. On cadastrations in the Hawran, see section 2. 2. 1 above.
[463] Mattern 1933:Pl. 2, 6, 8,13. Tchalenko 1953-8 I:131-2.
[464] Tate 1997:60; Abdulkarim 2002-3:265-8.
[465] Tchalenko 1953-8 I:132; Tate 1994; *Syrie du Nord* 1998:24.

the cadastration of the jebel Zawiyé presents more complex patterns whereby orthogonal units are surrounded by polygonal parcels. Moreover, in the territory to the north-west of Ma^{c}aret en-No^{c}man a NS/EW layout coexists with another one which has a NW/SW orientation. In the region between Shinsharah and al-Bara, Tate also recognised the overlapping of elements of a NS/EW layout with those of a NE-SW/SE-NW grid.[466]

Although debate on the dating of these field layouts is ongoing, commentators agree on attributing them to the imperial authority.[467] For Tate, field patterns were laid out after the Romans expropriated the local peasantry to settle veterans in the region.[468] As for the methodology used, Tate observed that the prevalence of east-west axes suggests a configuration of *strigas et scamna* (a procedure well described by the gromatic writers), but with a metrology that was foreign to the Roman tradition. In the hinterland of Shinsharah, Tate recorded a module of 1100 m, a fact that may indicate that the unit used was the Babylonian cubit of 55 cm (thus corresponding to a module of 2,000 cubits).[469]

These considerations concerning metrology, if confirmed by further fieldwork, would put into serious question the Roman genesis of this landscape and add yet more evidence to the argument for the local roots of agricultural development in the region. It should also be noted that, if nobody can deny the existence of regular field patterns in several parts of the region, each operation of cadastration appears to have involved only small regions. To show this, I have selected two examples taken from the eastern jebel Sem^{c}an, and the eastern jebel Zawiyé (Figs. 3.7-8). The first case is perhaps the one that most closely would suggest imperial intervention: it comprises ca. 38 km^2 of countryside that, from the hills of the eastern jebel Sem^{c}an gradually slopes toward the plain of Chalcis. Traces of an orthogonal layout, perhaps a centuriation that interested the plain are also found along the easternmost slopes of the jebel (an east-west axis can be followed over more than 8 km from south of Zreiqat in the jebel to the east of Ibbin in the plain). As one progresses into the mountain, regular field patterns continue to be encountered, but these latter bear little affinity with the organisation of the landscape in the plains: instead of an orthogonal pattern, what we find are sets of parallel strips of land, sometimes oriented east-west, other times north-south, which appear to have been occasionally enclosed by rectangular or polygonal "quarters" averaging 1 km^2 or less. While some of the strips may appear to be oriented in keeping with the 'centuriation' of the plain, others were laid out at completely different angles: orientation seems to have been determined by micro-local necessities (such as the inclination of the slopes) rather than by the rules of a unified *groma*. This becomes all the more apparent when we look at Fig. 3.8, which displays traces of cadastration in the territories of the ancient villages of Ruweiha and Geradeh. Here, too, the

[466] Tate 1992:235.
[467] Tchalenko (Tchalenko 1953-8 I:131-2) associated the boundary markers of the Tetrarchic period found in the jebel Sem^{c}an with the operations of land division. Tate (1992:238) argued for a higher dating, probably to be set in the first or second century AD.
[468] Tate 1997:61.
[469] Tate 1994:451 fig. 6b.

regular layout is made up of a range of smaller agricultural quarters composed of parallel narrow strips that may be as narrow as 10 metres. To the north-west of these layouts, we encounter polygonal fields, which appear to have been the result of individual works of land clearance.

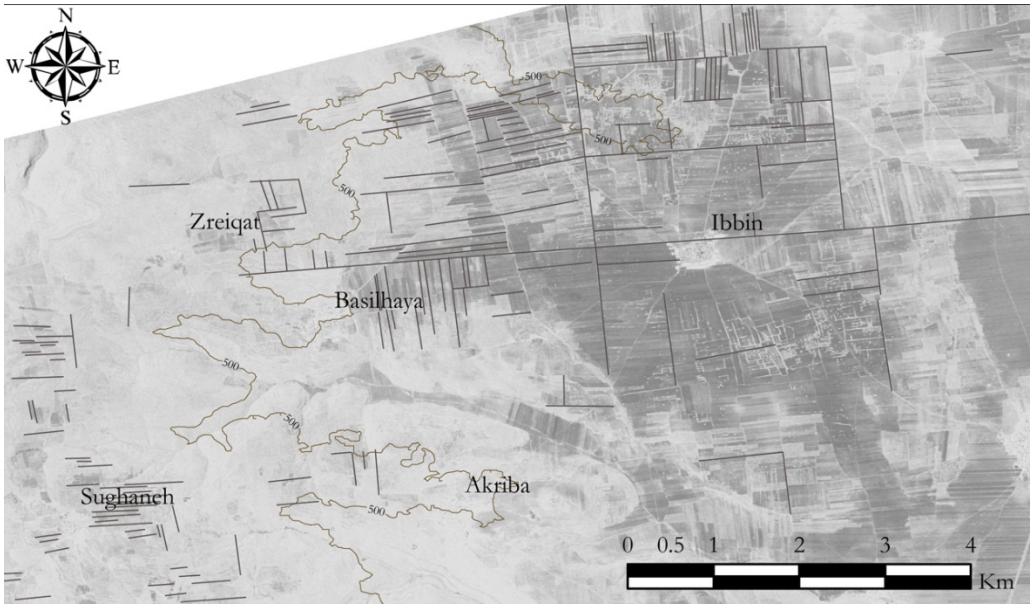

Fig.3.7.Field patterns between Sughaneh and Ibbin, north-eastern j.Sem^{c}an. (Backdrop: Corona imagery, 31 Jul 1969 © Center for Advanced Spatial Technologies, University of Arkansas/U.S. Geological Survey)

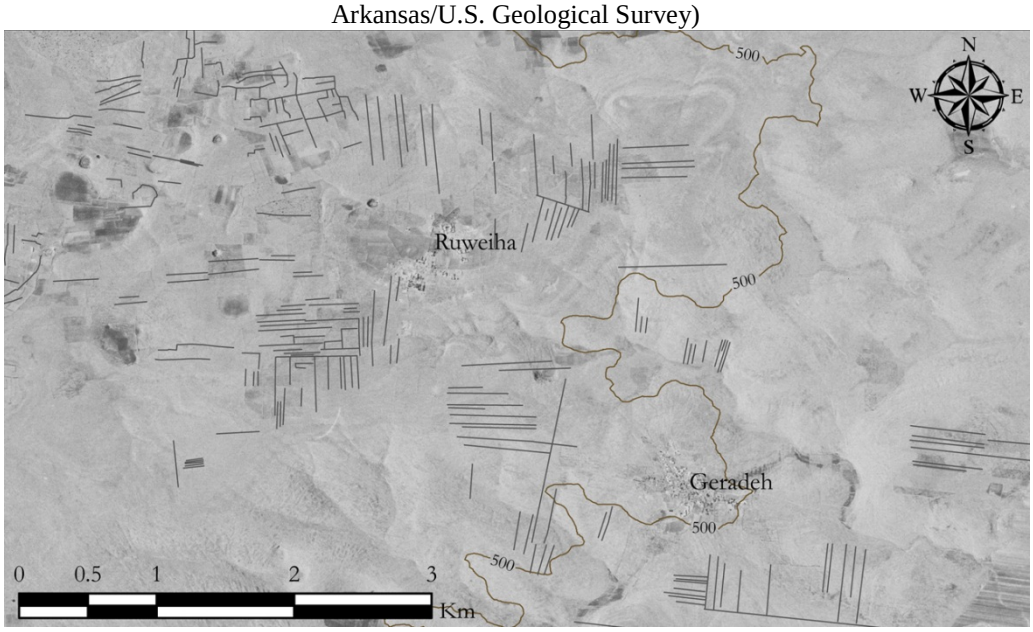

Fig.3.8. Field patterns between Ruweiha and Geradeh, north-eastern j.Zawiyé. (Backdrop: Corona imagery, 31 Jul 1969 © Center for Advanced Spatial Technologies, University of Arkansas/U.S. Geological Survey)

This peculiar process of land division is reminiscent of the *musha^{c}*, a traditional system of land holding and cultivation that was widespread in Syria until the mid-twentieth century.[470] In modern *musha^{c}* villages, the land surrounding the settlement was initially divided in quarters (Fig.3.9), which were then split into plots assigned by the village authorities (most often the village elders) to individual families. These plots were designed as long and narrow strips of land ('parcellaire en lanière'), a shape that made it possible for each plot of a quarter to be accessed from the same road or beaten track without having to cross other fields. All decisions concerning the management of the *musha^{c}* were made by the village elders, who periodically organised the redistribution of the fields, decided the times for sowing and harvest and selected which quarters were to be left as fallow. Although best suited to the plains and valleys, the *musha^{c}* is likely to have found application also on the plateaus of the basalt jebels of central Syria.[471] What is sure is that the shape of the fields and the continuous redistribution made this type of landholding only suitable for grain cultivation: any longer-term form of investment would have been made unprofitable by the frequent reshuffling of patterns of landholding. However, studies have shown that the *musha^{c}* tended to stabilise after a certain period of time: once parcels started to be perpetually held by families, private property led owners to reduce the length of fields in favour of shorter but wider parcels that made arboriculture feasible. (Fig.3.10) A modified *musha^{c}* landscape in which the majority of strips had been turned into smaller rectangular orchards for arboriculture may explain some, if not the majority of cadastration layouts in the Limestone Massif.[472] Rather than imperial sponsored cadastration across the entire region, we would thus be in the presence of a multitude of smaller-scale cadastres inspired by village communities.[473] The suitability of *musha^{c}* holdings to grain lands may also explain why the characteristic 'parcellaire en lanière' is absent in those parts of the region where grain cultivation was less feasible, namely in the jebels Wastani, al-^{c}Ala and Barisha. These sectors of the Limestone Massif are instead characterised by fields of varying shape like those encountered in the region of Si^{c} in the Hawran (section 2.3), which likely reflect individual operations of land clearance and private ownership. Like in early-twentieth century Syria, this latter kind of landholding was often associated with arboriculture, a fact to which testify the numerous oil and wine presses found in these parts of the Limestone Massif.

[470] Latron 1936:184-200; Weulersse 1946: 98-108.
[471] Rivoal 2010:714.
[472] A similar conclusion was also reached by Rivoal (2010:899ff.) with regard to the basalt jebels (Hass, Shbaiyt and al-^{c}Ala) of central Syria.
[473] The parallel between *musha^{c}* holdings and ancient field patterns has also been made by N. Doukellis with regard to the plain of Dana; see Doukellis 1995:98-100.

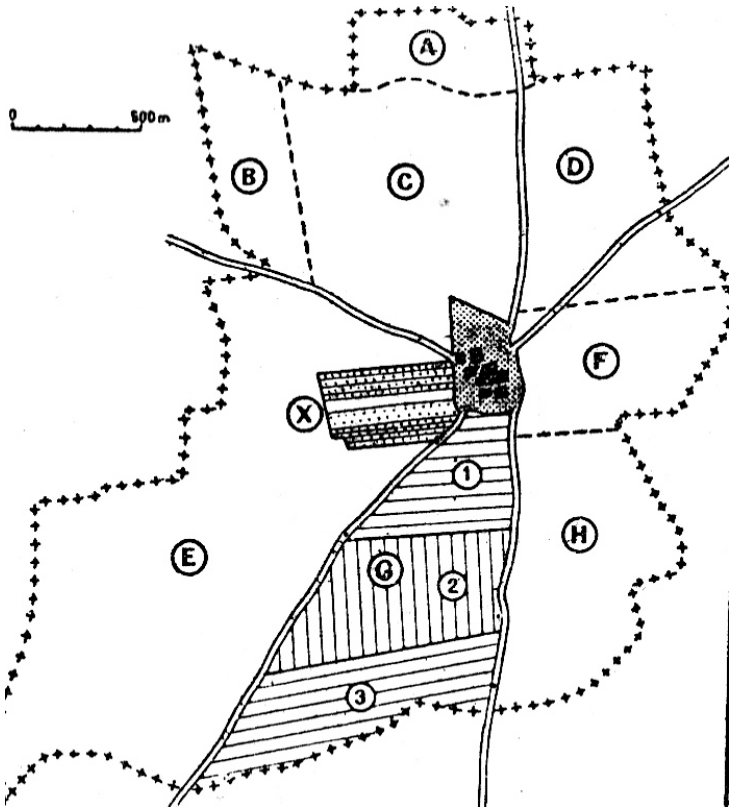

Fig. 3.9: A *musha*^{c} village (Saglaya). The figure shows the division of land in large quarters which are in turn subdivided in parallel strips. (Weulersse 1946: 100 fig.17)

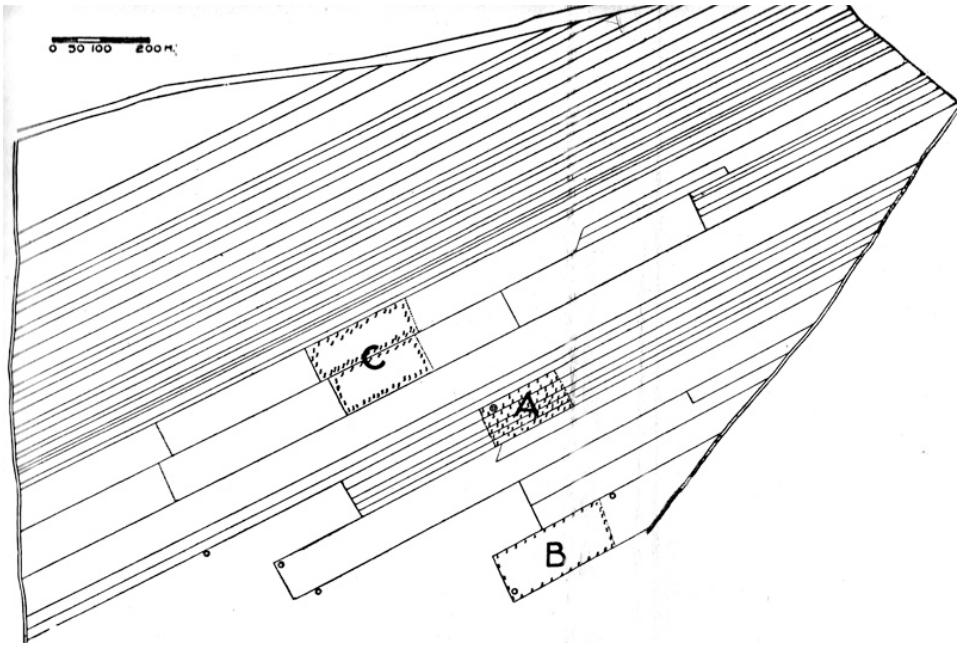

Fig. 3.10. Evolution of *musha*^{c} landholdings in the village of Tell Arrane (Aleppo). Narrow strips coexist with shorter but wider fields, the result of the solidification of landownership (Latron 1936: Pl.4 fig.1)

We are still far from a definitive explanation of the genesis of the ancient field patterns of the Limestone Massif. The evidence discussed above compels to remain cautious: despite

some orthogonal walls may suggest continuity between centuriations in the plains and land division in the jebel, the vast majority of cadastration patterns are likely to be the result of small-scale initiatives carried out by individual villages or even families. The direct impact of state-sponsored cadastres and, consequently, the extent to which the imperial administration oversaw settlement policies in the region remain uncertain at best.

The discussion of land patterns seems to confirm the general trend observed so far in which intensification of settlement rested primarily on endogenous rather than exogenous development and on transformations underwent by an indigenous population supported by quantitatively limited (but qualitatively significant) immigration of foreign elements. Regardless of the ethnicity of the local population (which is likely to have been overwhelmingly Aramean), inscriptions attest to a high degree of Hellenisation, which affected onomastics, art and public architecture. This may be explained with the increased level of connectivity between the indigenous populations of the mountain and the Greco-Roman settlers who populated the cities and plains of coastal and central Syria. This was no doubt due to the provincialisation of Syria which guaranteed lasting peace and conditions of security and provided the region with an important network of roads (most importantly the Antioch-Chalcis highway) that integrated the Limestone Massif into the imperial economy. From this point of view, therefore, the extension of Roman rule on the region had far-reaching consequences. The funerary dispositions recalling the crime of τυμβωρυχία and mentioning fines to be paid to the *fiscus* also suggest that the local population was aware of and organised itself in keeping with the imperial legal framework. Further evidence of this will be presented in the Part IV, when we will be return on the issue of imperial intervention in the Limestone Massif during the late antique period.

As far as the society and economy of the early communities of the region are concerned, we have argued that the aggregation of human groups was determined by the interplay of favourable ecological conditions and the interaction with the religious landscape represented by the local hilltop sanctuaries. Viewshed analysis, we have noted, shows that the majority of the earliest settlements of the region were established in clear view of one or more of these sanctuaries. At the same time, proximity to a large *doline* and the presence of surface karst aquifers or springs were key in the determination of early settlement patterns: the plain of Dana or the *doline* of Me^{c}ez were among the most long-lasting centres of settlement.

Society and economy were based on the central role of the enlarged family, which in this period finds its archaeological counterpart in the family mausoleum. The formation of village communities must have been gradual; social cohesion was initially found in the religious building projects, which expressed the first forms of public organisation such as the councils of *epimelêtai*. The cadastration of large tracts of land might also be due to village-sponsored initiatives, though the date when these were achieved remains unknown. Finally, several aspects lead to think that even the most affluent among the settlers of the early Roman period disposed of limited economic capabilities. The main building projects of this period such as the sanctuary

of Sheikh Barakat were achieved over generations, with each family only able to provide for a few metres of masonry to be laid. Similarly, the family of Apollas of Rbeita, who was apparently a local *euergetes* having built an *aulê* in the vicinity of some temple, appear to have possessed little more than an orchard.

We will see that demographic growth in the region, which was steady through the Byzantine period, the increasing demand for agricultural products on the regional urban markets and the appearance of new economic actors radically changed these conditions in Late Antiquity.

Part IV – The Limestone Massif in Late Antiquity

In Part IV, we will follow the development of settlement in the Limestone Massif from the Tetrarchy to the Abbasid caliphate and even beyond, into the Ayyubid period. In keeping with the research agenda outlined above (1.1.3 & 1.2) we seek to clarify four main aspects: the scale and depth of external intervention in the region; the features of social power, stratification and mobility in Late Antiquity; the economic factors that determined a boom of settlement and improved living standards; and the extent to which the socio-economic structures established in Late Antiquity survived to the Arab takeover.

We have noted above that, for the early-Roman period, imperial intervention seems to have been mostly circumscribed to bringing security and creating (or improving) a transport infrastructure; both had an important effect on the consolidation of sedentarised settlement in the region. In section 4.1, we will look at how, if at all, outside forces were able to affect the local affairs of the region in Late Antiquity. Particular attention will be devoted to understanding the impact of absentee ownership.

Having looked at the factors influencing the socio-economic structure of the region from without, we will look at how society changed from within. Section 4.2 concentrates on the assessment of rural society in Late Antiquity. In particular, it stresses how a redefinition of the social structure involved the establishment of largely informal power networks which were not only exploited by external actors (imperial officials and urban aristocrats) but also by local figures, such as the holy hermits who, from the late fourth century, became more and more numerous in the *heremos* of the Limestone Massif. A redefinition of village hierarchies also created stronger local leaderships through local priests and councils of village 'magistrates'. Moreover, for the first time the rural communities of the fourth-century Limestone Massif appear to have produced individuals who were able to climb the social ladder as well as emigrate from their communities of origin, an effect of the vitality which characterised the region in Late Antiquity.

The conditions that made it possible for the rural population to expand while improving living standards and ascending the social ladder were primarily economic. Thus, section 4.3 concentrates on the definition of the three main economic actors and their capabilities: the village household, the village and the monastery. Agricultural surpluses, which were arguably produced by villages and monasteries alike, are of little use without a market: thus, the final part of section 4.3 will address the question of which trade networks were exploited by the inhabitants of the Limestone Massif.

Finally, the last section (4.4) is concerned with looking at how the society and economy of the region evolved after the Islamic conquest of northern Syria in AD 638. It has been often suggested that by that time the Limestone Massif had either already entered a phase of stagnation due to a Malthusian crisis that would eventually lead to complete abandonment (Tate 1992 and Gatier 1994); or that disaster had already struck the region in the form of wars and diseases (Foss 1997); or that the severing of the Mediterranean trade routes plunged the Limestone Massif in period of rapid decline (Tchalenko 1953-8). None of these theories correspond in a straightforward fashion to the evidence. As it will be shown, literary, epigraphic and archaeological sources suggest that many of the social and economic conditions existing before the Arab takeover survived largely unchanged until the early-Abbasid period and possibly beyond.

4.1 Outside forces in the Limestone Massif. Emperor, imperial officials and urbanite landlords from Diocletian to Heraclius

This section seeks to address the issue of the impact that the great economic and social actors of Late Antiquity may have had on the countryside of northern Syria. In particular, it will concentrate on assessing the role that the emperor and imperial legislation had on the region of the Limestone Massif. It will also look at how the city as an institution appears in our evidence to have been perceived by the countryside. Finally, we will investigate how imperial officials and urban aristocrats as individuals were able to play a role in the social dynamics of the village society.

Any assessment of the impact of the emperor and the imperial administration on rural life in the Limestone Massif must distinguish between direct impact – namely how the emperor himself and the state administration directly intervened in the region - and an indirect impact, involving an analysis of the extent to which imperial legislation and institutions had a tangible effect on the rural life of this region.

The most direct form of imperial intervention to have left a record in the Limestone Massif was through imperial estates, but these were far from numerous in the region. In fact, only one is certain, though the existence of another can be postulated. These two estates were located in the wheat-producing plains of Dana and Armenaz (in the Rug *polje*) respectively and appear to have been in imperial hands since at least the time of Constantine.

The former is known from a boundary marker erected sometime between AD 578-582 – in the locality of Bab al-Hawa on the Antioch-Chalcis road just west of the Dana plain.[474] The inscription tells us that this estate was part of the *domus divina* of Hormisdas, an imperial property which is also known to have included a monastery in Constantinople.[475] The estate

[474] *IGLS* II 528
[475] Theoph. Cont. p. 154; 649 (ed. Bekker).

probably owed its name to the son of the Persian king Hormisdas II, who fled to Roman territory after a spell in prison following the crowning of his younger brother. He was well received by Constantine in AD 324 and he and his son were later involved in several military operations from the time of Constantine to that of Theodosius.[476] The granting of land to Hormisdas is not recorded in any source, but the creation of a *domus Hormisdae* must have been among the honours conferred by Constantine to the Persian prince and recorded by Zosimus (πάσης ἠξιώθη τιμῆς τε καὶ θεραπείας).[477] It is not known how long this property remained in the hands of the family of Hormisdas, though by the mid-sixth century it had been re-established as an imperial holding since it was managed by a *curator domus divinae*.[478] At the time of the boundary inscription, the curator was Magnus, who was *comes sacrorum largitionum* from AD 566 and received the office of curator of the *domus Hormisdae* probably around AD 578/9.[479] This estate was still managed by imperial curators in AD 602, when Constantine Larys – another curator of this estate – was executed for being a supporter of Maurice during the usurpation of Phocas.[480]

The size and structure of the estate is unknown. Tchalenko, followed by all the later commentators, believed that the boundary marker – which was found probably *in situ* along the Roman road where it enters a small valley just before the Dana plain – was to be associated with a group of structures found ca.800 m further west and located at either side of an arch built across the road. These structures, which Tchalenko identified as a church and a residential building for the estate manager are unfortunately poorly preserved and their precise function – let alone their date – cannot be determined.[481] At the same time, Tchalenko was probably right to suggest that the imperial estate took up part or the whole of the Dana plain to the east of the boundary marker (and of the arch, which for Tchalenko marked the entrance to the property). This inner valley contained some of the most fertile land in the entire region as evidenced by its continuous occupation from the Bronze Age to the Ayyubid period. The presence of tenant workers in the Dana plain revealed, for the mid-fourth century, by the life of Eusebius, the first archimandrite of the monastery of Tell ᶜAdah (and written by Theodoret about a century later) may attest to the existence of leasehold arrangements set up by the imperial administration to manage this property.[482]

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[476] PLRE I *Hormisdas* 2 and 3.
[477] Zosimus, II. 27.
[478] Three curators are attested for this *domus divina*: see PLRE IIIA *Constantinus* 33, *Domentziolus* 1; IIIB *Magnus* 2.
[479] For the chronology see Feissel 1985:472-3.
[480] *Chron. Pasch*. a. a. 602.
[481] Tchalenko 1953-8 I:116; Kennedy 2010:183. Tchalenko tentatively dated the church to the fourth century.
[482] Theod. , *HR* IV. 6. The word used is γηπόνοι, which Theodoret seems to have employed to mean dependant workers, or tenants working for a big landowner. This is clearly shown by the context in which the word is used in *HR* XIV 4, when Letoios – a *bouleutês* of Antioch in the second half of the fourth century – is said to have paid a visit to a village owned by him in order to exact a rent in kind from his γηπόνοι. See Canivet 1969:212.

The existence of another imperial property in the region can only be inferred by a reference to it in the *Liber Pontificalis* which was first noted by Honigmann.[483] The *possessio Armanazon*, as it is indicated in the *Liber*, is likely to correspond to Armenaz, an important centre in the north-western branch of the Rug *polje*, known to us as κώμη Λαρμαναζων from two funerary inscriptions of Syrians expatriates (see Appendix 1, items 32 and 56).[484] The estate figures among the goods donated by Constantine to the church of St Peter in Rome during the papacy of Silvester (AD 314-335). It has been noted that the list of imperial donations contained in the *Vita Sylvestri* in the *Liber Pontificalis* derived from an authentic *libellus* produced by the office of the *sacrae largitiones* or the *res privata* during the reign of Constantine and documenting all acts of imperial benefaction, including public euergetism. Like all the notices concerning property in the East, the donation of the *possessio Armanazon* must have been dated after AD 324, when Constantine remained sole emperor after having defeated Licinius at Chrysopolis.[485]A problem with the identification of this estate with modern Armenaz is that the *possessio* is listed under the *provincia Eufratense, sub civitate Cyro* instead of being *sub Antiochia* as we would expect.[486] The solution may lay either in textual corruption or in the fragmentation of the estate of *Armanazon*. In support of the former, there is reason to believe that the heading *in prouincia Eufratense* was not present in the original documents dating to Constantine's reign, but was added at a later time.[487] As for the latter, studies conducted on the other *possessions* mentioned in the *Vita Sylvestri* have shown that these were often highly fragmented.[488] Since the Cyrrhestike included territories as far south as the north-eastern jebel Sem^{c}an and possibly a portion of the Afrin valley, it would not be surprising for the *possessio Armanazon* to have included both land in the Antiochene (the village of Armenaz) and in the Cyrrhestike.

If the identification of the estate of the *Liber Pontificalis* with Armenaz is accepted, we may also go a little further in trying to determine the features of this property. As it is well

[483] The town was listed among the cities conquered by Shapur I:see Honigmann & Maricq 1953:163-4.
[484] *LP* 34, 20 (ed. Duchesne).
[485] For the gestation of the *libellus* and its dating see Vera 2003. According to Maiuro (2007), the *libellus* was drawn up by using two different lists:the list of the *fundi patrimoniales* (which contained the list of all estates acquired by the crown since the first century AD) and a more detailed list of properties acquired by the *res privata* from AD 302 onwards.
[486] Honigmann's tentative argument (Honigmann & Maricq 1953:164) that the Cyrrhestike could have stretched as far south as the Rug valley in the fourth century cannot be accepted. The Antiochene era is widely used in inscriptions found in the immediate vicinity of Armenaz:e. g. from Kuaro:*IGLS* II 661 (AD 223), 662 (AD 361); from Millis:650. 1 (AD 193); 648 (AD 359); from Kh. al-Ruman: Peña *et al.* 1990:156 fig. 112 (AD 151).
[487] *LP* 178 (ed. Duchesne); 60 (ed. Mommsen). The list of donations to St Peter (to which the *possessio Armanazon* belongs) appears to have combined at least two documents to be dated to Constantine's reign:a list of *fundi patrimoniales* inherited by the *res privata* from earlier emperors and a list of estates recently obtained by Constantine and his family. The document(s) on which St Peter's list was based was revised at least once, if not twice between the mid- and late-fourth century with the inclusion of the heading for the *provincia Euphratensis* and the revision of a revenue (post AD 383). Such laborious gestation enhances the chances that the *possessio Armanazon* could have been wrongly indexed.
[488] This was, for example, the case of the fundus Laurentus donated to the church of Saints Marcellinus and Peter (*LP* 183). See Maiuro 2007:250-1.

known, the *libellus* drawn up under Constantine also listed the revenue figures or value for each estate or property donated to the church. In the case of the *possessio Armanazon*, this is reckoned at 380 solidi. Contrary to the *domus* of Hormisdas, the *possessio Armanazon* was almost certainly a *fundus patrimonialis*, i.e. an estate that belonged to the inherited property (*patrimonium*) accumulated by successive emperors since the early days of the Principate. While legally part of the *res privata*, these estates were regularly leased out by means of emphyteutic leases or (more likely in the case of the fertile plains of Armenaz) assigned in *ius privatum salvo canone*.[489] The estates under such arrangements only yielded a fixed fee to the *fiscus* (and later to the *sacrae largitiones*).[490] Thus, the 380 solidi that the fisc (and, after Constantine's donation, the coffers of St Peter) earned from the *possessio Armanazon* should not be regarded as the actual revenue of the land, but as the fix fee paid in (probably annually) by the *possessor*/*dominus* of the estate.[491]

Comparison with other entries in the *Vita Sylvestri* suggests that this was a middle-sized estate, certainly smaller than the *massae* of the list but also bigger than the entries indicated as *fundi*.[492] Commentators have shied away from attributing a precise meaning to *possessio*;[493] in the eastern provinces of the Empire it seems to have corresponded to *epoikion*, which in Late Antiquity was often used to refer to privately-owned villages.[494] Despite having been worthy of inclusion in Shapur's list less than a century earlier, Armenaz appears to have been a fairly small site in the mid-fourth century: of the fourteen *possessiones* located in the eastern provinces, that of Armenaz was only ninth in terms of revenue. It is, of course, also possible that the reason for a comparatively low revenue did not lie in the small size of the property, but in the inclusion of poor lands (as argued by Vera with regard to late antique central Italy).[495]

The tentative identification of the *possessio Armanazon* with Armenaz in the Rug *polje* thus constitutes the second and last attestation of an imperial estate in the Limestone Massif. As we have noted, the *domus* of Hormisdas and the estate of Armenaz had rather different status within the imperial *res privata*. While the former directly supplied the imperial family and was managed – from at least the sixth century – by an imperial official (the *curator domus divinae Hormisdae*) – the latter belonged to the inherited imperial *patrimonium* and, before being given to St Peter, was in all likelihood managed by a private who held it under *ius privatum* or by means of a perennial lease. While legally still part of the imperial *res privata*, the estate of Armanazon was probably little different from other landed estates owned by the wealthy urbanites of Antioch and Apamea in the region (see below). Both estates, despite being known

[489] Delmaire 1989:669-74.
[490] The complex evolution of the *fiscus*, *patrimonium* and *res privata* during the Principate see Lo Cascio 1971/2 (= Lo Cascio 2000).
[491] *Ibid*. See also Vera 2003:430.
[492] Vera 1999:1000.
[493] Vera 1999; Maiuro 2007.
[494] For *epoikia* see above, note 388.
[495] Vera 1999:1001-2.

only from the time of Constantine, had probably been created at a much earlier date. Yet, while the property of Bab al-Hawa was still very much part of the *domus divina* in the seventh century, no other evidence exists concerning the fate of the *possessio Armanazon* after its donation to the church of St Peter in Rome. The assumption must be that it remained in the possession of the Roman church for some time, though St Peter would have found it increasingly difficult to extract revenue from its eastern possessions as time went by. Even if we allow for the estate of Bab al-Hawa to have occupied the majority of the Dana plain, imperial holdings in the massif must have still represented a factor of secondary importance in the economy of the region.

Aside from direct imperial intervention, individuals belonging to the upper tiers of the imperial administration did engage with the region, though mostly by exerting patronage or acquiring landed property.[496] Since in doing so they did not serve institutional, but personal interests, their role will be discussed at the end of this chapter together with that played by urban aristocrats.

We turn now to the extent to which imperial legislation appears to have been received and enacted in the region. A *caveat* is in order: because of the primarily epigraphic nature of our evidence, only legislation that was susceptible to being recorded on stone has left a mark. Thus, here more than for any other topic, it is important to bear in mind that absence of evidence is not necessarily the same as evidence of absence.

With this in mind, it is no coincidence that boundary markers provide the clearest evidence for the enactment of legislation in the region. Of a total of 25 such markers found in the massif and its immediate surroundings, 17 may be attributed to the Tetrarchic period and testify to a process of land rectification that most historians have associated with Diocletian's reform of taxation.

Much ink has been shed on the study of Diocletian's reorganisation of the fiscal system which led to the established of a form of distributive taxation that combined the land and capitation tax. This reform was applied in several stages beginning as early as AD 287 and can be regarded as complete in AD 313/4 with the introduction of the 15-year indiction cycle.[497] The reform introduced two new taxation units, the *caput* and the *iugum*, the assessment of which required the registration of all individuals, animals and lands. For this reason, the reform was accompanied by a census, which involved also the compilation of a land cadastre.

Imperial *censitores* were tasked with the surveying and measurement of urban and village territories and private domains, and these operations have left a trace in the numerous boundary markers found across the diocesis of Oriens (to this day ca. 60 have been published for the provinces of Syria-Phoenice, Arabia and Palaestina).[498] With some exceptions, these

[496] The only exception, that of the *comes Orientis* Bacchus (PLRE *Bacchus* 3), who is discussed below with regard to imperial legislation and its enactment in the region.

[497] On the chronology and content of the reform see Seston 1946:280; Jones 1964 I:61-5; Carrié 1994; Kuhoff 2001:484ff.

[498] Sartre 1992c; Millar 1993:535-42; Syon & Hartal 2003:238-9; Ma'oz 2006.

markers were found in three well-defined areas: the Limestone Massif and the surrounding plains, the Hulah valley and Golan Heights and *Batanaea* and northern *Auranitis*. Within each area, the majority of stones were found in smaller clusters: for the Limestone Massif, these were the northern and central jebel Sem^{c}an and the areas north and east of Jisr ash-Shughur (on the course of the Orontes facing the jebel Wastani). Most of the boundary inscriptions of the jebel Sem^{c}an are dated to the late spring and early summer of AD 297 while the majority of the other markers can be assigned to the first Tetrarchy (AD 293-305).[499] This dating together with the frequent mention on the stones of one or a pair of *censitores* as the officials in charge of the surveying operation leaves little doubt that this initiative was carried out in the broader context of Diocletian's fiscal reform. This argument was already outlined by Deleage, who saw the separation of what he called "grandes unités agraires" as a necessary step in that process of cadastration which the new taxation system required. Once the territory of villages (*komai* and *metrokomiai*) and domains (*epoikia*) had been firmly established, the imperial authority could have left the burden of smaller-scale cadastration to the local authorities, given that settlements were now individually responsible for the entirety of the taxation due on their territories.[500]

Deleage's view has found broad acceptance in later literature, though controversy remains on how to explain the uneven distribution of the markers.[501] Studying the markers found in the Hawran (in what was the north-western tip of the province of Arabia), M. Sartre has argued that their concentration in northern *Batanaea* and *Auranitis* should be explained with the fact that, unlike in southern Hawran, settlements in the northern part of the region were mainly autonomous villages lying outside the territory of a city. As independent fiscal units, Sartre continues, the villages of northern Hawran needed to be entered in the new cadastre alongside similarly independent fiscal units such as cities, estates and sanctuaries.[502] However, this theory fails to explain the concentration of boundary markers in the northern jebel Sem^{c}an and in the region of Jisr ash-Shughur, both of which were no doubt part of the territory of Antioch at the time of the Tetrarchy.[503]

More recently, Z. Ma'oz has argued that the disposition of the bulk of the boundary markers found between Mt Hermon and the jebel al-^{c}Arab within a narrow strip of marginal land may indicate a Tetrarchic policy to spur agricultural settlement in a previously sparsely occupied area. Such a policy would have entailed the creation of new villages, though Ma'oz believes that most of the newly-created settlements failed to survive in the long term.[504] Although Ma'oz acknowledges that this theory may only apply to the markers of southern Syria and northern Israel, the entire corpus of markers represents a single group (as pointed out by

[499] This is because the inscriptions mention the Augusti Diocletian and Maximian and the Caesars Constantius and Galerius.
[500] Deleage 1945:157.
[501] Sartre 1992c; Millar 1993:196.
[502] Sartre 1992c:130. For Sartre's view on the status of villages in the Hawran see *Id*. 1987.
[503] A fact confirmed by the dated inscriptions which use the Antiochene era.
[504] Ma'oz 2006:112-6.

Millar), and should therefore be considered together.[505] When this is done, the weaknesses of Ma'oz's theory become apparent. The area of the jebel Sem^{c}an where most of the markers of northern Syria have been found had a long history of settlement: villages such as Kafr Nabo or Brad, which probably figured in two fragmentary markers of the Tetrarchic period, have in fact yielded inscriptions dating from the first quarter of the third century.[506] Consequently, it is difficult to believe that the work of cadastration undertaken by the *censitores* of the Tetrarchic period should be related to the foundation of new villages in previously unsettled or sparsely occupied areas.

At present, therefore, we cannot go any further than associating the establishment of village and estate boundaries with the Tetrarchic reform of taxation. The process of cadastration in the Jebel Sem^{c}an was achieved primarily during the summer of AD 297 (nine markers are dated to between Deisios and Loos AD 297), in keeping with operations carried out during the same year in the desert of eastern Syria and in the area between Galilee and the Hawran. As such, the markers attest to the efficient and swift work that the imperial authorities conducted in the countryside of Syria. Finally, it may be noted that cadastration procedures in northern Syria appear to have been adapted to conditions that differed from those observed in the south. In fact, while individual markers in the Hawran and Hulah valley marked the separation of the territories of two or more settlements, in northern Syria (or, at least, in the jebel Sem^{c}an), boundaries appear to have been set in pairs placed a few hundred meters apart – each stone signposting the limits of the territory of one settlement only. The strips of unassigned land apparently left in between villages during their operations of cadastration included fertile wadi beds but also slopes of barren land. The reasons that motivated this peculiar arrangement, which finds no parallel in the rest of Oriens, are unclear. It is possible that the deep wells at the bottom of wadis may have been shared between several villages, thus explaining why these were occasionally left unassigned (see above, section 3.1).

Although a complete understanding of how the operations of cadastration were carried out remains at present out of reach, the boundary markers found in the Limestone Massif attest to the thorough inclusion of the region in a large-scale imperial measure which involved other rural areas of Oriens at the end of the third century, but do not suggest direct imperial management of the rural economy of the region.

Boundary markers also serve to illuminate another piece of legislation which was applied to the countryside of the Limestone Massif: the legislation concerning church asylum. This is illustrated by three boundary markers found in the villages of Juwanieh and Kafr ^{c}Aruq in the jebel Barisha. The text of Kafr ^{c}Aruq, unfortunately not found *in situ*, reads as follows:

[505] Millar 1993:535; see also Gatier's comments in *AE* 2006 n. 1559
[506] Such as *IGLS* II 359 (AD 207/8) from Brad and *IGLS* II 376 from Kafr Nabo (AD 224).

(crux) ἐπὶ τοῦ δεσ[πότ(ου)] τῶν ο<ἰκ>[ουμ(ένων) Φ]λ(αουίου) Ἰουστινοῦ Αὐγουστ(οῦ) παρεσχήθη | ὑμῖν εἰς προσφύγιον τῶν ἁγίων Εἰᾶ(?) (καὶ) Ἀνδρέου | (καὶ) Δομετίου, <ἰ>νδ(ικτιῶνοσ) ιε΄, τοῦ οφ΄ ἔτους.(crux)[507]

The longer of the two texts from Juwanieh has the following:

(crux) ὅροι ἀσυλίας | τοῦ ἁγίου πρωτομάρτυρ(οσ) | Στεφάνου, φιλοτι|μηθέν(τεσ) παρὰ τοῦ | γαληνοτ(άτου) ἡμῶ(ν) | βασιλέως Φλ(αουίου) Ἰουστινιανοῦ τοῦ αἰ|ωνίου Αὐγούστου (καὶ) | ἐπὶ τοῦ ἁγιωτ(άτου) (καὶ) μ|ακαριωτ(άτου) ἀρχι|επισκ(όπου) ἡμῶν | (καὶ) πατριάρχου | Δομνίνου, | (καὶ) τοῦ ἐνδοξ(οτάτου) κόμ(ητοσ) | [(καὶ) τῶ]ν θεοφφ(ιλεστάτων) {θεοφιλεστάτων} | Ἡρακλείου, Ἀνδρ[έ]|α, (καὶ) Ἰωάννου πρρ(εσβυτέρων) {πρεσβυτέρων}, | ΧΜ[Γ]

To these we must add a boundary marker found at al-Bara (j. Zawiyé), which limited the "boundaries of the church of the village of *Kaproperon*" and may well have been an abridged version of a marker inscription similar to those above.[508] These texts refer to the same body of legislation and may be compared with a sizeable group of other inscriptions referring to the establishment of the right of asylum (ἀσυλία, καταφύγιον or προσφύγιον in the inscriptions).[509]The evolution of legislation on church asylum suggests that this had been an accepted practice as early as the fourth century.[510] Successive emperors sought to regulate it, and were particularly concerned with forbidding abuses of it by criminals, state debtors and fugitive curials. The first clear recognition of the practice of church asylum by the imperial administration is contained in *C.Th.* 9.45.4 (AD 438), a law of Theodosius II and Valentinian III recognising the right to asylum for all "those in fear" (*timentibus*). The constitution also made clear that not only the premises of a church, but also its surroundings as far as the outer gates of the church (*usque ad extremas fores ecclesiae*) were to be included in the prerogatives of asylum. An earlier constitution in the western part of the Empire had set the maximum extent of the sacred precinct of a church to 50 paces (ca. 75 m) outside the built premises.[511] It is presumably in keeping with such legislation that churches such as those of Eias (Elias?) and Andreos at Kafr ᶜAruq and of Stephanos at Juwanieh put up boundary markers to indicate the

[507] *IGLS* II 587 (AD 522).
[508] *IGLS* IV 1481. Indeed Prentice, in his *editio princeps*, had believed the text to contain a reference to asylum (PUAES III 1062).
[509] Some twenty asylum markers have been found, mostly in northern Asia Minor and Greater Syria. As far as Syrian documents are concerned, see for καταφύγιον: *IGLS* I 160 (environs of Cyrrhus, AD 491-518); *IGLS* II 270 (Rasm al-Buz, AD 506/7); *IGLS* IV 1694 (Andarin). For προσφύγιον:Giron 1911:71-5 (Damascus); *IGLS* II 589 (Kafr 'Aruq, AD 521/2). For ἀσυλία:*IGLS* II 618; 620 (Juwanieh, AD 554); *IGLS* V 2513 (Salamias); Jarry 1968 (Syria, AD 602?); *SEG* VII 327 (*kome Chedaron* in Phoenice Litoralis, AD 578-82).
[510] The debate on church asylum goes back to the nineteenth century. For recent surveys see Duclaux 1994; Manfredini 2002 (mainly for asylum of debtors); Hallebeek 2005 (esp. 163-75).
[511] *Sirmond.* 13 (AD 419).

limits of the land protected by asylum. With the emperor Leo, church asylum was given further strength: the forced eviction of asylum-seekers (bar those who carried arms) was strictly forbidden and church authorities were, for the first time, spared the obligation to pay for public or private debts incurred by people who sought refuge in the ecclesiastical premises.[512] Justinian later reintroduced the fiscal responsibility of the clergy in the case that public debtors took protection into churches and excluded criminals such as murderers from the right of asylum.[513]

Despite the limitations imposed by Justinian, boundary markers found across Greater Syria attest to the important role that church asylum maintained through the sixth century. In order to obtain their right to asylum, churches had to individually seek the authorisation of the emperor, which was granted through the intermediation of the bishop of the city in whose territory a given church lay. Although this is never stated in the imperial legislation on church asylum that we have surveyed above, such procedure is arguably proven by the wording of markers such as that from Juwanieh and similar ones from Cyrrhus and Tokat (ancient Comana in Pontus). [514] More still, it is confirmed by the text of a petition addressed to the emperor Tiberius II by the priest of the village of Chedron (probably in the territory of Caesarea Paneas). This latter is preserved on an inscription now in the Louvre, which we must presume to have been exhibited in front of the village church, possibly in association with the boundary markers signposting the limits of the church's sacred precinct. In this petition, the priest and *paramonarius* Anastasius noted that his church lacked the security boundaries that would grant safety to the προσφεύγονται and asked the emperor to grant the ὅροι ἀσυλίας through the intercession of the city's bishop.[515]

The fact that such a procedure was carried out by priests in the villages of Juwaniyeh, Kafr ᶜAruq and, perhaps, al-Bara demonstrates that local church authorities were able to reach out to the emperor and attests to the doubtless assimilation at rural level of imperial legislation on asylum.

If the emperor as a law-giver was indeed present in the countryside, we should now look at how and to what extent the cities of northern Syria, and most of all Antioch and Apamea, the two *metropoleis* of Syria I and Syria II, may be said to have played an active role in their hinterland. First of all, it is important to note that, from a rural perspective, very little is known of how much the cities as institutions were able to reach out to the countryside. There can be no doubt that individual rural communities were aware of belonging to a given urban territory: the use of the era of Antioch (49/8 BC) in the Antiochene villages and the Seleucid era

[512] *CJ* 1. 12. 6 (AD 466). Manfredini 2002:310-6.
[513] *Nov*. 17. 7 (AD 535). Manfredini 2002:320-2, Similar dispositions were also maintained in Edict XIII with which Justinian reorganised Egypt probably in AD 538/9:Demicheli 2000.
[514] The texts from Juwanieh and Tokat share the formula ὅροι ἀσυλίας…φιλοτιμηθέντες παρὰ ("limits of the asylum…offered by") followed by the name of the emperor(s). The inscription from Cyrrhus, instead, refers explicitly to a letter (γράμμα) of Anastasius which granted the right of asylum to the church of St Dionysios (see discussion in Cumont 1907:451-5).
[515] A first discussion of the text is offered in Dain & Rouillard 1929-1930; see also Wenger 1931:431-33. For the emendations to lines 12-13 (accepted here), see *SEG* 38 1583.

(312/1 BC) in the Apamene sector of the jebel Zawiyé clearly attests to such awareness. This is also confirmed by the funerary epigraphy of the Syrian diaspora (section 4.2 and Appendix 1), where the village of origin of the deceased is, in the majority of cases accompanied by the territory of the city in which it fell.

Yet, the extent to which the city as an institution interacted with the countryside remains largely unknown. Indeed, except for tax collection exerted by city councils in autonomous village communities, which is attested by passages of Libanius and Theodoret, the city is rarely present in the countryside.[516] Urban markets were, of course, important outlets for the produce of the countryside (see below, section 4.3), but – with the exception, once again, of taxation – there is no evidence to suggest that urban centres tried to regulate commercial flows to and from the countryside. On the other hand, we may guess that some of the estates owned or administered by cities may have been located in the Limestone Massif, though conclusive evidence is entirely lacking.[517] Cities may, however, have influenced rural communities in a more indirect and subtle way. For example, the appearance of rural bath houses, in spite of their simple plans, may have represented an attempt to imitate the civic amenities of Antioch, Apamea and Beroia. These baths have been found in only a handful of villages: Brad and Babisqa in the northern chains; and al-Bara, Shinsharah, Mugleyya, Frikya and Sergilla in the jebel Zawiyé.[518]

On the whole, however, the role played by the city as an institution in the society and economy of the Limestone Massif remains dimly defined. At the same time, there is no doubt that powerful individuals residing in the cities of northern Syria had interests in the rear country of the urban centres. Our sources suggest that interaction between urban aristocracies and country folk was mostly dictated by the vagaries of absentee property which entwined with the complex reality of rural patronage. The urban aristocrat and the imperial bureaucrat were active in the countryside mostly as *dominus* (δεσπότης) and *patronus* (προστάτης). The *dominus* had also to be an effective patron if he wanted to ensure the smooth management of his land and tenants. At the same time, lack of landed property would have made it harder for a would-be patron to develop the prestige and authority necessary for this role. Yet, while closely connected, land ownership and patronage were never completely superimposed. A *patronus* did not have to be the *dominus* of a certain village for it to be under his patronage. An instructive example of the way in which patronage and absentee landownership intertwined is that of the village of Maronias, a site probably located along the northern slopes of the jebel Barisha which provided the setting for Jerome's *Vita Malchi.*[519] In the summer of AD 374, when Jerome

[516] E. g. Theod. , *HR* XVII. 3-4.
[517] Estates belonging to the city of Antioch are often referred to in Libanius (e. g. *Or*. XXXI, 16-17; LII, 33; L, 5). See discussion in Liebeschuetz 1972:149-61.
[518] Charpentier 1994 (esp. on Sergilla); *Id*. 1995; *Syrie du Nord* 1995:20-7 (Brad); *Syrie du Nord* 2007:17-21 (al-Bara).
[519] Jer. , *V. Malchi,* §2. 1-2 (ed. Leclerc-Morales). The village is said to be thirty Roman miles east of Antioch. If, as it is likely, this distance was calculated along the Antioch-Chalcis road, this indication

probably visited this hamlet (a *viculus* in the Latin; the Greek version of the Life has it as a χωρίον), Maronias was in the hands of Evagrius. A curial of Antioch and a friend of Jerome's, Evagrius had a prestigious family stemma and had himself been provincial governor before becoming more heavily involved in church affairs and eventually winding up as bishop of Antioch in AD 388.[520] Despite being forced to sell some of his landed possessions to pay a fine in AD 364, he doubtless remained a member of the landed aristocracy of Antioch.[521]

It is possible that Evagrius had acquired the estate of Maronias by means of a *conductio* rather than as its full owner, since Jerome speaks of him having *possessio* rather than *dominium* over it. Although there is no way of knowing whether Jerome used the term *possessio* in its strictest legal meaning, the wording of this passage suggests that Jerome wanted to convey an accurate account of the conditions of landholding in Maronias for he later added that, before Evagrius, the village had been subject to "many owners or patrons" (*multos dominos vel patronos*).[522] The disjunctive conjunction *vel* fully conveys the ambiguity of the opposition between ownership and patronage; indeed, while it was usual custom for the owner of a village to also be its patron, the evidence suggests that the *dominus* and *patronus* could be different and coexisting figures (despite being at odds with one another).

The superimposition of ownership and patronage is best described by Libanius's own experience with his Jewish tenants, which may have provided the *casus* for his famous oration *De patrociniis*.[523] On one of Libanius's estates, some tenants who had worked for his family for four generations decided to renegotiate their leasing arrangements and were for this reason brought to court by Libanius. For this reason, they decided to seek the patronage of a "general" (for Liebeschuetz the *magister militum per orientem*), bringing to him presents of barley, corn, ducks and fodder. The general decided to exert his influence and got them acquitted. We are left in the dark as to what happened after the *stratêgos* successfully exercised his role as a patron of Libanius's tenants: while nothing suggests that the estate changed ownership, we must presume that Libanius's tenants continued to seek the powerful *stratêgos*' influence in return for payments. Rural patronage did not, therefore, necessarily imply ownership of land. Confirmation of this may be found in another oration of Libanius, the *Contra Mixidemum* (*Or*. XXXIX). In this piece of invective oratory directed at a *honoratus* of Antioch whose real name was aptly concealed behind a pseudonym, the sophist seems to suggest that Mixidemos used his role as a patron to obtain two rather different objectives. Some villagers under his protection

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would place the village just slightly east of Imma and already into the region of the Limestone Massif (Tchalenko 1953-8 I:152).

[520] PLRE I *Evagrius* 6. Leclerc-Morales 2007:19; Kelly 1998:33; 44.

[521] Libanius no doubt exaggerated the misery of his protégé (whose cause he was trying to uphold with his powerful contacts), by depicting him as in a complete state of abjection: see *Ep*. 1311 (AD 364).

[522] It is worth quoting the Latin: *Hic* (Maronias) *post multos vel dominos vel patronos* […] *ad papae Euagrii necessarii mei possessionem devolutus est*.

[523] Lib. , *Or*. XLVII, 13-6. Much has been written on this oration and its historical significance:see in particular, Pack 1935:45-52; Harmand 1955 (who also summarises earlier views); Petit 1955:188-90; 372-89; Liebeschuetz 1972:199-208; Carrié 1976.

were in fact required to regularly pay to him a fee in kind for his services;[524] in other cases, however, Mixidemos resorted to buying land in villages and later proceeded to acquire the remainder of the village territory by using his influence to persuade his neighbours to sell their holdings.[525] Mixidemos was, therefore, both a patron and a landowner, but these two roles did not have to necessarily coincide at all times.

While the different forms of land tenure were clearly defined in juridical terms, patronage – despite numerous attempts at framing it within the legal system – remained a largely informal social institution.[526] As such, unlike ownership and tenancy agreements, patronage networks were subject to rapid shifts, which were determined by the ability of would-be clients to find a more influential patron to replace the previous one. This is precisely what happened to the unnamed *officiales* (ὑπηρέτας τῆς ἀρχῆς) who had acted as patrons for those villagers who later sought the protection of Mixidemos.[527] The shifting nature of rural patronage was no doubt among the aspects that Libanius wished to condemn with his *De Patrociniis*.[528] As it has been often pointed out, Libanius did not reject rural patronage as a social institution, but he regarded it as a rightful prerogative of landowners to be the patrons of their tenants. In so doing, he refused to accept the increased social complexity of the time he lived in, which allowed villagers to seek protection from a much wider pool of *potentes*. From the mid-fourth century, in fact, new actors joined the traditional landscape of power in the countryside, with imperial officials, but also holy men and monastery archimandrites flanking the curial class in providing patronage.[529]

What rural patronage entailed may be gauged from the writings of Libanius, John Chrysostom and Theodoret, but also, implicitly, from the constitutions against it which were grouped under the heading *de patrociniis vicorum* (*C.Th*. 11.24) in the Theodosian code and from legislation recorded in the Justinianic code and in later Novels. In general terms, the good patron is defined by his ability and willingness to help and support his tenants: such acts Libanius attributes to his friend Thalassios (*Or*. XLII, 7) and to Mixidemos (*Or*. XXX, 10). The main concerns of rural communities emerge in the oration *De Patrociniis*, and particularly in the opposition between the excesses committed by the inhabitants of free and dependent villages under military patrons (XLVII, 5-7; 11-12) and what Libanius regarded as the acceptable terms of patronage (XLVII 19). Overall, the rural patron had to be able to offer protection against aggression, help in the maintenance of irrigation infrastructure, negotiate the lightening or ensure the waiving of the tax burdens and debts and provide arbitration in cases of internal

[524] Lib. , *Or*. XXXIX, 10.
[525] Lib. , Or. XXXIX, 11.
[526] The legal conceptualisation of rural patronage may be found under the heading *de patrociniis vicorum* of the *Codex Theodosianus* (C. Th. XI. 24) and *Iustinianus* (CJ XI. 54). The best commentaries remain Zulueta's (1909) and Martroye 1928.
[527] Lib. , *Or*. XXXIX, 10.
[528] Lib. , *Or*. XLVII. :
[529] For rural patronage exerted by holy men and monastery hegumens see section 4. 2 below.

disputes. A patron could also be sought by dependent workers who were engulfed in disputes with their landowner, as happened to Libanius himself with his Jewish tenants.

From the legal codes, we can also see how rural patronage could work against the interests of the imperial administration.[530] The laws contained in *C.Th.* 11.24 show that, in the eyes of the imperial administration, patronage was only to be condemned when it was susceptible of affecting the successful collection of taxes.[531] This is already apparent in *C.Th.* 11.24.1 (AD 360), the first law to refer to rural patronage, where *coloni* who had taken up patronage of powerful men were called upon to meet their fiscal obligations. Later laws specified fines to be levelled against rural patrons of various ranks, including curials.[532] Once again, however, patronage was only opposed insofar as it led to tax evasion (*fraudandorum tributorum causa*). Through the late-fourth and fifth century, legislation on patronage became increasingly limited to condemning *patrocinium* of villages of freeholders: this first becomes clear with *C.Th.* 11.24.5 (AD 395), which was aimed at patrons who offered protection to peasants and villagers who had possessions of their own (*quis agricolis vel vicanis propria possidentibus patrocinium reppertus fuerit ministrare*). The independence of *metrocomiae* (i.e. self-administrating villages) from patronage was also at the centre of a law issued in AD 415, while a law of Leo in AD 468 punished freeholders who alienated their lands in exchange for patronage.[533] The emphasis on the condemnation of patronage of freeholders betrays the administration's concern with the survival of a wide tax base. For the same reason, the government was little worried by rural patronage on what Libanius had called οἷς εἷς ὁ δεσπότης, the privately owned settlements, for patronage on these latter did not alter their fiscal status – the responsibility to collect taxes passing from owner to patron.

The centrality of taxation in the quest for rural patronage is also borne out by episodes in Theodoret's *Historia Religiosa*. The case of the monk Abraham, a native of the Cyrrhestike, is perhaps the best known.[534] Having moved to a village of the Emesene with the aim of converting the local population to Christianity, he initially faced opposition. However, after he managed to secure a loan for the villagers to pay their land tax, he was named patron (*prostatês*) of the village and later went on to become its priest.[535] A similar case involved Maesymas, who was the priest of a village of the Cyrrhestike that was owned by Letoios, a curial of Antioch and an acquaintance of Libanius.[536] We are told that Letoios had come to exact revenues from his tenants (either a rent or land tax to be paid in kind) in a way that was "harsher than necessary". Maesymas successfully negotiated better terms for the villagers after having cursed Letoios, a

[530] The complex debate about rural patronage is traditionally intertwined with that on the origin and nature of colonate. This latter has not been included in this discussion.
[531] For a recent summary of the evidence, see Sarris 2006:183-93.
[532] *C. Th*. 11. 24. 4 (AD 395). :
[533] Respectively *C. Th.* 11. 24. 6 and *CJ* 11. 54. 1.
[534] Brown (1971:86, which mistakenly sets the episode in the Apamene) mentioned it in his famous essay on patronage exerted by ascetics, for which see section 4. 2 below.
[535] Theod. , *HR* XVII. 3-4. For the role of priests in the rural hierarchy see section 4. 2 below.
[536] Theod. , *HR* XIV. 4.

fact that resulted in his chariot getting miraculously stuck until the councillor accepted the holy man's conditions. Although Maesymas is not explicitly said to have been the "patron" of this village, his attempt at negotiating better terms for the villagers with regard to rent/taxation mirrors closely the case of Abraham and places him alongside other holy men whose role as rural patrons will be discussed in section 4.2.

Neither absentee landownership nor patronage of curials and imperial officials can be easily assigned to any individual community of the Limestone Massif. As for ownership, the case of the village of Maronias discussed above is the only one that can be assigned to the region with any degree of certainty. The location of Libanius's estates, albeit long debated, remains a thorny issue.[537] Letters and orations suggest that the sophist possessed several holdings: one property, the Ζηγους χωρίον, he had inherited from his uncle Phasganios while the estate worked by Jewish tenants and discussed in the *De Patrociniis* had apparently belonged to his family for four generations.[538] Some of Libanius's property, perhaps the Ζηγους χωρίον, may have lain in the territory of Apamea for he is known to have sold agricultural produce from his estates on the market of that city.[539] The property worked by Jewish tenants was in the past thought to have been located in Palestine.[540] Harmand was the first to point out the importance of the Jewish community of Antioch and believed the estate to have been somewhere in the Orontes valley.[541] Later scholars have either accepted this view or avoided the issue altogether.[542] An aspect that has been often neglected in this discussion concerns the presence of Jewish communities in the rural Antiochene. Indeed, at least two episodes, respectively to be assigned to AD 415/6 and AD 517, attest to the presence of Jews at Imma (northermost j.Barisha) and Kafr Kermin (jebel Srir). The first episode is related by Socrates Scholasticus and Theophanes and regards an attack against a Christian boy perpetrated by a group of Jews in the town of Immon/Immonmestar, which most commentators have identified with Imma/ᶜImm.[543] The second is the attack perpetrated by Jews instigated by the bishop Peter of Apamea against a group of Chalcedonian monks in AD 517. This episode happened in the village of *Kaprokerameon*, which has been securely identified with Kafr Kermin in the jebel Srir.[544] The existence of communities of Jews in two villages that lay at the immediate periphery of the Limestone Massif make it possible, though impossible to prove, that Libanius' holdings could have been located in this region.

[537] For a summary of the debate see Harmand 1955:67-73.
[538] *Ep.* 126 (AD 359/60); *Or.* XLVIII, 13.
[539] *Ep.* 133-6 (AD 359/60). Mocimus, the man charged with selling the produce, is said to have worked for the uncle of Libanius in the past (*Ep*. 136). It is not impossible that he may have been the administrator of the estate that Libanius inherited from Phasganius.
[540] Zulueta 1909:32ff.
[541] Harmand 1955:73-87.
[542] Liebeschuetz 1972:44.
[543] Socr. , *HE* VII, 16 (ed. Périchon-Maraval); Theoph. , *Chron.* a. a. 5908 (ed. Classen; tr. Mango & Scott); Mich. Syr. II p. 12 (ed. Chabot).
[544] On this episode see Alpi 2003-4 (esp. 141-2 for the location of Kafr Kermin).

An episode of the Syriac *Life of Symeon Stylites* can also be broadly attributed to the Limestone Massif. It relates to a *bouleutes* of Antioch who, after being cursed by Symeon for having increased taxation on dyers, sought his pardon by asking the priests of the villages that belonged to him (ܠܟܠܗܝܢ ܐ ܩܪ̈ܝܬܐ ܠܟܗ̈ܢܐ ܕܩܘܪܝܐ ܕܝܠܗ) to visit the saint at Qal^c^at Sem^c^an. The use of the possessive particle *dyl* leaves little doubt that ownership of villages was intended, though we cannot exclude that ownership had been the by-product of a longer standing patronage bond, something that the compilers of the legal codes were eager to condemn (see above). While the councillor's villages may well have been scattered in the hinterland of Antioch, some are likely to have been located close to the holy man's shrine in the jebel Sem^c^an.[545]

A similar case is described in the ninth-century *Life of Timothy*, where a powerful individual from the town of al-D.Q.S (the vocalisation of the toponym is unknown) was able to summon a large crowd (probably of villagers) to seek the pardon of Timothy who had cursed him for having committed adultery.[546] Unlike the episode of the Life of Symeon, the Arabic text of the *Life of Timothy* gives no hint as to the nature of the tie that bound this powerful urban dweller to his followers. They could have been freeholder clients, tenants working his properties or both at the same time.

Large landed property in the massif is also adumbrated by inscriptions referring to *epoikia*, a term that – when used in its strictest technical meaning – referred to individually owned settlements. We have already noted (Part III) the existence of some *epoikia* as early as the second century AD. In Late Antiquity, the Tetrarchic boundary markers discussed above provide further examples of privately owned hamlets: these are the *epoikion Zaerous*, convincingly identified with modern Baziher in the jebel Sem^c^an; the *epoikion Kaperou[.]ameos*, possibly Ferkan in the same area of the massif; and an unnamed *epoikion* in the vicinity of Jisr ash-Shughur.[547] Others would no doubt have existed in the region, though we are unable to estimate just how great a percentage of total settlements would have been made up by privately-owned villages.

To conclude, emperor, imperial official and curial were represented in the social landscape of the Limestone Massif. The evidence for the enactment of imperial legislation, the capability of rural priests to contact the emperor (albeit via the mediation of the bishop) and the awareness that the rural communities had of being part of larger political institutions under the leadership of a metropolis show that the Limestone Massif was not secluded from the rest of northern Syria and, more broadly, from the rest of the Empire. Yet, direct intervention of external actors was limited and mostly restricted to the sphere of land holding and rural

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[545] *V. Sym. Styl.* , §56 (=Bedjan 1894 IV:582). Doran uses the manuscript Vatican 160 first edited by Assemani in 1748. When Syriac words need to be quoted, as in this case, I have used Bedjan's edition (1894) which is based on the British Museum manuscript Add. 14484. For further discussion of the Syriac *Life of Symeon* and its manuscript tradition see below, section 4. 2

[546] *V. Timothy*, §P22 (ed. Lamoreaux-Cairala).

[547] Respectively Tchalenko III:n. 8d (*ep. Zaerous*); 9 (*ep. Kaperou[.]amis*); Adinolfi 1965:71 (near Jisr ash-Shughur).

patronage, two issues that – as we have described – were intimately connected. Admittedly, the limits of the evidence make it difficult to attain a precise assessment of the role of outside forces in the social and economic dynamics of the region. Yet, at the present state of our knowledge, external actors do not appear to have had a major role in shaping the socio-economic structures that defined settlement in the Limestone Massif in Late Antiquity. These, it would appear, were developed in substantial autonomy from external influences and deserve, for this reason, to be analysed separately.

4.2 Late antique society

The previous section has explored the ways by which outside forces, namely the emperor, the high clergy and urbanites were involved at various degrees in the social dynamics of the Limestone Massif in Late Antiquity. Although external actors could exert an important influence on the region, they were unable to significantly affect the main social and economic tenets of the village society. Despite the postulated importance of rural patronage, whether exerted by urbanites, imperial officials or (as we will see later in this section) holy men, agriculturists were never turned into a mass of landless *coloni*. Rather, the availability of many different "candidates" for the role of patron put the villagers in a position to choose who would best represent their interests: the villagers who ditched their imperial patrons for the protection of the wealthy Antiochene Mixidemos are a case in point. Alongside imperial bureaucrats and urban aristocrats, the late-fourth and fifth century saw the emergence of yet another "candidate" for patronage: the holy man, the ascetic who rose from or joined the monastic communities that were being established in countless numbers in the region. Although some such ascetics were not from the Limestone Massif, their rise to prominence was an entirely local phenomenon and must thus be treated together with other endogenous developments in the social structure of the region. To understand the holy man as a rural patron, we must first introduce the issue of the Christianisation of the region, which happened simultaneously to the spread of monasticism and created a new form of village leadership in the person of the local presbyter. Contemporary to the formation of a rural clergy, village institutions appear to also have taken shape in the form of councils of magistrates. The more stratified village society that emerges in Late Antiquity found its vertex in the rural patron. Such society was a product of economic and demographic growth, which, in turn, generated the conditions for increased social and geographic mobility: because of this, the region became more deeply connected with the rest of the Empire.

The complex social developments of this period will be analysed as follows. We will first briefly survey how Christianity spread in the region and why it matters. Then, we will discuss village institutions and the role of the holy man as a rural patron. Finally, we will look at how the epigraphic evidence illuminates the issues of social and geographic mobility. Well-off

migrants who settled in Italy and other parts of the Empire and people who climbed the social ladder to become influential imperial officials or bishops attest to the success of the village economy of the massif, to which we will then turn in section 4.3.

The diffusion of Christianity in the region was a lengthy and sometimes troublesome process. It is very likely that the majority of the rural population of Apamea and Antioch was still largely pagan in the last third of the fourth century. This may be gleaned from literary, epigraphic and archaeological sources. Especially in the Apamene, pagan shrines were still in use at this point in time; when the bishop of Apamea, Marcellus, started in AD 386 to destroy them and replace them with churches, the rural population rose against him and eventually killed him sometime after AD 394/5.[548] The violent replacement of pagan shrines with churches at the end of the fourth century finds confirmation in the excavation of Huarte in the jebel Zawiyé. Below a church excavated by Canivet and dated, in its initial phase to c. AD 400, a cave used as a *mithraeum* was found.[549] The thorough excavation of this cave has shown that the cult – established as early as the first century AD – was maintained until the end of the fourth century.[550] Soon afterwards, a church was built right on top of the cave. There is no doubt that the destruction of the *mithraeum* was the work of Christians: the foundations of the church were mostly built out of blocks and tiles belonging to the earlier structure; paintings of the *mithraeum* were disfigured and crosses engraved on the walls.[551] The circumstances that led to the obliteration of the *mithraeum* and the building of the first church are likely to have had a strong impact on the village community and the presumption must be that internal strife ensued between the partisans of the new and of the old cults. Such conflicts are likely to have been widespread in the region.

Epigraphic sources also testify both to the survival of pagan cults deep into the fourth century and to the gradual penetration of Christianity in the massif. This phenomenon has been studied, particularly for the Antiochene, by Frank Trombley who has underlined the importance of dated 'εἷς θεὸς' ("One God") inscriptions in charting the spread of Christianity in the countryside.[552] These are, for the most part, concentrated in the period between AD 350 and AD 450 and may attest to the growing number of conversions that took place during that century.[553] Similarly to the first settlers of the massif, the first Christians appear to have found particularly fertile ground in the jebel Barisha and Halaqa and, of course, in the plain of Dana which was

[548] The story is told by Theod. , *HE* V. 21, 5-15. Soz. , *HE* VII. 15. 13. Regarding the date of the death of Marcellus, a *terminus post* in AD 394/5 is suggested by a mosaic inscription found at Khirbet Muqa (in the vicinity of Khan Sheikhun) which shows that Marcellus was still bishop in AD 394/5. The date was wrongly read by Seyrig (*apud* Tchalenko III n. 39a) as being AD 384/5.
[549] Canivet & Canivet 1987; Gawlikowski 1998; 1999; 2000; 2001; 2007; Majcherek 2003.
[550] Gawlikowski 2001:278; Majcherek 2003:332. Gawlikowski (2007:341) also notes that the last coins associated with the use of the floor level belong to the reign of Arcadius.
[551] Gawlikowski 2000:312. *Id*. 2007:341.
[552] Trombley 1993-4; 2003.
[553] Trombley 2003:72ff.

soon afterwards to become one of the most important centres of Syrian monasticism.[554] Judging from Theodoret's *Historia Religiosa*, the first monastery was founded around the mid-fourth century by Ammianus and Eusebius at Tell ᶜAdah (ancient Teleda), located right below the eastern slopes of Sheikh Barakat. It would appear that, by that time, the great sanctuary of Zeus Madbachos and Selamanes was no longer in use.[555] Yet, pagan cults were practiced elsewhere in the massif. An inscription found at the sanctuary of al-Hosn dates to AD 367/8 the restoration (or the expansion) of the temple of Zeus Korypheus by five councillors of the village of Touron.[556] A few decades earlier, in AD 325, Abedrapsas, a villager of Frikya in the jebel Zawiyé boasted of the favours received by his ancestral god (probably the deity worshipped on the hilltop sanctuary of Schanaan). More broadly, it is worth pointing out that, despite the steady growth of εἷς θεὸς inscriptions from the 340s, it is only around AD 390 that Christian iconography (cross, chi-rho, alpha-omega, fish) or formulae (εἷς θεὸς, Χριστέ βοηθῇ, Ἰχθυς) became typical features of the local epigraphic record.[557]

The Christianisation of the massif was both conducive to and determined by the spread of monasticism and asceticism in this region. According to our sources, monasteries were established by both outsiders and natives of the region. Thus, Ammianus and Eusebius, the founders of the monastery of Teleda, probably came from the massif itself, but Jacob, a disciple of Julian Saba who arrived in Teleda sometime after AD 367 was a Persian and Agrippa, who became hegumen after the death of Eusebius, had been a monk in the region of Edessa before moving to the Antiochene.[558] A later hegumen of the same monastery was Abba (or Abbas), who hailed from a Bedouin family of the Syrian desert.[559] Malchus, the ascetic encountered by Jerome in the village of Maronias in the vicinity of Imma, was a native of Nisibis.[560] In the Apamene, by contrast, the famous monasteries of Nikertai (modern Deir esh-Sharqi) were founded in the 380s by a citizen of Apamea, Agapet, who had been a monk in the desert of Chalcis with Marcianos.[561] The activities of these hermits had an impact both on the regional

[554] The first εἷς θεὸς texts come from Qarqania (Jarry 1982 n. 46, AD 330) in the jebel Barisha, Qatura (*IGLS* II 443, AD 336/7) in the j. Halaqa and Sermada (*IGLS* II 518, AD 341/2) in the plain of Dana.

[555] Theod. , *HR* IV. 2. By the time of Theodoret's writing in AD 444 the sanctuary must have been long out of use as he could write that "on the very top of it [the mountain] there was, long ago, a temple of demons which was highly venerated by those of the neighbourhood" (Τούτου πάλαι κατ'αὐτὴν ἀκρωνυχίαν τέμενος ἦν δαιμόνων ὑπὸ γειτονευόντων λίαν τιμώμενον, emphasis added).

[556] *IGLS* II 652. Ancient Touron was probably modern Turin, a large complex of ruins ca. 10km to the south of the temple in the jebel Wastani. There is evidence to suggest that Christianity had made its way into Turin too:a funerary inscription dated AD 361 is opened by the invocation ὠ Κύριως μον|ὸς ὠ ἀθάνατος (*IGLS* II 653).

[557] The diffusion of Christian iconography was particularly slow in the jebel Zawiyé. In this area of the massif, and most notably in its central core, building and funerary inscriptions with no evident Christian symbology continue right until the 380s (e. g. *IGLS* IV 1506 from Hass, AD 378).

[558] Theod. , *HR* II. 1; IV. 8.

[559] Theodoret (*HR* IV. 12) uses for him the Biblical ethnonym Ishmaelite. Shahid (1989:149ff.) has noted that Theodoret tends to use the word Saracen to refer to Christian Arabs who were federates of Rome while the Arabs living outside the *limes* or, at any rate, those yet to be Christianised were called Ishmaelites.

[560] Jer. ,*V. Mal.* 2. 3. 1 (ed. Leclerc-Morales).

[561] Theod. , *HR* III. 4; Canivet 1977:187-91.

society and economy. Some of them, as Peter Brown has shown, were able to establish themselves as leaders and *super partes* mediators between villages and between the countryside and the city (and, in some cases, between villages and imperial authorities).[562] Also, the popularity of holy men and the spread of monasteries were causative factors in furthering the economic development of the region. As it will be seen in section 4.3, monastic estates played an important role in the agricultural exploitation of the region, and were often equipped with presses that enabled them to engage in surplus production.

In the centuries after the beginning of settlement, as we have argued above (Part III), separate tribal and familial groups gradually evolved into village communities with a simple social structure and leadership centred on a council of elders and task-appointed officials, the *epimelêtai*, who were chosen to act as overseers (and sometimes sponsors) in the building of public and religious complexes. Quite apart from village institutions, moreover, a local priesthood developed in the hilltop sanctuaries. In Late Antiquity, inscriptions only allow a glimpse into the structure of village governing bodies, but it appears that from the fourth century some of these settlements – possibly the larger ones – developed village councils. While the word *boulai* was never adopted, boards of five (*pentaprôtoi*) or ten individuals (*dekaprôtoi*) are attested. These were, in all likelihood, the most influential members of the elders' councils charged with the administration of their communities. The survival of elders' councils alongside these new boards is certain at Huarte (j.Zawiyé), where the north aisle of the local Michaelion is said to have been paved with mosaics "under the elders Eleutherios, Sergios, Thomas, Dorotheus and the *pentaprôtoi* Dorotheus, Ioannes, Thomas, Georgios and the other Thomas".[563] *Pentaprôtoi* are also attested at Kafr Lata (j.Zawiyé) as being in charge of the building of a canopy over the village spring.[564] *Pentaprôtoi* were also almost certainly governing the *kômê* of Dana (j.Zawiyé) at the beginning of the fifth century.[565] The five *bouleutai* attested in the aforementioned (see n. 556) inscription of al-Hosn were also, probably, *pentaprôtoi*.

Larger villages may have instead opted for a board of *dekaprôtoi*, such as the one attested in Hass (j.Zawiyé) in AD 388. The Hass inscription refers to them as the δεκάπρωτοι ἰνδικτιῶνος which may suggest, as Seyrig noted, that they were appointed to be in charge for a 15-year period.[566] The Syriac *Life of Symeon Stylites* provides further insights into the organisation of villages. At several points in the course of the Life, Symeon interacts with "elders".[567] A body of elders governed the village of Kakhushta (a site probably in the jebel Barisha) according to the *Life of Timothy* – an eighth-century holy man.[568] Village "chiefs" are

[562] Brown 1971.
[563] Canivet 1979 n. 5 (= *SEG* 29 1592). The inscription dates to ca. AD 480
[564] *IGLS* II 684 (with Feissel's comments in *BE* 1989 n. 972).
[565] *IGLS* IV 1426. The presence of at least one *pentaprôtos* in this text has so far gone unnoticed.
[566] Tchalenko III n. 39.
[567] *V. Sym. Styl*. §105 (for village elders).
[568] *V. Timothy* §53.

also frequently mentioned in the *Life of Symeon*. It is not entirely clear whether these, who are often referred to as a group, were characterised by equal authority or whether one of them rose above the others. Thus, when Symeon arrived in Telanissos in AD 413, he was received in the monastery of Maris bar Barthon, whom the authors of the Life said to have been the "head of the village" (ܪܫܐ ܕܟܦܪܐ).[569] Soon afterwards, however, we encounter another Maris, who is also said to be "among the chiefs of the same village (i.e. Telneshe)" (ܒܚܕ ܡܢ ܪܫܐ ܕܟܦܪܐ ܗܘ).[570] The fact that RYŠN' rather than RYŠ' was used in the second case may well suggest two different degrees of leadership were intended. Perhaps the RYŠN' were none other than the *pentaprôtoi* or *dekaprôtoi* of the inscriptions, though conclusive evidence is lacking. On the whole, however, the *Life of Symeon* suggests that village leadership lay with village priests. It is in the vast majority of cases the priests who visit Symeon's enclosure to ask for the saint's help on behalf of their communities.[571] In a letter appended to the Syriac *Life of Symeon*, it is again a priest – together with his deacons and with the procurator and leading citizens of the village – who accepts the new rules given to the village by Symeon.[572] The position of leadership enjoyed by the village priest is also confirmed by an episode in the life of Abraham related by Theodoret. A native of the territory of Cyrrhus, Abraham was made patron (*prostatês*) of a large village in the territory of Emesa after having arranged a loan to pay for the village debts with the fisc. Immediately afterwards, a church was built and the villagers refused to have anyone other than Abraham himself as their priest.[573] The rural patron Abraham, undoubtedly the most influential man in the village, was thus also ordained as the local priest – further evidence of the connection between village leadership and priesthood.

The hermit Abraham, however, was also much more than the leader of a village community: as the village patron, he was acknowledged as the mediator between the villagers and the outer world. We have already discussed rural patronage exerted by imperial officials and curials in section 4.1. Abraham, however, represented a new type of rural patron, the hermit who, albeit often hailing from an urban milieu, settled in the countryside and was thus better positioned to understand the grievances of the local populace. Among such hermits, there is no doubt that Symeon Stylites was the most influential and it is with him that we should start. A native of Sis in the region of Nicopolis, Symeon came from a well-off family of pastoralists.[574] Having converted to Christianity, he became around AD 403 a monk in the monastery of Eusebonas, an offshoot of the monastery of Teleda founded by Ammianos and Eusebius which has been located at Burj es-Sab^{c}a.[575] Having later moved north to Telanissos in the jebel Halaqa,

[569] *V. Sym. Styl*. §27. Bedjan 1894 IV:526.
[570] *V. Sym. Styl*. §29. Bedjan 1894 IV:528. BM Add. 14484 has "Marenes" instead of Maris.
[571] *V. Sym. Styl*. §85-7; 130-2. Brown 1971:90.
[572] *V. Sym. Styl*. §130-2.
[573] Theod. , *HR* XVII. 3-4.
[574] On the wealth of Symeon see *V. Sym. Styl*. §9.
[575] Theod. , *HR* XXVI. 5; *V. Sym. Styl*. §13. See also Canivet 1977:169. The monastery of Burj es-Sab^{c}a is normally identified with the offshoot of Teleda founded by Eusebonas and Abibon, two disciples of the

he spent a few years in the monastery of one of the local village chiefs before moving to a nearby hilltop where he had a *mandra* (an enclosure) built for himself (AD 418 onwards). Initially, he chained himself to a rock in the centre of his enclosure, but later – as his reputation grew and pilgrims started to flock in – he decided to move on a pillar where he spent the rest of his life.[576] The evidence suggests that Symeon's rise to celebrity was fast, quickly reaching out to the limits of the Empire and beyond. Even before climbing on his pillar, his fame had reached the Lakhmid king Nuᶜaman I and some of his tribesmen had visited the saint's enclosure and had been converted.[577]

In the following years, pilgrims reached Symeon's enclosure (known as Qalᶜat Semᶜan, "the fortress of Symeon" owning to its conversion into a fortress in the Middle Byzantine period, see section 4.4 below) from all the regions of the Empire and beyond. Whilst Spaniards, Gauls, Britons, Persians, Armenians and even Himyarites from southwestern Arabia flocked in to see the saint; merchants in the city of Rome put Symeon's portrait in front of their shops.[578] The saint's growing fame also meant that he became more influential: in various passages of his lives, Symeon is said to be in correspondence with the imperial authorities and foreign kings; he had also friends in the city council of Antioch and the upper echelons of the imperial service. The impact that this "reputation of power", as Brown famously put it, had on the Syrian countryside was enormous.[579] It also brought about new economic opportunities for the villagers. Soon after the death of Symeon, for example, the village of Telanissos was equipped with inns to cater for the needs of travellers and pilgrims who came to visit the saint's enclosure.[580] Moreover, hints in the lives of Symeon to the value of the saint's blessed oil or *hnana* (a mixture of water, dust and oil) suggest that they may have been the object of trade. The large and diverse crowds that regularly began to visit the massif represented a completely new phenomenon in the history of the region: the pagan hilltop sanctuaries had never attracted people from so far afield.

If Symeon's enclosure (and, after his death, his sanctuary) was the great attraction of the region, the monasteries of Teleda and Nikertai, to cite just the most famous, may have also attracted large crowds of pilgrims. Moreover, in the three centuries following Symeon's death, many other monks followed his example of extreme asceticism. Surveys conducted by the Franciscan Fathers and, more recently (and with more accurate methodologies), by Callot and Gatier and by Schachner have led to identification of no less than nine stylite sites. These were most often accompanied by monasteries, which were established either contextually or

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Eusebius of Teleda. Almost nothing is now left of this monastery, which has been located ca. 300 m west of the site of Deir Tell ᶜAdah (the main monastery). Tchalenko 1953-8 I:134.

[576] Theod. , *HR* XXVI. 10; 12. For the chronology of Symeon's life see Canivet 1977:177-8.

[577] *V. Sym. Styl.* §67. See Shahid 1989:162.

[578] Theod. , *HR* XXVI. 11.

[579] Brown 1976:218.

[580] Tchalenko III n. 16 (AD 471); *IGLS* II 416-7 (AD 479). More recent work on the *via sacra* of Qalʿat Semʿan has unveiled rows of shops:see Pieri 2011.

subsequently to the death of a stylite.[581] Column shafts or bases were seen at Kafr Daryan and Radwe (jebel Barisha), Burdaqli and Sheikh Barakat (j.Halaqa), Deir al-Malik (j. al-ᶜAla) and Srir (j.Srir), Kimar and Qasr al-Brad (j. Semᶜan), at Mousrasras (j.Wastani) and Khirbet es-Serj (j.Doueili).[582] To these we should add those attested only in the literary sources, such as Kakhushta (to which we shall return later) and Qurzahil, which hosted two stylites in the tenth century who later became Jacobite patriarchs.[583] While these ascetics never attained the fame of Symeon the Elder, they are likely to have enjoyed a similar social role in respect to the village communities of the region.

We have already anticipated that prominent monks and ascetics were able to act as rural patrons. What made holy men particularly effective in this role (in comparison with other contenders) was the fact that they combined a local presence (their monasteries or pillars were set in the region) with a great popularity that spread far beyond the geographical limits of the region. Peter Brown even went as far as arguing that, unlike other patrons, the Syrian ascetic was a "non-participant" in society. This meant that those under his protection would not have to make returns for patronal services.[584] However, while the interests of urban patrons such as Libanius and those of holy men like Symeon would have necessarily diverged, Brown underestimated the fact that, as the leading members of monastic communities, holy men could be hardly detached from the earthly preoccupations of their brethren. Not only did they participate in society, but they also had an effect on the economics of the region. The ubiquitous references to donations and offerings in the lives of these saints attest to one way by which the grateful pilgrim turned client was able to offer compensation for the patronage of the holy man. Excavations show that pilgrims brought large amounts of coins to Qalᶜat Semᶜan both as gifts for the saint and to buy eulogies and, possibly, jars of the thaumaturgic *hnana*.[585] A giant oil mill recently identified at the centre of what may have been a veritable oil factory in the eastern periphery of Deir Semᶜan may indeed suggest mass production of olive oil for to be sold to pilgrims.[586]

Moreover, one must not forget that entering the patronage of a holy man implied a complete obedience to the terms that he laid out; the breaching of such terms led to the much dreaded saint's curse. One such case is well documented in the Syriac *Life of Symeon*. A village in the vicinity of Gindaros (modern Jindares in the Afrin valley) relied on a spring for the irrigation of its fields; after one of the villagers had gone out to irrigate his fields on a Sunday, the spring dried up. The villagers immediately realised that this had been caused by the wrath of

[581] Schachner 2010:353-60.
[582] Callot & Gatier 2004:578-81; Schachner 2010 (esp. 382-4). Many of the other stylite sites indicated by the Franciscan Fathers remain disputed: Peña *et al.* 1975.
[583] These were John IV (AD 910-22) and John VI (AD 954-7):Mich. Syr. III, p. 121; 124.
[584] Brown 1976:218. Brown 1971.
[585] More than 800 bronze coins have been found in the excavation of the shops along the via sacra:Pieri 2011:1397.
[586] Biscop 2011:1434-8. On stylite 'economy' see also Schachner 2010 (esp. 363-6).

Symeon, since the agreement they had with the saint forbade that any work should take place on a Sunday. At the same time, the villagers were also guilty of not fining the culprit – a punishment that the *Life* implies to have been in order for this kind of violation.[587] The villagers mustered a large embassy made up of their priest, other village priests and also *periodeutai* until they managed to persuade the saint to lift his curse.[588] The terms that Symeon imposed on the communities which pleaded for his patronage are known from a letter appended to the Syriac life of the saint.[589] Alongside the prescription which made Friday and Sunday holy days, the villagers were to abide to a number of very precise rulings in commercial and labour law: only standard weights and measures should be used; the size of individual holdings respected; hired labourers and servants must be paid a fair salary; and interest on loans must not be above 6%/annum. Punishments are also neatly laid out: the wrongdoer was to be banished by the community and his right to burial withdrawn. Furthermore, anyone who dared apply interests above 6% would be the object of a curse.

The *Life of Symeon* offers us a clear picture of what impact the holy man was able to make on the society of the fifth-century Limestone Massif. The terms under which a village could obtain the protection of the saint were clearly stated. In fact, they were written down and a copy of each agreement was probably kept in Symeon's enclosure. In his capacity as leader and arbitrator of a network of villages, the holy man was not only a patron, he was a law-giver. Moreover, Symeon and the monastic community that grew around his *mandra* were far from being uninterested providers of protection: the blessing of the stylite was rewarded with gifts, and a monastic economy developed around the cult of the holy man. Nor would Symeon have been an isolated case. As we have said above, the example of asceticism that he had set was followed by many monks from the sixth to the tenth century. Until the Arab takeover and beyond (see section 4.4), these ascetics must have enjoyed a social role similar to that played by Symeon in the fifth century. It is noteworthy that sixth-century stylites' columns are only found in connection with monasteries rather than being set apart from the centres of coenobitic life. With their capacity to attract large crowds of pilgrims and with their social role as arbitrators, the stylite enhanced the reputation of an individual monastic community over the others. The coexistence of many holy men in the region in the sixth and seventh centuries is likely to have generated competing networks of patronage, with groups of villages accepting the *prostasia* of one or another stylite.

To sum up this first part: the Christianisation of the Limestone Massif happened at a time of significant social and economic change and was contemporary with an increased stratification of society. The new religion did not, of course, *cause* these changes, but it provided a framework within which different power structures and new social forces could

[587] *V. Sym. Styl* §62.
[588] *Ibid.*
[589] See above, note 572.

develop. On the one hand, the village presbyter emerges as the new head of the village community. On the other hand, ascetics make an appearance as rightful contenders for the role of rural patron, creating a break in the established *status quo* that favoured urbanite landowners as the traditional "protectors" of the interests of the rural communities. The collision between the interests of monks and seculars in the countryside is already adumbrated by passages of Libanius' oration *Pro Templis* (Or. XXX) and finds further confirmation in the hagiographic literature.

The creation of village institutions that went beyond the loosely defined "councils of elders" was accompanied by repeated attempts at establishing set rules to regulate society. The dispositions contained in the "patronage agreement" preserved at the end of the Vatican manuscript of the Syriac *Life of Symeon* testify to the villages' capacity at self-organisation. This need for a more ordered society may well have been the result, as Brown believed, of a booming economy and a growing population. Evidence of this may be found both in the scale of the agricultural production infrastructure (described in detail in section 4.3) and in the instances of social rise and geographic mobility, which arguably prove how the population of the Limestone Massif, far from being isolated in a rural backwater, was able to participate in the wider historical developments of Late Antiquity.

From the fourth century, the epigraphic evidence attests to the movement of locals outside of the immediate boundaries of the region. A first example is that of the epitaph of Barsephones and Antiochos, two villagers of Kafr Haya (j.Zawiyé) who were killed whilst staying at an inn in the vicinity of Laodicea.[590] Unfortunately the inscription does not tell us what had brought them there, but the fact that they were staying at an inn would suggest a short stay, perhaps motivated by commerce. Much different is the case of Abedrapsas from the village of Frikya (j.Zawiyé), who recorded his life achievements in his epitaph:

> "…when, (at) twenty-five years (of age), I was given over to learn a craft, I both acquired this same trade in a short time and furthermore, on my own initiative, I bought myself a domain, no one knowing it, and I freed myself from having to go myself to the city…"[591]

The meaning and implications of the text are quite clear: after a short period of apprenticeship in some unspecified craft, Abedrapsas had developed his professional activity and made a fortune whilst working in a city, which cannot be other than the provincial capital of Apamea. With his

[590] Tchalenko III n. 34 (AD 322 or 342).
[591] *IGLS* IV 1410 (AD 325?).

earnings, he was able to purchase a domain, probably in the hinterland of Frikya, which provided him with an income and freed him of the necessity to take up further commissions in the city. It is possible that Abedrapsas was a sculptor of success, a fact that would explain also the very high quality of the reliefs found in his tomb, which he may have personally carved.

Fig.4.1. A banquet scene carved in the N wall of the *dromos* of the tomb of Abedrapsas (Frikya, j.Zawiyé). The inscriptions identify the different figures, whose heads have been hammered. From the left: Eirene, a slave; Amathbabea (wife of Abedrapsas) and Amathbabea minor (daughter of the couple); Abedrapsas; and the *Agathe Tyche*, carrying a cornucopia. On top of the relief a badly hammered frieze, which may portray scenes of the life of Abedrapsas, is still visible. Photograph by Griesheimer (1997: 192).

Of these, the left half of a badly hammered frieze carved on top of a banquet scene in the *dromos* of the tomb (Fig.4.1) may represent the successful conclusion of one of Abedrapsas's commissions: in it six figures, the last two carrying some heavy load, appear to be moving towards a seated figure. These could be, as Prentice noted, Abedrapsas and his five sons (whose busts are carved on the opposite wall of the tomb) consigning the product of Abedrapsas's craft to an unknown commissioner, probably an Apamene dignitary.[592]

The decorations of Abedrapsas's tomb also allow us a glimpse into the household structure of this prominent citizen of the massif at the time when his tomb was built: a row of ten heads depicts five couples, of whom only the men are named in inscriptions carved above the relief. These must have been the five married sons of the head of the family. Further on, two

[592] *AAES* II:278-9; *AAES* III n. 242 (commentary).

medallions include a single woman, possibly an unmarried daughter of Abedrapsas and another couple, both of whom are named, a fact that suggests that Abedrapsas's connection was with the woman, Barachous, possibly another of his daughters. Finally, the banquet scene depicts the household in its last phase, when the central nucleus of the family only included Abedrapsas and his wife, their youngest daughter and a household slave named Eirene.

What makes the story of Abedrapsas significant is the fact that it shows how some villagers did not hesitate to move to the nearby cities to improve their social and economic condition. Abedrapsas, with his theophoric name and his devotion to the local mountain god, was hardly a representative of the urban Hellenised milieu. Yet, Abedrapsas' life expectations (and artistic taste) corresponded to those set out by the classical tradition: the coronation of his life's achievements lay in relinquishing his trade and his subsequent acquisition of a landed estate, the revenues of which provided his livelihood. Cases like that of Abedrapsas suggest that points of contact existed between urban and rural modes of life.

Abedrapsas attributed the success of his life to the help of his ancestral god, the unnamed "god of Arkesilaos". To this god and to other local deities he must have no doubt shown his gratitude if he could boast, in another inscription of the tomb, that he and his wife had "absolved all vows" made to their πατρώϊοι θεοί.[593] Benefactions to the local temples would have probably taken place, whether in the form of offers and sacrifices or by sponsoring new buildings in the sacred precincts.

Attachment to the native communities and devotion to the local centres of cult do not disappear with the Christianisation of the region, which progressed slowly during the second half of the fourth and the early fifth century.[594] This is shown by the discovery of silver treasures donated to local churches and monasteries by individuals who had left their native villages for a career in the imperial bureaucracy or in the church. The most famous cases are those of the treasures of Kaper Koraon, Phela and Beth Misona, three villages probably located in the central jebel Zawiyé.[595] The small treasure of Phela belonged to the local church of the Theotokos and comprised at least seven objects. These include a paten which was donated by Agathangelos and Theodore, this latter said to be an *excubitor*, a palace guard at the direct

[593] *IGLS* IV 1409.
[594] On the progress of Christianisation of the massif see Trombley 1993-4 II:247-312.
[595] For the objects see Dodd 1961 nos. 8, 13, 18, 20-22, 27, 29, 34, 80, 89, 98; ; *Ead.* 1968 (for the stamped objects); Mundell Mango 1986:68-236. The identification of Kaper Koraon with modern Kurin (in the Antiochene section of the jebel Zawiyé), proposed by Mango (Mudell Mango 1986:30-1; 1988:165-7) and for long remained unchallenged, has been criticised by Feissel and Griesheimer on the back of an epitaph, as yet unpublished, found in the vicinity of Mghara (in the Apamene section of the same jebel) and giving the toponym ἐποίκιον Κοραων. See *SEG* 44 1322; *BE* 1996 n. 474. If accepted, this view would identify the recipient of the Hama treasure – which contains the ojbects that refer to Kaper Koraon – with a church situated ca. 15 km south of Stuma, were the Stuma and Riha treasure were allegedly found. However, the chronology of discovery of the Hama treasure mirrors too closely that of the Stuma and Riha treasures for them to be unrelated. Morover, Mango convincingly argued that the toponyms *Kaper Koraon*, *Phela* and *Beth Misona* – present on the silver objects – should be identified with Kurin, Feilun and Msibine (*metathesis* for Beth-Misin) in the hinterland of Stuma (Mundell Mango 1988:167). The likelihood that the treasures belonged to three churches situated in the same neighbourhood makes it difficult for Kaper Koraon to have been situated 15 km to the south of Stuma.

service of the emperor in Constantinople.[596] To the same treasure also belonged the silver seal of the bishop John of Keranias, which Dodd identified with Kerynia in Cyprus.[597] This may have been a local priest (possibly the presbyter John who donated a silver cross which was also part of the Phela treasure) who secured a bishopric later in his career.[598]

The largest treasure is that which belonged to the church of Sergios at Kaper Koraon, which (according to Marlia Mango's reconstruction) received donations of at least 54 silver objects between AD 540 and AD 640.[599] Inscriptions on the silver objects attest to some fifty donors, most of whom appear to have belonged to four or five main families who made donations over the course of a century.[600] Although the majority of benefactors are only known by their names, four of them bore official titles. Of these, two were low rank officials: Symeonios, who donated in AD 547-50 a chalice worth slightly more than two solidi, was a *magistrianos*, i.e. an *agens in rebus* working under the *magister officiorum*; Sergios, who gifted a lamp and two patens around AD 574-8 was a *tribounos* and *argyroprates*, two titles that, when used together, may suggest a position in an imperial *fabrica*.[601] Of the remaining two benefactors one, Amphilochios, was an archbishop, possibly of Apamea. He donated an unstamped paten worth ca. 12 solidi.[602] Finally, Megas (who belonged to one of the long-established families of benefactors of the church of Sergios at Kaper Koraon) was no doubt the most important individual recorded in the offerings. His career has been the object of several studies.[603] It is generally believed that he started off as an official in charge of supervising the quality of silver at Constantinople or Antioch around AD 577-8.[604] Early in the reign of Maurice (AD 582-602), however, he made a successful career: two ewers donated to St Sergius of Kaper Koraon in this period show that he had been consul and was curator of an imperial estate much like his near-homonymous Magnus discussed above with regard to the *domus divina* of Hormisdas.[605] Around AD 587-8, when he figures as the addressee of a letter by the Merovingian king Childebert, Megas's rank was only inferior to that of the *magister officiorum* and the *quaestor sacri palatii*.[606] His important position at court is also reflected in the value of his donation to the church of what was, in all likelihood, his village of origin: the two ewers that

[596] Mundell Mango 1986:233-4.
[597] Dodd 1974:30.
[598] Discussed in Mundell Mango 1986:236-7.
[599] Dates are based, primarily, on the classification of stamps proposed by Dodd (1961; 1968) and revised, for individual objects, by Mango (1986 *passim*). Only 15 of the 54 objects of the Kaper Koraon treasure bore stamps.
[600] For family stemmata see: Mundell-Mango 1986:9; *Ead*. 1988:168-70.
[601] Mundell Mango 1986 n. 1 (Symeonios); nos. 33-4; 36 (Sergios). It is perhaps because of his position in a fabrica that produced silver objects that Sergios was able to obtain objects that bore the official *pentaphragistos dokime*. For a discussion of the latter see Dodd 1961:23-35; Feissel 1986:132-42; Mundell Mango 1988:171-2.
[602] Using the equivalence of 4 solidi to the silver pound as in Mundell Mango 1988:170.
[603] PLRE IIIB *Megas* 2; Dodd 1968:148-9; Feissel 1985:470ff.
[604] As attested by his name on the hexagonal stamps of a paten and lamp (or cup) donated by Sergios (Mundell Mango 1986 nos. 33-4).
[605] Mundell Mango 1986 nos. 37-8. The stamps are discussed by Dodd 1968:145-6.
[606] See discussion in Feissel 1985:471ff.

he donated under Maurice weighed together more than 4 kilograms of silver equivalent to almost 52 solidi.[607] To this we should add his earlier donation, a paten worth ca. 11 solidi, similar in value to that gifted by Sergios the *argyroprates*. Other donations were of significantly smaller value and likely reflected the conditions of well-off villagers willing to invest part of their revenue in benefactions to the local ecclesiastical community.

Other prominent individuals are attested as financers of building projects. At Brad (j.Sem^{c}an), a member of the prestigious *schola* of the *scutarii clibanarii* financed, together with his brothers, the building of the vault in the church of Julianos while the *magnificentissimus comes* Flavius Paulos (or Gloulos), an important military commander, sponsored the building of a church in Khirbet al-Khatib (j. Barisha) in AD 473/4.[608] In 525/6 a church – or at least part of it – was built at al-Bara (j. Zawiyé) on initiative of Pantaleon who was a *commerciarius*, an office connected to tax-collection on trade which was held by some of the most influential officials in the imperial bureaucracy.[609] In 563, the track of beaten earth linking the monasteries of Deir Debbani and Deir Sobatt (both in the j. Zawiyé) was paved with limestone slabs through the sponsorship of an Agathonikos who bore the rank of *comes*.[610]

As Marlia Mango has observed for the benefactors of the church of St Sergius of Kaper Koraon, the prominent individuals who occasionally appear in the epigraphic record are likely to have been natives of the villages of the massif who had made successful careers in the imperial bureaucracy while at the same time maintaining their ties with their native communities.[611] Like Abedrapsas, it is likely that Megas and the other officials of the Kaper Koraon treasure would have owned estates in the hinterland of villages from which they hailed, though definitive evidence is lacking. One may imagine that their success in the imperial system may have enabled them to expand their land holdings.

If cases of locals having glittering careers in the imperial bureaucracy and church, such as those that Megas and Amphilochios enjoyed, must have been few, the inscriptions shed light on a great number of lower imperial bureaucrats who made their way back to the massif, where they acquired lands or were buried. This was the case, for example, of an Alexander son of Aidesios who, after having served, presumably at Antioch, as a *censitor* and *cancellarius* for the provincial governors, was buried in the village of Riha (Antiochene, jebel Zawiyé).[612] Flavius

[607] Mundell Mango 1986 nos. 37-8.
[608] Tchalenko III n. 39; *IGLS* II 553. During the fifth century, the title of *vir magnificentissimus* (μεγαλοπρεπεστάτος) was borne by some high-ranking military and civil officials. Flavius Paulos may have been a military *comes* like PLRE II *Diogenes* 7.
[609] *IGLS* IV 1473. Among the many examples of *commerciarii* who rose to the highest ranks of the imperial administration we find Magnus, the curator of the imperial domain of Hormisdas and former consul and *comes sacrorum largitionum* under Justin II (PLRE IIIB, Magnus 2).
[610] Tchalenko III n. 35; *SEG* 20 367. The *comitiva* was established as an order under Constantine and divided into three grades, each of which corresponded to a different level of prestige (Jones 1984 I:104-5). While the title of *comes primi ordinis* remained highly prestigious down to the sixth century, the lower grades were much devalued by this time (Jones 1964 II:544).
[611] Mundell-Mango 1986.
[612] *IGLS* II 687 (AD 422).

Eusebius, a *singularius* (a subclerical position in the office of the praetorian prefect) bought land and built houses in the mountain village of Dar Qita (j.Barisha).[613] At Keneysseh in the jebel Wastani, a rock-hewn tomb was built for Flavius Kyriakos, who bore the rank of *lamprotatos*; although by 415, when the tomb was built, this title had lost some of its original prestige, the very fact that a man of senatorial rank had decided to be buried here is significant.[614] Perhaps he and his family had owned an estate in the fertile Rug *polje*, which opened in front of Keneysseh. Such cases of upward social mobility show that the conditions existed for individuals belonging to the rural communities of the massif to quit their native villages and improve their social standing. In the late antique period, this drive for improved economic and social conditions coupled with strong demographic growth led to a steady emigration that we are able to record from the late-fourth to the second half of the sixth century. This phenomenon, which was particularly intense in the central jebel Zawiyé, is almost entirely reconstructed through funerary inscriptions which give details concerning the origin of the deceased.

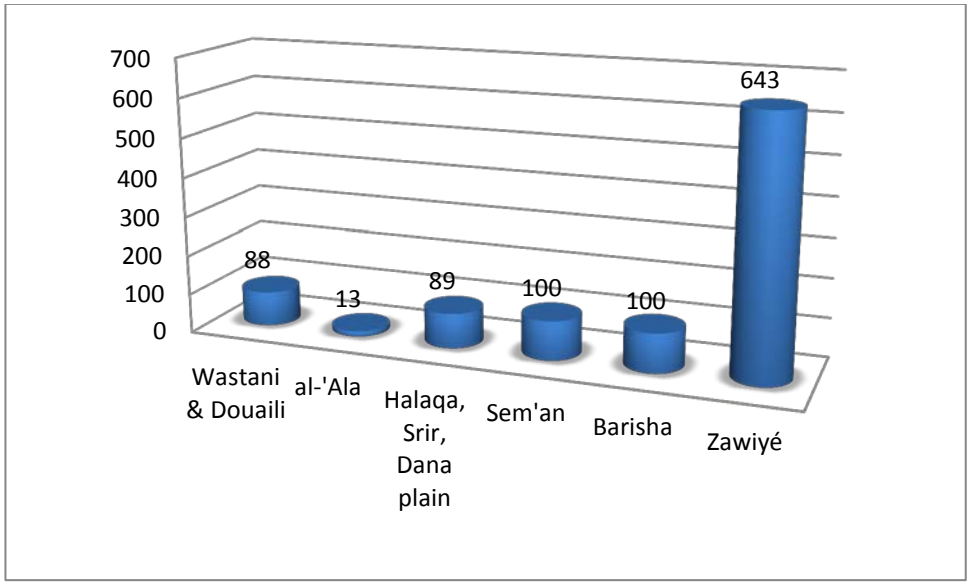
Appendix 1 lists all of the epigraphic attestations of natives of the Apamene and Antiochene who resided abroad. The main feature of these texts is that they contain the village of origin of the deceased and, in the majority of cases, the city's *territorium* to which the settlement belonged. Only few are dated, though for several a rough chronological framework may be established. Of a total of 57 entries, 33 can be assigned to the late-fourth to mid-fifth century, ca. 10 are of sixth-century date while the others cannot be given a precise chronology. Villagers of the Apamene were particularly numerous (42 out of 57). The fossilisation of the ancient Aramaic toponyms in the region has allowed scholars to identify as many as twenty of the ancient place names in the modern toponymy of the region.[615] As Map 2 shows, with the exception of four sites in the northern chains, the remaining identified toponyms all lie in the jebel Zawiyé and its environs. The bigger impact that emigration seems to have had on the jebel Zawiyé may be explained with local differences in the patterns of demographic growth in Late Antiquity. Dated inscriptions may provide an order of magnitude as to the different rates of settlement growth in the chains of the massif. The chart below (Fig. 4.2) indexes the number of dated inscriptions in period 1 (AD 1-284) and expresses growth in dated inscriptions in period 2 (AD 285-499) as percentage points of the indexed number of texts in period 1. The dataset

[613] *IGLS* II 542-3. The interpretation of σινγ() as σινγουλᾶρις is due to Trombley (1993-4 II:268). This seems more convincing than Prentice's σινγ(λητικῷ) (for which see PUAES IIIB 1075) reprised by Mouterde.

[614] Peña *et al.* , *Wastani*:97. On the transformations within the senatorial rank in the fifth century see Jones 1964 II:528-9.

[615] The main study of the topography of Syria remains Dussaud (1927). Important are also the studies of Mordtmann (1887) and Honigmann (1923; 1924). With regard to northern Syria and, in particular, to the toponymy that emerges from the inscriptions of Syrians abroad, Denis Feissel's studies are of key importance: Feissel 1980; 1982a; 1982b; 1991. The identification of *Nikertai* with Deir esh-Sharqi, proposed by Fourdrin (1993) remains somewhat disputed.

includes the majority of dated texts – whether Greek or Syriac – and all typologies of texts (building, funerary, salutations, date only):



	Wastani & Doueili	al-ᶜAla	Halaqa, Srir & Dana plain	Semᶜan	Barisha	Zawiyé
AD 0-284	8	8	18	15	23	7
AD 285-499	15	9	34	30	46	52

Fig.4.2. Repartition of dated inscriptions (AD 0-499). The bar chart indicates the growth in the number of dated inscriptions in Period 2 (AD 285-499) from each sub-area as a percentage of the indexed number of dated inscriptions per sub-area of Period 1 (AD 0-284). The table lists the actual number of dated texts from each sub-area in the two periods.[616]

Growth in the number of dated inscriptions in comparison to the earlier phase appears to have been significant everywhere, with the exception of the jebel al-ᶜAla, but reaches outstanding proportions in the jebel Zawiyé, where the number of dated texts rose almost sevenfold.[617]

The extraordinary growth of dated inscriptions in the jebel Zawiyé is likely to indicate a demographic boom (though there is clearly no straightforward relationship between epigraphic activity and population) occurred in this area between the fourth and fifth centuries and which may have triggered the wave of emigration recorded in the inscriptions of Syrians who died abroad. The presence of communities of Syrian expatriates in the Roman Empire has been traditionally explained with their involvement in trading activities and money-lending. Evidence for the latter is to be found in the literary sources, in which the ethnic *Syrus* is often employed as a synonym of usurer: particularly famous are Sidonius Apollinaris ironic portrayal of mid-

[616] Multiple inscriptions from the same building dated to the same year have been excluded along with texts of uncertain dating. I have also excluded the Tetrarchic boundary markers.
[617] The jebel al-ᶜAla represents something of an exception in virtue of its very limited record of dated inscriptions. Only 23 dated texts survive from this area of the massif (a mere 5% of the total).

fifth century Ravenna (*foenerantur clerici, Syri psallunt*) and Salvian's *siricorum omnium turbas*, whom the author denounces to have occupied large areas of all cities.[618] Syrian traders are also recorded in Gaul by Gregory of Tours and his testimony is confirmed by the contemporary penetration of Syrian wares in the area.[619] If trade must have been an important reason for emigration, it would be wrong to explain migration only as a function of interregional commerce. First, the ethnic *Syrus* is too vague and too widely used (from the Phoenician coast to the Euphrates, from the Hawran in southern Syria to Commagene in Asia Minor) to allow any significant association between the practice of trade and money-lending – as attested by the literary sources – with specific communities. Even when we turn to the epigraphic evidence, details concerning the city or village of origin of the expatriates are rare.[620] Second, the few instances of migrants for whom the occupation is known show that trade was only one of different possible activities entertained by Syrians abroad. A snapshot of the heterogeneous composition of Syrian expatriate communities may be obtained by looking at the necropolis of Korykos in Cilicia. This town is exceptional in that it has yielded more than 450 funerary inscriptions with details concerning the occupations of the deceased. Of these, six (nos. 39-45 in Appendix 1) can be attributed to natives of the massif.[621] While three of these were involved in commercial activities (respectively a *trapezitês*, a banker, and two *linopôlai*, linen merchants), one was a tavern-keeper (*kapêlos*) and another worked as *ponderator*, a public service involving the weighing of coins paid as tax. With the exception of the linen merchants, who may have travelled to source their goods, the inscriptions of Syrians from the massif suggest that they were integrated in the host community rather than being itinerant traders. Moreover, none of the many wine and oil merchants attested in Korykos seems to have been a native of northern Syria. This does not mean, of course, that Syrian oil and wine did not reach Cilicia. Indeed, Libanius himself had some of his wine (no doubt produced on his estates) sold in Tarsus.[622] Yet, the absence of wine and oil traders of Syrian origin in Korykos suggests that the local expatriate community had no role in the commercialisation of these commodities within Korykos.[623] While there is little doubt that Syrian traders were engaged in commerce along the Cilician coast, there is no necessary connection between the Syrian expatriate community of Korykos and dealers in Syrian products. Consequently, one should be careful to highlight the complexity of the phenomenon of emigration, which cannot be simply explained as an effect of the expansion of overseas trade of Syrian commodities.

[618] Sid. Apol. , *Ep*. I. 8; Salvian, *De Gub*. IV. 14 (PL LIII, 87).
[619] E. g. the merchant Euphron (Greg. Tours, *Hist. Fr*. VII, 31); on Syrian wares, and especially LR amphorae used for wine trade see Pieri 2005a.
[620] The most comprehensive lists of oriental expatriates are found in Solin 1983; Avramea 1995. For northern Italy see also Ruggini 1959; Boffo 2004.
[621] On the variety of occupations attested in the funerary inscriptions of Korykos see:Patlagean 1977:158-70; Trombley 1987.
[622] *Ep*. 709 (AD 362).
[623] For wine and oil traders in Korykos see Trombley 1987:19.

At other sites, Syrian expatriates appear to have become part of the local clergy or of the imperial administration. This is the case of two priests attested respectively in Salona and Tridentum (Trento) and of an Anatolius, *praepositus thesaurorum* at Rome.

Fig.4.3. Distribution of funerary inscriptions of Syrians from the massif (4th-6th c. AD)

While little else can be said about the profession of other migrants, inscriptions allow important insights into the character of migration. Thus, several texts – and especially those from northern Italy – show that emigration often involved entire family groups: brothers are sometimes buried together while in other cases the epitaphs contain dispositions left by the deceased to their family.[624] This evidence suggests that emigration had often a permanent character and puts into question theories which identify the migrants as itinerant traders. Interpreting these communities as soldiers or contractors working for the army – a theory based primarily on the observation that burials of migrants are occasionally found in the same archaeological contexts as those of veterans – may be equally misleading.[625]

Therefore, the epigraphs of migrants show that emigration from the massif was a complex phenomenon, which traditional views have failed to properly explain. As far as the occupation of migrants is concerned, long-distance trade and enrolment in the army have been overplayed. The little evidence that we have suggests a variety of professions, which included

[624] For family groups see e. g. nos. 16, 20, 25, 41, 43 in Appendix 1.

[625] This view goes back to Ruggini (1959). It was later supported, with specific regard to expatriates from the Limestone Massif by Liebeschuetz (1972:81-2). More recently, Vannesse (2011) has advocated that Apamenes based in northern Italy were contractors working for military detatchments. More than with the army, however, communities of Syrians in Italy seem to have had a particular association with ecclesiastical spheres that promoted the cults of relics of oriental origin (e. g. the cult of the Apostles at Concordia and that of the Maccabaean brothers likely practiced at Florence).

careers in the imperial or urban government (e.g. Anatolius, *praepositus thesaurorum* in Rome or Paulos, *zygostatês* in Korykos), in the clergy, or small commercial activities. In general, the act of migration appears to have been definitive and to have involved entire familial groups. Unlike the benefactors of Kaper Koraon, little suggests that these migrants maintained a direct with their native communities. Yet, the ubiquitous indication of the village of origin in the funerary epigraphy of the diaspora suggests that an emotional tie to the motherland survived intact and may have had some significance in the internal organisation of migrant communities abroad. Finally, while emigration from the massif continued steadily through the late antique period, its peak in the late-fourth to mid-fifth century is significant and must necessarily be connected to the changing demographic and economic outlook of the region. Nevertheless, there is little reason to believe that the migrants were a mass of impoverished peasants fleeing poverty and overpopulation – as Noy argued for the Syrian immigrants of Rome.[626] Inscriptions and burials – often in the form of expensive *arcae* as in Concordia, Salona and Treviri – conjure up a group of well off individuals who worked as traders, businessmen and priests. The very nature of the evidence, of course, is likely to be representative of only the wealthiest migrants, the poorer immigrants opting for cheaper, anepigraphic burials. Even with this *caveat*, the evidence suggests that migration had an impact across the entire social spectrum of the massif and did not regard only a mass of impoverished peasants forced to emigrate by the iron laws of Malthusian demographics.

To conclude: between the fourth and sixth century, the entire region of the Limestone Massif witnessed considerable social transformations that led to the emergence of a more stratified society. The balance of power in the region was only indirectly controlled by the imperial authority through the proxy of regional power brokers such as rich urban dwellers and imperial officials with interests in the countryside or local holy men. Individual communities, headed by their priests and village leaders actively sought out the intervention of these individuals to solve internal disputes or to act as mediators with other villages or with the imperial administration. Holy men and other power wielders were thus at the centre of largely informal power networks, whose shifting fortunes were largely dependent on their ability to deliver the results expected from them by their clients. For their part, they stood to gain both financial (whether agreed-upon sums, gifts or donations) and social rewards (prestige, authority) which in turn allowed them to further extend their influence. If the stratification of society was likely a consequence of improved economic conditions and demographic growth, the very same causes explain the higher social mobility of which many examples have been provided above. The drive for an improved social standing also led many Syrians to emigrate. During Late Antiquity, therefore, rural settlement in the Limestone Massif evolved into a far more complex and prosperous society than ever before. This region – which had previously remained somewhat secluded – opened up to the rest of the Empire and became heavily intertwined in the

[626] Noy 2000:88.

social and economic pattern of late antique Oriens. I now turn to the analysis of the economic conditions of the Limestone Massif in Late Antiquity.

4.3 Late antique economy

In this section, we will present an analysis of the rural economy of the massif beginning with its actors: the peasant family, the village and the monastery. We will then look at whether the economy of the massif may be regarded as a market economy. Finally, we will assess the extent to which this region was integrated into wider commercial networks. Overall, the evidence that will be presented in this chapter conjures up an economic regime based on small-to-medium sized farms which proved to be the backbone of rural settlement up to at least the ninth century.

As for the communities that settled *Gaulanitis* and *Auranitis*, the family – or the extended family, the clan (*genos*) – was the basic unit of economic exploitation in the Limestone Massif. The composition and size of the standard peasant family – or the standard household, for that matter – is very hard to gauge from the limited evidence at our disposal. Funerary inscriptions belonging to shared tombs do occasionally shed light on family and household composition. The case of Abedrapsas is, once again, the most significant, though it is hard to say how representative it might be of the "standard" village family. Abedrapsas's family is represented in the reliefs of the *dromos* and above the *arcosolium* of his tomb. On one wall of the *dromos*, Abedrapsas and his wife Amathbabea are depicted together with their younger daughter Amathbabea *minor* and a female slave, *Eirene*. Not surprisingly, slaves are rarely attested in the epigraphic record of the massif: in those rare instances, it is apparent that they were always household slaves, probably charged with domestic labour in the terms recently discussed by Kyle Harper.[627] Opposite this scene, the busts of five couples are carved. To these, we must add the figure of a woman and another couple carved in either spandrel of the *arcosolium* of the tomb. Names are inscribed above the heads of the males and above that of the lone woman. It is very likely that the people named were part of Abedrapsas's family, possibly his sons and his unmarried daughter – as Butler and Prentice remarked.[628] One of them, however, is said to be the "son of Barachos" and is thus likely to have been a relative of the family.

Overall, the reliefs of this tomb may hint at a particular household arrangement that found its archaeological counterpart in the large courtyard house whose presence is ubiquitous

[627] Harper 2011:107-8. Slaves in the massif:Peña *et al.* , *Wastani*:62 n. 1; *IGLS* II 650. In both cases the slaves build tombs for themselves out of their masters' funds, which in itself suggests a very close relationship with them.
[628] *AAES* II:278ff. See also comments to *AAES* III nos. 241-7.

in the massif. The standard components of this dwelling complex change only slightly across rural Syria. It comprised, in the majority of cases, a large walled courtyard whose gate was also the only access to the dwelling complex. Opposite the entrance to the courtyard, a two-storey building, often preceded by a portico contained both the working and dwelling quarters: mangers found on the ground floor (and sometimes accommodated within the "window walls" encountered in Hawrani houses) suggest animal rearing; kitchens, signalled by the finding of hearths and ovens, were either located in the working quarters or in separate, open-air yards built beside the house. Very little is known about the dwelling quarters, located on the upper floor(s), which lack any particular characterisation: accessed via a portico or balcony, they were partitioned in a way such as to mirror the arrangement of the ground floor. More than in any part of the Roman East, the private architecture of the massif displays a high degree of standardisation: as Tate noted, the typical dwelling was built by replicating a basic module made up of two superimposed rooms, of square or rectangular plan, with ceilings sustained by arches or pillars.[629] While the majority of dwellings comprise 2-3 such modules, large houses in the jebel Zawiyé can reach a staggering 13 rooms per storey. It is a typical feature of rural housing in the East that courtyards are external rather than being enveloped by buildings: dwelling quarters and other structures such as towers and galleries are generally arranged on an L or U plan, the remainder of the space being closed off by the walled yard. Conversely, *atrium* houses are rare. In the massif, they always appear to be the result of successive extensions of earlier dwellings, such as in the case of the "peristyle house" of Fidre.[630]

The standardisation of private architecture makes it difficult to ascertain how the domestic space was used and occupied. In particular, the extent to which families, households and housefuls (the group of people who share the physical space of a house) converged in a given dwelling remains highly problematic.[631] Modern scholars have generally followed Tate who argued that, on the whole, each module (i.e. the two-storey dwelling of one room per floor) housed a nuclear family.[632] Using Peter Laslett's categorisation of households, Tate attributed houses comprising 1-2 rooms (per storey) to simple family households (i.e. nuclear families with or without servants) or extended family households (i.e. simple households plus other relatives). Houses of 2-3 rooms would have been occupied by extended or multiple family households with lateral extension – mostly *frérèche* households, i.e. co-resident siblings with (or without) their conjugal families. Finally, houses of 4 to 13 rooms would have been shared by multiple family households (with all the possible extensions) or by unrelated households (all together making up a houseful).[633]

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[629] Tate & Sodini 1984; Tate 1992:30-42; 56-8. See also the detailed study of Deir Sunbul in the j. Zawiyé:Tate & Naccache 1995. All houses were provided with sloping roofs made of wooden beams and ceramic tiles. In this, they differ from the private architecture of the Hawran (see above, 2. 2. 1).
[630] Ellis 2000:89-97. For the house of Fidre see Tate 1992:57-8.
[631] For the definitions of family, household and houseful see Laslett 1972:23-39.
[632] So, for example, Ellis 2000:91.
[633] Tate 1992:263-4.

Shared occupation of dwellings was doubtless common practice in the massif, but the extent to which an identity existed between number of rooms and households – as Tate advocated – remains difficult to ascertain. This argument rests on the observation that, in at least some houses, rooms on both storeys were not internally connected – thus suggesting that each was occupied by a separate familial unit. Three problems exist with this view. First, the limited preservation of upper storeys makes it difficult to know to what extent the lack of internal communication between rooms on the ground floor was mirrored by a similar arrangement in the upper storey. Second, the isolation of modules appears to have had a wider application on large houses (comprising 4+ rooms per storey), which, however, represent only a minor percentage of housing in the massif: in the villages surveyed by Tate, they make up between 13% (in the j. al-ᶜAla) and 33% (in the j. Zawiyé) of all houses. Smaller houses, instead, tended to feature room interconnection. Third, the lack of internal communication, while important for its implications regarding the use of domestic space, does not necessarily have a bearing on household structure. In Dehes, excavation has revealed that walls were sometimes erected as separations of already distinguished functional compartments. Complex 104 is particularly instructive. From its first phase in the mid-fourth century, the main room was divided in three sections by two sets of two lengthwise pillars. A sounding (B III) dug in the proximity of the western pillars has shown that mangers were placed in two of the three intercolumnations – the central one being left void for passage. While the central part of the room was thus used as a stable, the stratigraphy in the western (B II) and eastern (B VIII & IX) sections of the room suggests a functional distinction: the thick layer of yellow soil (layers 5a/b) that was left to accumulate in the stable is almost entirely absent in the other two sectors.[634] The assumption must be that the two side sections of the room were used for rather different purposes. Indeed, the abundance of amphora shards (especially NSA I and II, for which see below) in soundings B VIII and IX would suggest that this part of the ground floor was used as a storage.[635] The blocking of the passage between the western pillars and the opening of an independent door in the north wall (occurred in the early 7th c.) should therefore be seen as in line with the long-established functional separation of this western sector of the room from the stable (in the centre) and the storage space to the east.

[634] Sodini *et al.* 1980:102 & fig. 125.
[635] Sodini *et al.* 1980:106 & fig. 128.

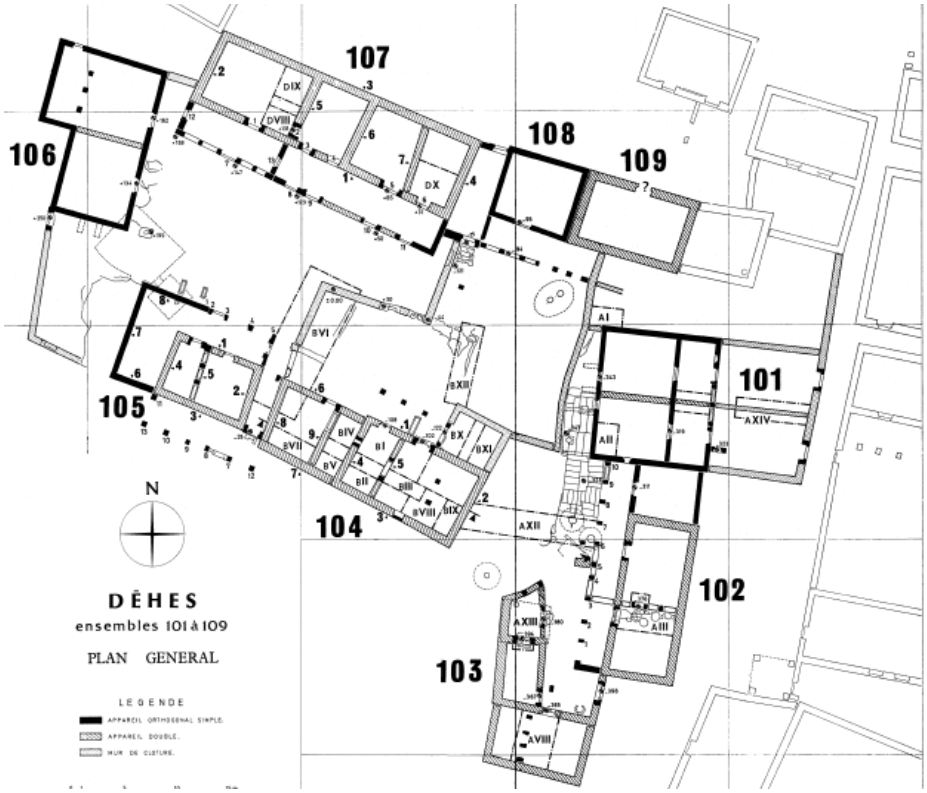

Fig. 4.4. Dehes, complex 101-9 (Sodini *et al.* 1980: fig.5)

The example of complex 104 should serve as a *caveat* against arguments which are too ready to detect multiple households from house plans. Shared premises can only be identified with certainty when houses appear to have undergone a complete partition. This is what happened to complex 101 in Dehes, where the house and courtyard built in orthogonal masonry were at some point split by an EW double stonework wall that divided in halves the dwelling space, the portico and the courtyard.[636]

The question of co-resident households, however, cannot be limited to partitioned houses. The layout of courtyards revealed by the excavation of Dehes 101-8 suggests that these were, in the majority of cases, shared between two or three semi-independent dwellings (Fig. 4.4). Cisterns could also be held in common: the sloping paved area west and southwest of house 101 – which drew rainfall water into an underground cistern – extended to the front of complex 102, suggesting a shared use of the structure. The privileged relation between complexes 101 and 102 is, on the other hand, confirmed by the building of a room that joined the two structures. Shared ownership and use of undivided premises is also known from Egypt, where house sale contracts speak of portions held κοινὸν καὶ ἀδιαίρετον, "in common and undivided" and where house-to-house census lists attest to a large number of co-resident households.[637] Similarly, in a document recording a partition of inheritance in Nessana in the Negev, two brothers divided a two-storey courtyard house in halves, but maintained shared and

[636] A similar partition is also recorded in Deir Sunbul (j. Zawiyé) for houses 3 and 4. See Tate & Naccache 1995:377.
[637] On house occupancy in Egypt see Alston 2002:67-78; *Id*. 1997. Hobson 1985.

undivided ownership of the vestibule, courtyard and porticoes leading up to the second storey.[638] Finally, a document from Dura Europos records the partition of two houses, with the heirs holding some areas in common (courtyard, vestibules and balcony), but also entitled to close off or open new doors in their allotted shares.[639]

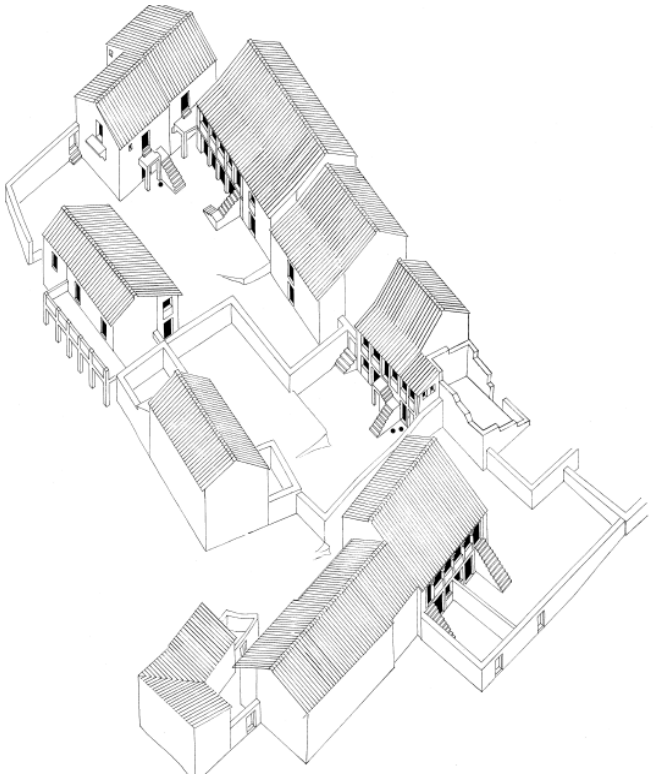

Fig. 4.5 Suggested reconstruction of Dehes 101-8 (Sodini *et al.* 1980: fig.243)

Although we have no means to ascertain whether the patterns of house ownership and occupancy that emerge from the papyri should also apply to the villages of Syria, the plans of houses and the archaeological evidence for internal subdivision of dwellings (such as in the case of complex 101 in Dehes discussed above) make it a strong possibility. Complexes such as the "Ilot 1" of al-Bara or houses such as Sergilla X and Mugleyya 95-6 – with their shared vestibules and large, undivided courtyards suggest precisely the same kind of shared use of common areas.[640]

The nature of the relationship between co-resident familial groups in the massif remains unclear. Building inscriptions that bear references to the inhabitants of houses are rare and difficult to interpret. Some observations may, however, be made. A Syriac text from Babisqa dated to AD 547/8 documents the building of a portico that fronted a long house of several

[638] *P. Nessana* 22 ll. 23, 30-1 (AD 566).
[639] *P. Dura* 19 (AD 88/9).
[640] *PPUAES* IIB:129-30 (Sergilla X); Tate & Sodini 1984:figs. 34 (Mugleyya) & 51 (al-Bara).

rooms.[641] The inscription is somewhat obscure: it documents the seemingly consequential purchase of gardens (ܓܢ̈ܢܐ) by the "brothers" Sargon, Theodoros and Bacchos and the building of the portico (ܐܣܛܘܐ) by another "brother", Yohanna son of Zakkai. It is likely the object of the purchase had been the land in front of the house, where the portico was built and the communal courtyard laid. The inscription may suggest that this house was shared by a *frérèche,* a household made of siblings and their nuclear families. However, the word "brother" (ܐܚܐ) is unlikely to refer to blood brothers here. As Littmann rightly noted, Yohanna – who commissioned the inscription or wrote it himself – does not extend his patronymic to the others. Consequently, Littmann interpreted "brother" as associate, believing a commercial enterprise of some kind to have existed between the four men. But ܐܚܐ is also used to indicate clan affiliation and a sense of belonging to the same group. Whether such sense of communal belonging arose as a consequence of or was the reason for co-residence remains impossible to decide. A more traditional *frérèche* household is instead encountered in the *Life of Timothy* of Kakhushta. Several passages of the *Life* hint at his sister and brothers with their wives (and children) living together in the same premises and tend to confirm the impression of the archaeological evidence that the village house contained complex households.[642]

We have so far looked at the plan of the village house and at its social role. It will now be appropriate to turn to its economic function. First and foremost, the house was the place where food was prepared. Kitchens could either be established in the working quarters on the ground floor of the dwellings or in separate areas, mostly open-air yards closely connected to the house.[643] The large quantities of *Brittle Ware* cooking pots type 4-5 and marmites type 7 found seemingly dumped from the balcony of complex 101 suggest that some cooking may have taken place upstairs too.[644]

The literary, epigraphic and archaeological evidence suggest that the inhabitants of the massif enjoyed a diet, which was much more varied than normally believed. Staples obviously included cereals, legumes and green salad. Thus, the rations given to a team of builders in Khirbet Hassan (j.Barisha) included wheat, beans and lentils.[645]At the end of a long fast for Lent, Symeon Stylites is said to have eaten wild lettuce and chicory.[646] Wine and oil were also clearly part of the local diet, a fact that finds confirmation in the archaeological record. Archaeobotanic samples collected in the excavations of Sergilla have led to the identification of seven cultivated species, which included the olive (*Olea Europea*), the vine (*Vitis vinifera*),

[641] *AAES* IV 14-5. Despite being written on two separate *tabulae ansatae*, the text should clearly be read as one. The house is probably house 1 of Tate & Sodini 1984 (fig. 35). It included at least three large rooms and a fourth building seemingly separated from the rest of the house.
[642] *V. Timothy* §5; 16.
[643] So, for example, complex 104 in Dehes. Sodini *et al.* 1980:118-23.
[644] Sodini *et al.* 1980:46-9.
[645] *AAES* IV 6 (AD 507)
[646] Theod. , *HR* XXVI. 7

durum wheat (*Triticum aestivum*) barley (*Hordeum vulgare*), broad beans (*Vicia faba*), peas (*Pisum sativum*), lentils (*Lens culinaris*) and chickpeas (*Cicer arietinum*). Moreover, bitter vetch (*Vicia ervilia*) was cultivated for animal consumption. The remains of carbonised wood attest also to the cultivation of figs (*Ficus carica*) and possibly almonds.[647] When we turn to meat products, the best evidence comes from the excavations of Dehes and of the *mithraeum* of Huarte. On both sites, bones of chicken, beef and mutton abound.[648] Bones of duck found in Dehes substantiate Libanius's statement that his tenants reared them in the Antiochene.[649] Fish consumption is also attested at Dehes where bones belonging to several *silurus sp.* (Wels catfish), a large freshwater fish, were found. Silurus was regularly fished in the Orontes river and in the lakes of Antioch and Apamea, as Aelian's *De natura animalium* confirms.[650] Eulogies produced in Qal^{c}at Sem^{c}an in the early-sixth century may also depict this fish.[651] The range of products that were consumed in Dehes confirms not only the existence of a mixed agricultural regime, but also the village's capability to source locally unavailable products from regional markets. Perhaps more important, the pottery evidence suggests that villagers, even in the presence of locally-produced goods such as wine and oil were sometimes able and willing to import foreign varieties. This is suggested, in particular, by the finding of wine amphorae of Sinope (found in Sergilla and Qal^{c}at Sem^{c}an) and Zeugma (the NSA Type I found at most sites in the massif) to which we shall return at the end of this section.

Alongside cooking, the working quarters of the house were used for other activities as well. In a roofed shed attached to Dehes 104, for example, stonecutting utensils have been found alongside a hoe – the basic tool for ploughing small gardens.[652] The contextual finding of these tools is unlikely to be a coincidence: the importance of stone in all aspects of domestic architecture meant that, in the massif, the peasant could turn into the stonecutter with the alternation of the seasons. It is, of course, also possible that one of the dwellers of Dehes 104 may have belonged to a team of experienced stonecutters and master masons (*technitai*) who are widely attested in building inscriptions from the second to the sixth century.[653] *Technitai* such as Markianos Kyris (who built several churches in the northern jebel Barisha in the early-fifth century) could certainly afford to live off their profession without engaging in other activities: indeed, the already mentioned inscription of Khirbet Hassan seems to suggest that, alongside

[647] Samples were collected in the excavation of House IX and in a sounding (Sondage Botanique) dug in a circulation area in the centre of Sergilla. See esp. Fornite & Willcox (*apud Syrie du Nord* 2001:19-22); Fornite *et al.* (*apud Syrie du Nord* 2002:12-21 & Tb. 1-5).
[648] Sodini *et al.* 1980:302. Gawlikowski 2001:276.
[649] Lib. *Or*. XLVII,13. Sodini *et al.* 1980:302.
[650] Aelian, *Nat. anim*. XII, 29.
[651] See Sodini *et al.* 2010:800. Silurus anguillaris was still fished in the Orontes in the 18th c. :Russell 1794 II:217-8 (and Pl. 8).
[652] Sodini *et al.* 1980:112.
[653] On the techniques of stonecutting in the massif and their evolution see now Charpentier 2005-6. On epigraphic attestations of *technitai* see Appendix 2.

rations in kind, stone workers were also paid a salary.[654] Judging from the monthly repartition of building inscriptions (Fig.4.6), it would seem that building projects were mainly affected by climatic conditions, though the higher concentration of completed buildings (both civil/religious/domestic and tombs) in the months of July and August clearly hints to the role played by seasonal agricultural labour at the peak of the summer.

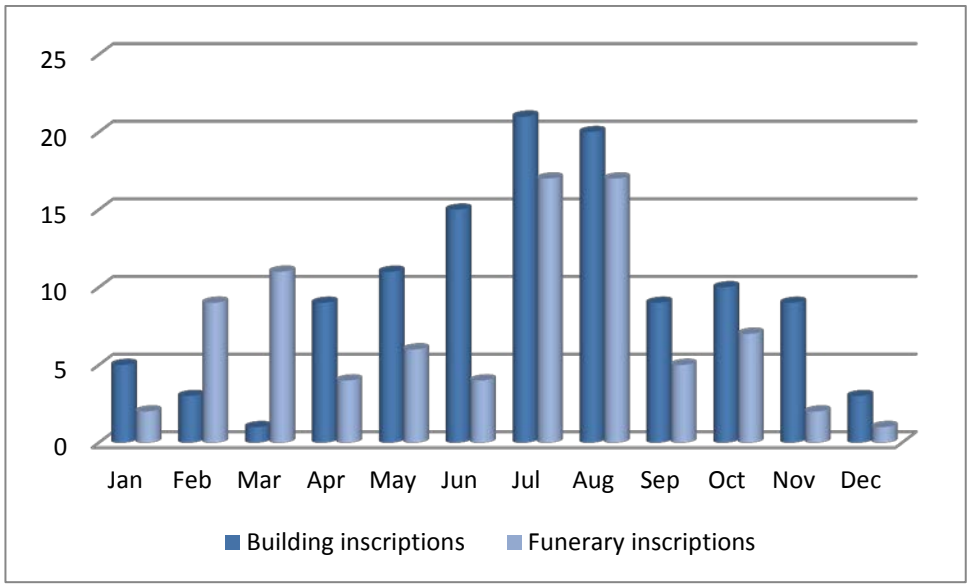

Fig. 4.6. Repartition of funerary and building inscriptions by month of dedication (when provided)

The importance of animal rearing can also be detected by looking at private architecture. Mangers placed between the intercolumnations of porticoes or amidst the pillars partitioning a room can often (though not always) be detected without excavation. This is particularly true in the northern chains, where Tate identified ca. 500 rooms with mangers (equivalent to 15% of all rooms recorded). In the jebel Zawiyé, instead, stables are less frequently found – though this is partially countered by a higher number of underground chambers (many of which may have been used as stables).[655] The bone remains found in Huarte and Dehes attest primarily to the rearing of cattle and sheep. The different heights of the mangers found in Dehes 102 (ca. 55 cm above the walking level) and Dehes 101 (ca. 85 cm) confirm the rearing of animals of different size. In the case of Dehes 101, however, the finding of troughs pierced in the stones next to the mangers may also point to the use of pack animals such as donkeys. Despite the evidence clearly attesting to stock raising in the massif, the limited number of mangers per stable suggests that this activity did not attain the sheer importance that

[654] *AAES* IV 6. This added up to 85 solidi over the period of building. We have unfortunately no information concerning the length of building or the numbers of people involved in it. On Markianos Kyris see Milson 2003.
[655] Tate 1992:254; 264.

it had, for example, in *Batanaea* where the houses studied by Clauss-Balty featured in most cases more than ten mangers.[656]

Finally, houses were occasionally provided with facilities for the production of oil and wine – arguably the most significant economic enterprises of the area. From the ground floor of Dehes 106, an underground chamber containing an oil press could be accessed. It is interesting to note that – while Dehes 106 shared its courtyard with complexes 105 and 107, the press could only be accessed by entering dwelling 106 and the right to use this structure may thus have been limited to the occupants of this house. This configures the first of three possible arrangements for the use of presses, namely that in which one household enjoyed exclusive ownership and use of the structure. The other two arrangements can be said to be characterised by private ownership with collective use; and shared ownership with collective use.

Before we turn to these, however, it is necessary to broaden our framework of analysis and to look at the economy of the massif as a whole. Since Tate's reassessment of Tchalenko's views on the economy of the region (see 3.2 above), scholars have agreed in seeing the area as thriving on a balanced agricultural regime that was combined with animal rearing. Evidence of this may be found (as we have seen) in the house, but also beyond the walls of the courtyards, in the villages and in their territories. Surveys in the territory of Sergilla, for example, have led to the discovery of many isolated mangers often related with cisterns, which were no doubt used to water the grazing animals. The lives of the local holy men occasionally provide additional evidence concerning the realities of stock raising in the massif. Theodoret's life of Symeon Stylites, for example, implies that flocks were grazed by shepherds in the vicinity of the monastery of Teleda where Symeon resided, i.e. probably on the barren western flanks of Sheikh Barakat.[657] Livestock, and particularly cattle herds and sheep flocks figure prominently in the *Life of Timothy* of Kakhushta, where wealth is mainly characterised in terms of ownership of animals.[658] The *Life* also seems to imply that families owned pastureland some distance away from their dwellings and that temporary shelters on these holdings were used to prepare and store cheese.[659]

Other sources sparingly refer to various agricultural endeavours. In his description of the conditions of agriculture in the hilly districts of the territory of Antioch, Libanius notes that "crops are planted under the trees", a clear reference to intercultivation.[660] A similar statement is present in the Syriac *Life of Symeon*, in which the fields around the town of Gindaros are said to have been planted with trees (olives?) and sown in between.[661] Intercultivation of wheat, barley and olive trees was practiced in the eleventh century, when Ibn Butlan crossed the northern

[656] Clauss-Balty 2008. See also Part II, section 2. 2. 1.
[657] Theod. , *HR* XXVI. 6.
[658] *V. Timothy* §39, 47, 63ff. See also Foss 2007:97-8.
[659] See esp. *V. Timothy*, §1. 2; 10. 2.
[660] Lib. , *Or.* XI 23.
[661] *V. Sym. Syr*. §62.

chains of the massif on his way to Antioch.[662] Not much else is known from the literary sources concerning the economic regimes of the countryside of Antioch and Apamea. Olive oil and wine production, so well documented by the archaeology, goes almost unmentioned in the literary sources and inscriptions. A mosaic inscription from the village of Kafr Zalih (j. Zawiyé) mentions a snowstorm which destroyed the olives of the area as one of the three most important events of the 5th century (the others being the raid of al-Nuᶜaman I against Seriana and a famine), thus attesting the vital role of the olive for the economy of the jebel Zawiyé.[663] Olive trees may also have been meant by a graffito inscription from Deir Semᶜan which records how an exceptional hailstorm had scattered "all trees and grain crops".[664] The vine is even less frequently attested in literary or epigraphic sources. Aside from the famous Latin inscription of al-Bara (an epigram on wine and wine production written on the outer wall of a wine press) and a Greek text from the same village mentioning the Mediterranean triad (wheat, oil and wine), the only other inscription that directly mentions wine production is a lead stamp which contains the text Δόμνου οινῶνος ("of the wine-cellar of Domnos").[665] It is likely that this stamp was used to mark amphorae containing wine produced on the property of Domnos.

Archaeology provides a much better indicator for the role of wine and oil production in the massif. Two problems must be discussed here: first, how production was organised within the village; and second, what was its true extent. We have seen above that the underground press found beneath Dehes 106 reflects an arrangement that would suggest private ownership and exclusive use of the structure by the inhabitants of this dwelling. However, presses could also have a less direct connection with houses. Survey work by Tchalenko, Tate and Callot in the villages of the massif (and especially in Dehes, Behyo, Bamuqqa and Deir Sunbul) has shown that presses tended to be located either in proximity to – but not within – a courtyard house or arranged in clusters most frequently found upon crossroads or along the outer roads of the villages. It is possible that the particular distribution of presses configured specific economic regimes. Presses built next to or in the vicinity of houses would doubtless fall into the same ownership, but the owners may very well have leased their presses out to other villagers: indeed, entrance to these presses did not require access to the courtyard (a space whose use was limited to residents), but could be had directly from the street or from a garden. This was very likely the case of the large press excavated in the west wing of House IX of Sergilla (Fig. 4.7).

[662] Ibn Butlan (*apud* Le Strange 1890:370).
[663] It has been noted (Yon & Gatier 2009 n. 29) that this inscription was probably an extract of the main events happened in the century before the laying of the mosaic and taken from a chronicle of events occurred in the territory of Apamea.
[664] *PPUAES* IV 28.
[665] Al-Bara:*IGLS* IV 1459 (see also commentary in Yon & Gatier 2009 n. 25); *IGLS* IV 1462. The lead stamp comes from Sermada in the plain of Dana (Jarry 1967 n. 120).

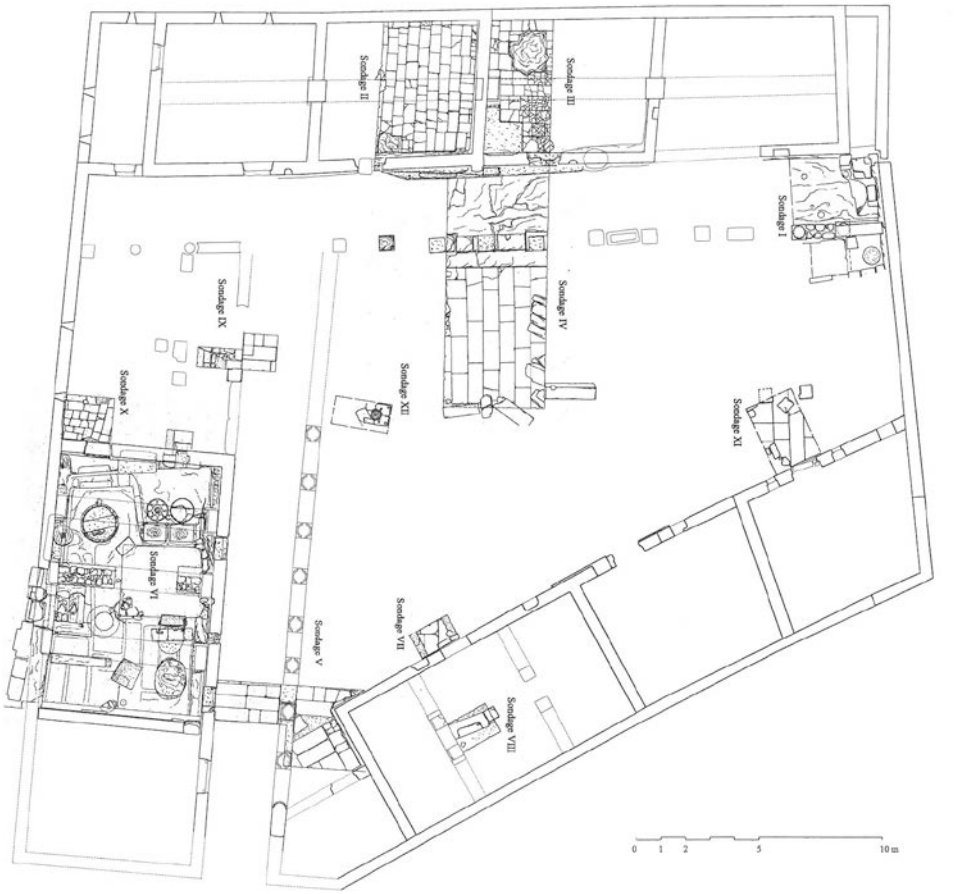

Fig.4.7. Sergilla (House IX). The press occupies the ground floor of one of the rooms in the west wing of the house (*Syrie du Nord* 2001 Pl.1)

The preliminary excavation reports show that this press was structured so as to be accessed from outside the dwelling to the west. Another door on the north wall of the press connected this facility with the house. This arrangement was modified at a later stage when the western and northern doors were blocked off and a new door – this time opening onto the inner courtyard of the house – was created in the south-east corner.[666] These transformations show that the press had initially been planned to be easily accessible from outside the dwelling, thus suggesting that its owners could have made it accessible also to others, perhaps after payment of a fee. Similar function may have had those presses which occupy the ground floor of two-storied single-room houses.[667] It is unclear whether the upper storey of these buildings was used as a dwelling or whether it served for storage. Whichever the case, the absence of courtyards around these buildings suggests a more open access to them.

The reasons underlying the creation of "press clusters" are harder to pin down. Amongst the plans published by Tchalenko and his followers, that of Behyo best illustrates this particular distribution (Fig.4.8). One cluster in southern Behyo comprised 14 presses in less than 0.5 ha. On average, such groups included between two and four presses. The concentration of these

[666] *Syrie du Nord* 2001:11.

[667] See, for example, installations 4 of Dar Qita (Callot 1984:Pl 106); 21 of Behyo (*Ibid*. :Pl. 115) 2 of Bashakuh (Ibid:Pl. 119) or P12 of Dehes (unpublished; its location is given in the plan below). To this category also belong many of those buildings which Tchalenko classed as "androns".

structures in so limited a space makes it unlikely that they should be explained as a function of the "morcellement des propriétés".[668] Against this view goes also the fact that, in the majority of cases, these clusters are located along, and in some cases even obliterate the ancient paths that connected the different villages of the massif (e.g. P2-4 of Dehes). This peculiar arrangement must surely be significant and may indicate shared ownership or use of these installations.

Fig. 4.8. Plan of Behyo (j.al-ᶜAla). Presses are shaded in grey. Two clusters are visible in the southern and north-western sectors of the village (adapted from Tchalenko 1953-8 II: Pl.CX)

When we turn to quantifying the scale of wine and oil production, the first problem that we encounter is a typological one. The vast majority of the hundreds of presses recorded in the massif may be divided into two main categories: on the one hand those with bell-shaped vats and stone rollers; on the other those without rollers and provided with two interconnected decantation basins of rectangular shape.[669] These latter are often accompanied by a round crushing mill.[670] Both categories were usually provided with a beam press operated either by windlasses and weights or by screw counterweights.[671]

[668] *Contra* Callot 1984:125.
[669] See for example Plates 88 and 122 in Callot 1984.
[670] The best guide to these installations remains Callot 1984. See also *Id*. 2002-3.
[671] Many of the structures with rollers and the simpler rock-cut treading floors had no beam press at all. This is the case, for example, of the majority of presses in Behyo:Callot 1984:120.

Figs 4.9a-b. Two different types of presses compared: a roller press with bell-shaped vat from Dehes (left) and a two-basin press from Sergilla (right) (©Aleppean Photographers).

There has been some contention as to whether these typological differences corresponded also to a functional differentiation between oil and wine presses. While it is widely accepted that rotary mills (such as the one visible in the top left corner of Fig. 4.9b) were exclusively used for olives, the purpose of rollers continues to be debated. O. Callot has for long held the view that rollers replaced crushing mills in cheaper oil presses. Comparison with similar structures from coastal Levant (and chiefly from Mt Carmel and Mt Hebron), however, have led R. Frankel and J.-P. Brun to argue that roller presses were used to process grapes rather than olives. This observation is further strengthened by the fact that roller installations are always provided with deep bell-shaped vats, which are a typical feature of Levantine wine presses.[672] Rabbinic sources would suggest that the first fermentation happened inside these vats, where the must was left for up to two weeks.[673] On the other hand, the double decantation basins are specifically designed for oil production as they allow oil collection by overflowing: oil, which constitutes ca. 20-22% of the olive is lighter than the watery lees which are also extracted during pressing. For this reason, oil floats on top and could flow into the second basin through a hole pierced in the upper portion of the wall dividing the two receptacles. Oil separation would, instead, have been much more difficult in the presses with bell-shaped vats.[674]

While on the whole presses with rollers and bell-shaped vats would have been for wine production and those with rectangular basins for oil, archaeobotanic evidence suggests that some presses were used for both activities. Samples collected at the so-called "village press" and at the press of House IX at Sergilla (Fig.4.10) contained remains of both olive stones and grape seeds and represent a strong argument in favour of the mixed use of the two

[672] Frankel 1999; Brun 2004. A catalogue of roller presses from Israel is given in Amit & Baruch 2009.
[673] Mainly *Tosef. Ter*. 7:15. Frankel 2009:11.
[674] Some presses with bell-shaped vats were, however, provided with decantation basins placed just before the main vat and which could be used to collect the oil with the overflowing technique as explained in Callot 1984:72-3.

installations.[675] This finds further confirmation in the occasional association of rotary crushing mills with presses with bell-shaped vats – as in the case of Deir Dehes (see below) and Sergilla. In the latter village, hybrid presses included two separate devices for the collection of oil and wine since they were equipped with both square basins for the decantation of oil and bell-shaped vats for the storage of wine.

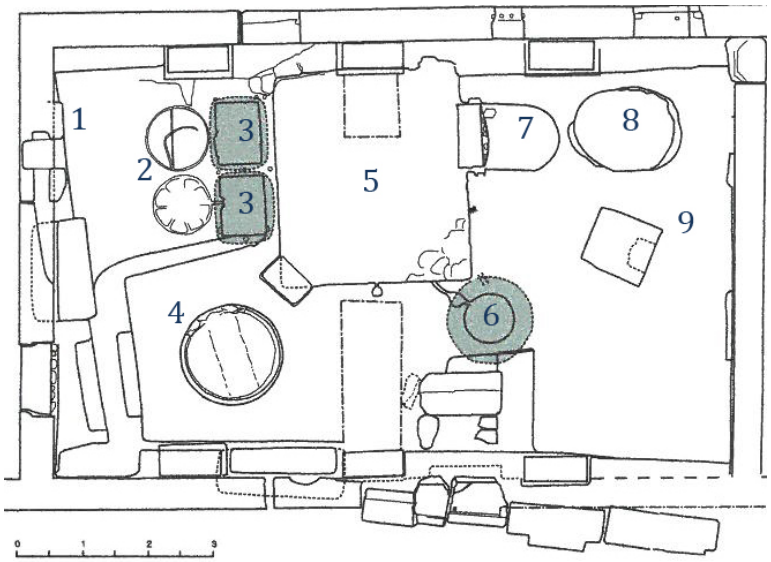

Fig. 4.10. Sergilla (House IX). Plan of the hybrid press. 1) Beam niche 2) Press beds 3) Decantation vats for oil 4) *Mola olearia* 5) Treading floor for grapes 6) Receiving vat for grape must 7) Hole for counterweight (1st phase) 8) Hole for counterweight (2nd phase) 9) Screw counterweight (Adapted from *Syrie du Nord* 2001:Pl.3 fig.3.2)

These hybrid presses are, however, rarely attested. On the whole, therefore, while most presses could no doubt produce both wine and oil, differences in their plan that made them more suitable for one or the other are likely to suggest a *prevalent* function. Consequently, presses furnished with bell-shaped vats have been treated as wine presses while two-basin presses are regarded as oil presses for the purposes of quantification. Assessing the scale of oil and wine production from the archaeological remains of the production infrastructure involves a number of methodological problems, which have fuelled a long-lived scholarly debate.[676] In order to reconstruct how an ancient press worked, scholars have generally combined the texts of the ancient agronomists and ethnographic parallels to the material evidence.[677] There is wide agreement that, from Antiquity to the pre-industrial period pressing techniques changed but little. In the majority of cases, pressure was exerted on a stack of grapes/olive pulp by means of a beam or a direct screw mechanism: the former – the only type found in the massif – consisted

[675] *Syrie du Nord* 2004:18.
[676] E. g. Amouretti & Brun 1993.
[677] Among the best studies of pre-industrial presses it is worth naming Cresswell's study of an oil press from Lebanon (Cresswell 1965) and Amouretti's survey of an early-20th century press from Portugal (Amouretti *et al.* 1984).

of a wooden beam one end of which was anchored to a niche in a wall while a downward force was applied to the other end (by means of weights or of a screw).

The methodological framework to estimate the production capacity of oil presses of this kind is derived primarily from D.Mattingly, who has written extensively on Tripolitanian presses.[678] Mattingly argued that the volume of an olive stack could be obtained from two different measurements: the height of the niche holding the end of the press beam and the diameter of the pressing bed.[679] Since both niche and press bed are usually preserved in the material record, these data can normally be obtained. The stack volume thus obtained represents the aggregate volume of olive pulp and *fiscinae*, the thin baskets into which the pulp was placed after going through the mill. Mattingly assumed the *fiscinae* to have occupied roughly as much space as the pulp, and consequently halved the total volume to obtain that of olive pulp alone. Furthermore, by knowing that olive pulp has a specific gravity of ca. 0.9 and that oil makes up only ca. 20-22% of the pulp weight, the oil content/stack may be obtained. There follow a number of necessary assumptions regarding the number of press loads per day and the length of the harvesting season. Regarding the former, Mattingly follows Pliny, who stated that only ca. 1,200 kg of olives could be pressed in the course of a day.[680] Mattingly set the harvest duration at 90 days, while for Callot the harvest in northern Syria took place between September and November.[681]

If Mattingly's methodology can be applied to the oil presses of the massif, a different strategy must be used with wine presses. Although beam presses are also found in the majority of wineries, pressing played only a secondary role in wine production, which was almost entirely achieved by treading. Furthermore, while press beds of oil presses are always easily recognised by the grooved channel that runs around them, wine presses did not need a permanent press bed. Quantification of wine production, therefore, relies on measuring the size of the receiving vats, the rock-cut containers in which the first fermentation took place.[682] The method to calculate the size of these vats has already been outlined in section 2.2.2 with regard to Si^c and will be reprised here.

Having clarified the methodologies for the quantification of oil and wine production, we may turn to the village of Dehes as a case study. Surveys and excavations have led to the identification of 29 presses inside the settled area or at its fringes. To these, the two presses of

[678] See especially Mattingly 1988a; 1988b; 1988c; 1996.
[679] Mattingly 1988a:187ff. Instead of holding niches, Tripolitanian presses were anchored to sockets carved into freestanding orthostats (the equivalent of the *arbores* of the agronomic literature). Thus, Mattingly's calculations are based on the height of the sockets in relation to the press bed instead of the distance measured from the top of the holding niche to the press based, which I have adopted here.
[680] Pliny, *NH* 15. 6. 23. Pliny gives the average pressload (*factus*) at 100 modii of olives and argues that 1 ½ such loads could be pressed in a day. According to Mattingly (1988a:184), the bigger *factus* given by Varro (120-160 modii = 950-1250 kg) would suggest that he envisaged only one pressload/day.
[681] Mattingly 1988a:192; Callot 1984:16-7.
[682] Frankel 1999; Ayalon *et al.* 2009.

the monastery of Deir Dehes should be added (see below). Table 4.1 includes data drawn from 14 out of 21 excavated presses.[683]

Table 4.1. Oil and wine presses of Dehes[684]

Press (Callot)	Press (Tchalenko)	Type	Device [1]	Niche (H)[2]	Niche to Floor	Base (R)[3]	Treading floor (V)	Vat (H)	Vat (R)[4]	Vat (r)[5]	Vat/Stack (V)[6]	Notes
P2	P2	wine	W?/S	128	218	-	12 m2 11 m3	150	100	67.5	3.35	
P3	P3	wine	-	-	-	-	29.8 m2 19 m3	130	220	220	6.3	Rectangular vat/cistern
P4	P4	wine	W/S	119	184	-	14.4 m2 9.3 m3	75	110	55	1.66	
P6	n/a	oil	W/S	120	215	64*	-				0.51	
P9	P9	wine	S	102	?		13.7 m2	70	85	65	1.24	height is based on top level of plaster found in excavation
P10	P10	wine	W/S*	119	209		16.8 m2 15.1 m3	93	101.5	80	2.42	
P11	P7-8	wine	W/S	105	190		14.8 m2 12.6 m3	?	65	215		The press reuses a rock-cut tomb as the receiving vat.
P12	P12	wine	S	105	185		18.5 m2 13.9 m3	70	75	62.5	1.04	Press occupies the ground floor of a one-room house
P13	P13	wine	?	117	202		16.8 m2 14.3 m3	95	92.5	75	2.1	
P26	House 33	wine	W?/S	106	196			80	85	70	1.51	
P27	House 33	wine	S	105	175		14.6 m2 10.2 m3	70	100	77.5	1.74	The walls of this press re-use blocks whose décor is dated by Callot to the 6th c., thus positing a very late date for the press
P28	n/a	Oil	w	135	195	55	-				0.69	
P21	P21	wine	W?/S	>110	>225	1 m^2	-	70	100	70	1.61	
P22	n/a	Oil	two phases	120	190	55*	-				0.28	Published in Sodini, Tate *et al.* 1980: 155-8

[1)]W = windlass; w = weights; S=screw

[683] With the exception of P22, the underground press beneath complex 106, all the other presses remain unpublished. All data presented in Tables 4. 1 and 4. 2 and the following calculations have been obtained through the kind cooperation of Dr Callot.

[684] Measurements are in cm unless otherwise specified in the notes to the table.

[2] To the full size of the niche one must deduct the thickness of the wooden frame (= 15 cm throughout, following Callot); the width of the beam (calculated from the width of the niche, not in the table); and the thickness of the *orbis* (10 cm throughout).
[3] Normally the radius of the press bed, when present. For P21, the area of the bed is given instead. When an asterisk is present, 17.5cm must be deducted from the radius (the size of the channel around the press bed).
[4] Radius at the bottom of the vat (unless otherwise specified)
[5] Radius of the vat at the level of the treading floor (unless otherwise specified)
[6] Wine press = volume of vat (m^3); oil press = volume of stack (m^3).

With the aid of this data, we can not only estimate the production capacity of wineries and oileries, but also obtain some idea as to how much of the territory of Dehes would have been covered with vineyards and olive orchards. Finally, we will see that the archaeological evidence suggests that an effort was put by the villagers to convert their production infrastructure to more efficient techniques, a fact that seemingly goes against commonly-held views about technological change in Antiquity.

The plan below (Fig.4.11) shows the distribution of the wine and oil presses included in Table 4.1. Wine presses make up a majority of identified structures and configure at least one cluster (P2-4) of the kind described above for Behyo. It is also interesting to note that the presses of this cluster display the highest vat capacity of all the presses surveyed, a fact that may support our earlier argument concerning their shared ownership and use.

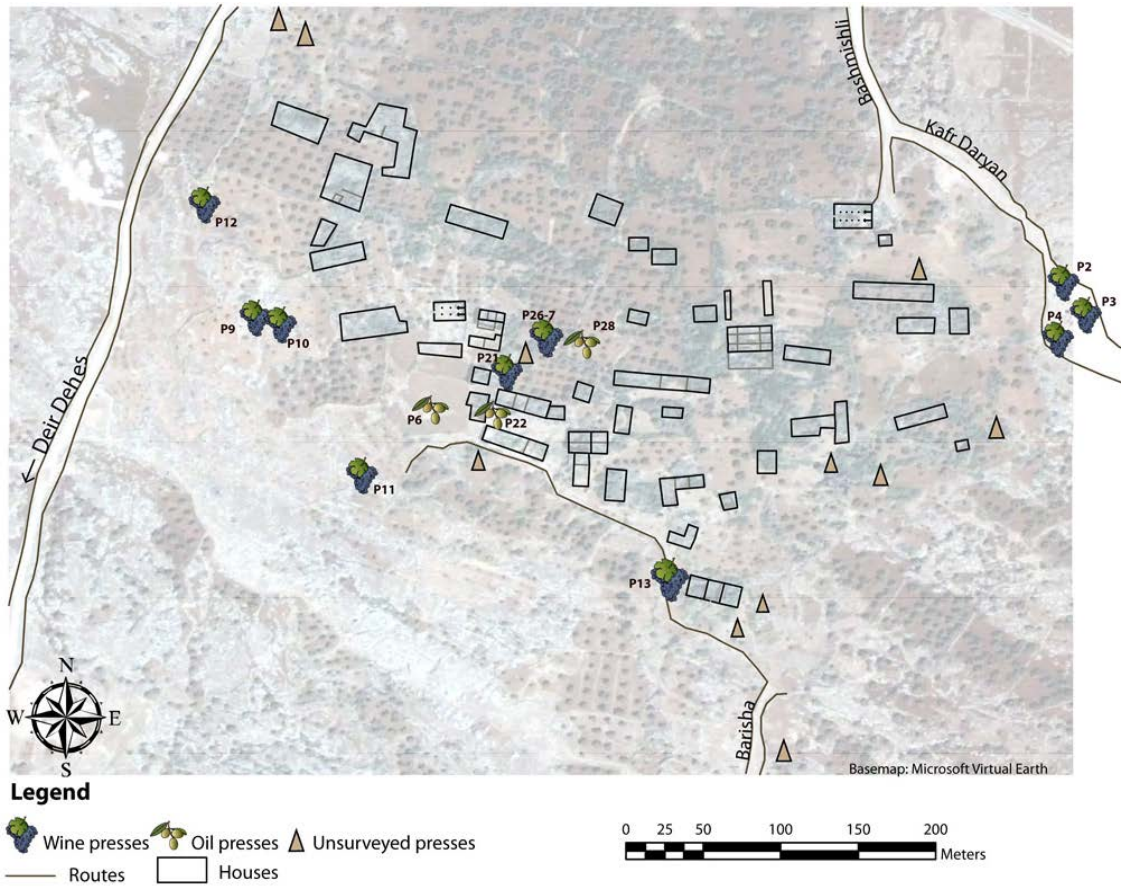

Fig. 4.11. Oil and wine presses in Dehes

Another cluster of presses is probably that which includes P26-7, P28 and the unsurveyed press Tchalenko 18. This group had no apparent relation with any of the houses surrounding it since such dwellings did not open onto the space occupied by the cluster. However, P21 (the southernmost of this group) was attached to complex 107 and originally opened onto its courtyard (i.e. to the south), though during a second phase its orientation was changed and the entrance to the press was shifted to the north.[685]

The uneven distribution of presses is not only a feature of Dehes, but of the Limestone Massif as a whole: indeed, Callot noted that villages like Berrish North or Bettir (j. al-ᶜAla) – located only 2-3 km away of the press-rich Qirqbize, Qalbloze and Behyo – had no presses at all.[686] This is further evidence that, while mixed agriculture was doubtless the predominant mode in the massif, there existed some degree of specialisation for which heavy investment in arboriculture was only one of several equally viable options – stock raising clearly coming a close second. In this respect, it may be appropriate to recall the *Life of Timothy* of Kakhushta, where agriculture plays but a minor role in comparison to stock raising.

Yet, there is no denying the role of arboriculture: the high capacity of the presses surveyed clearly attests to it. The estimates are gathered in Table 4.2 together with *comparanda* from other parts of the Roman world. For the oil presses, estimates of daily production are given for one and two press loads per day. This is because two of the three oil presses considered were provided with what we may term as "loading areas", i.e. an additional circular area placed alongside the press bed and which can only have been used to prepare a second load whilst the first was being pressed. This, in turn, implies that at least two loads were processed per day.

[685] Callot (pers. comm.)
[686] Callot 1984:117 n. 9.

Table 4.2. Estimated production outputs of presses in Dehes and *comparanda*[1]

Press	Type	Vat/Stack (V)	Oil/day (1 load)	Oil/day (2 loads)	Oil/season (1)[2]	Oil/season (2)[2]	Wine (1 filling)	Wine (2 fillings)	Wine (3 fillings)
P2	wine	3.35					3,350	6,700	10,000
P3	wine	6.3					6,300	12,600	18,900
P4	wine	1.66					1,700	3,400	5,100
P6	oil	0.51	92	184	4,100-8,200	8,300-16,600			
P9	wine	1.24					1,250	2,500	3,800
P10	wine	2.42					2,400	4,800	7,200
P12	wine	1.04					1,000	2,000	3,000
P13	wine	2.1					2,100	4,200	6,300
P26	wine	1.51					1,500	3,000	4,500
P27	wine	1.74					1,700	3,400	5,100
P28	oil	0.69	125	250	5,600-11,300	11,300-22,500			
P21	wine	1.61					1,600	3,200	4,800
P22	oil	0.28	50	100	2,300-4,500	4,500-9,000			
Tripolitanian presses[3]	oil				6,300-12,600				
Uchi Maius 22.000[4]	oil	0.5[5]	90[5]						
Dor[6]	wine						8,400		
W.Galilee 3[7] W. Galilee 4	wine	10.6 1.28					10,600 1280		

[1)] All estimates of production are in kilograms. Volumes are in cubic metres. [2)] With a season of 45 to 90 days. [3)] Mattingly 1988a: 192 [4)] Vismara 2007: 86-7 [5)] Obtained applying Mattingly's methodology to Vismara's data [6)] Kingsley 1999 I: 74 [7)] Frankel 2009: 20

Comparative evidence from Tunisia and Tripolitania places oil presses from Dehes in the upper tier in terms of production capacity. Wine presses, instead, are on average smaller than those found in Palestine, though P2 and P3 had a substantial capacity. On the whole, the capacity of wine and oil presses from Dehes confirms the importance of arboriculture and leave no doubt as to the villagers' capability of producing a marketable surplus.

The capacity of presses also allows us to estimate the size that olive orchards and vineyards would have had to attain in order to make the presses work to full capacity. This, in turn, will help us to understand what share of the territory of Dehes orchards and vineyards took up and, consequently, what role viticulture and olive culture played in the economy of the village.

Before we can do this, however, it will be appropriate to discuss the means by which we may be able to estimate the size of the village territory of Dehes. Unsurprisingly, evidence for this is extremely slim. For the size of village territories, we must almost entirely rely on boundary markers, of which only a handful have been found *in situ.* All of these belong to the Tetrarchic land assessment discussed in section 4.1 and are primarily located in the jebel Sem^{c}an. A topographic map of their placement was published by Tchalenko and it is on such

map that Fig. 4.12 is based.[687] The boundary markers and villages concerned are plotted on a pan-sharpened Landsat 7 ETM+ false colour image (bands 7,4,2) taken on 14 Nov 2000. This combination of bands highlights differences in soil use and moisture, thus allowing to recognise barren lands (shades of dark pink), wadi beds and *dolines* (brown to purple), orchards (olive green) and shrubs (dark green). Although conditions may have locally changed between Antiquity and modern times (e.g. with the intervention of intense soil erosion especially in some wadi beds), the use of Landsat imagery allows us to speculate on the possible structure and different components of village territories.The size of village holdings may be reconstructed from markers *in situ*. Of the nine boundary markers in Fig.4.12, six were placed at the bottom of wadi beds or at the lowest point of rocky slopes terminating into a wadi: wadis were therefore likely to be treated as natural boundaries. On the back of this observation we may now estimate the track of village boundaries at the time of the Tetrarchy. The disposition of the boundary markers is especially informative for the village of Kafr Lab (or Καπρολιαβων in the inscriptions): the limits of its territory have been identified to the north-east, south-east and south, leaving only the western flank unaccounted for. This latter area features a fertile plateau that was likely divided with the neighbouring village of Basufan; since no information survives regarding the position of boundaries between these villages, a line has been drawn at mid-point between them for calculation purposes. Another village whose limits may be sketched on a map is Kafr Nebo. In Part III, we discussed this village in the context of temple holdings which in Kafr Nebo included an oil factory. The village much expanded in Late Antiquity reaching a maximum extent of almost 17 ha. Its territory to the south was likely limited by the fragmentary marker 8f while 8e to the north contains the beginning of a toponym [*Ka]pro*, probably *Kaprobaradeon*, i.e. Brad, whose ruins are situated less than 1.5 km to the north of the marker. Fig. 4.12 shows the conjectural size of the territories of Kafr Nabo and Kafr Lab and marks off the areas of deeper soil deposits and those under cultivation. Thus, the territory of Kafr Lab, reckoned at ca. 290 ha contains only ca. 112 ha (or 39% of the total) of cultivable soil, the rest being mostly barren land only suitable for grazing. The very large territory of Kafr Nabo (ca. 615 ha) contained only ca. 120 ha (38%) of agricultural land.[688] Although computation of pockets of soil smaller less 15 m wide (invisible in the Landsat imagery) would increase these figures, there is no doubt that only a minority of the village territory of both Kafr Lab and Kafr Nabo could be put under cultivation.

[687] Tchalenko 1953-8 III:51.

[688] Callot (1984:121) reckoned the territory of Kafr Nabo at 600 ha "grâce a quelques bornes cadastrales". But the Tetrarchic boundary stones only help determine the northern and southern limits of the village territory, while Callot does not explain on what grounds he selected where the western and eastern boundaries should fall.

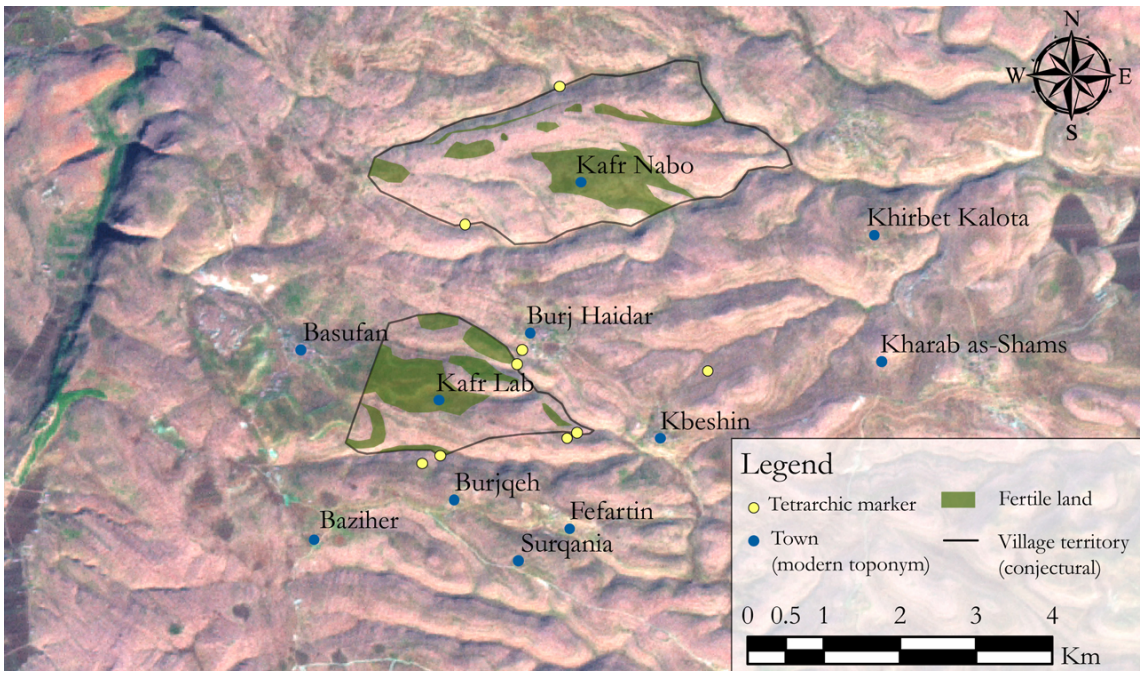

Fig.4.12.Tetrarchic boundary markers and village territories in the jebel Sem^{c}an (Backdrop: Landsat 7 ETM+ bands 7,4,2, courtesy of the US Geological Survey)

We can now return to Dehes. The figure shows the estimated extent of the territory of the village calculated following the criteria outlined above.

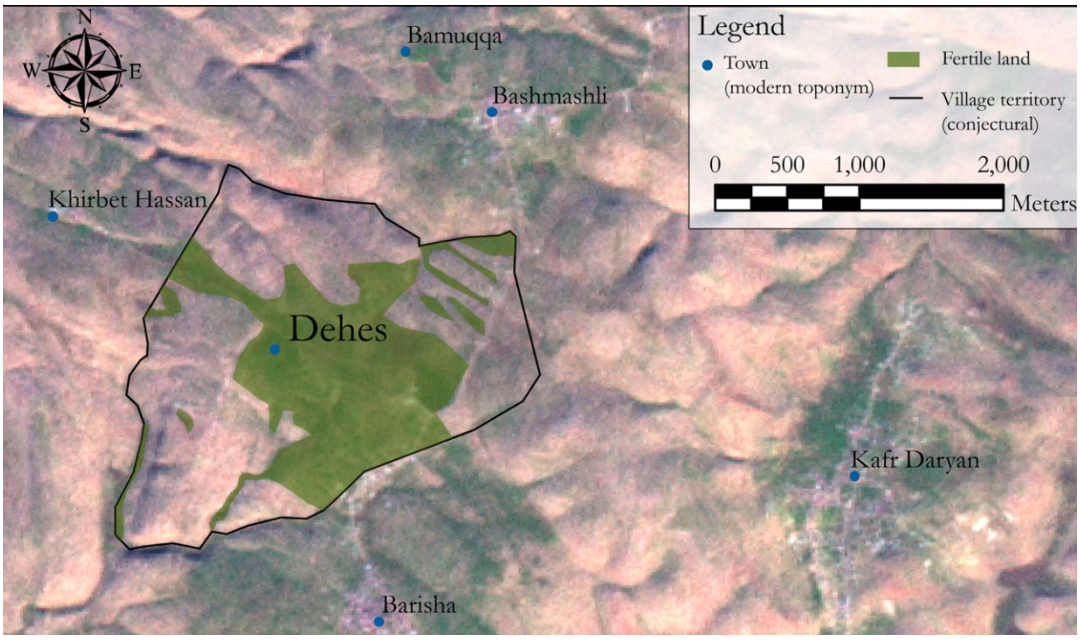

Fig.4.13. Conjectural extent of the territory of Dehes, jebel Barisha (Backdrop: Landsat 7 ETM+ bands 7,4,2, courtesy of the US Geological Survey)

While the deep wadis to the north, south-west, south and south-east may have acted as boundaries, the limits of the territory of Dehes to the west and east have been conjecturally

drawn halfway between Dehes and the neighbouring villages. As a result, the territory of Dehes is reckoned at ca. 400 ha of which ca. 160 ha (40%) of agricultural land.

To estimate the size of vineyards, quantities of grape must should be turned back into quantities of grapes and a return ratio of grapes on surface is needed. In order to do this, we will follow the same procedure and adopt the same parameters as outlined in section 2.2.2, with the exception of the average yield per season, which in this region was ca. 3,000 kg/ha instead of 3,600 kg.[689] Table 4.3 sketches the size of the vineyards associated with the ten wineries examined. It presents three possible configurations, which vary depending on whether one, two or three fillings of the receiving vat are posited:

Table 4.3. Dehes. Estimated size (ha) of vineyards[1]

Press	Vineyard size (1 filling)	Vineyard size (2 fillings)	Vineyard size (3 fillings)
P2	1.86	3.72	5.56
P3	3.5	7	10.5
P4	0.94	1.89	2.83
P9	0.69	1.39	2.11
P10	1.33	2.67	4
P12	0.56	1.11	1.67
P13	1.17	2.33	3.5
P26	0.83	1.67	2.5
P27	0.94	1.89	2.83
P21	0.89	1.78	2.67
Totals	12.71	25.45	38.17

[1)] The grape/must ratio of 0.6 is used throughout

Thus, the grape harvest necessary to operate these ten wineries could have been drawn from vineyards of between ca. 13 and 38 ha equivalent to between 8% and 24% of the fertile territory of Dehes. Such figures should likely be doubled to take into account the other fifteen presses that have not been fully studied. Moreover, the monastery of Deir Dehes would have also needed ca. 2.5 ha for its own wine press (see below). Theoretically, therefore, vineyards could have taken up as much as 50% of the agricultural territory of Dehes.

To this, we should add olive groves. Estimates require an oil/fruit ratio and a figure of olive yield on unit of surface. These may be extracted from ethnographic literature and early statistics. The official records of the Ministry of Agriculture under the last years of the French Mandate and the first years of the Syrian Arab Republic, on which Table 4.4 is based, show a high degree of inter-annual variability. The data covers the period between 1937 and 1950.[690]

[689] Data for the period 1955-60 published in the official reports *Études sur la Syrie économique* (1953-9).
[690] *Statistical Abstract of Syria* 1950; 1951-2. This is due to the combination of the olive's biannual crop cycle with anthropogenic variations in the ratio fruit/oil (e. g. faults in pressing infrastructure). It is also

Table 4.4 also contains a reckoning of the returns of oil per tree and oil per hectare. The latter is obtained by using an average ratio of trees/ha of 75. This data suits the local conditions of the Limestone Massif: oral testimonies gathered by the Franciscan Fathers in the jebel al-ᶜAla confirmed that a hectare may contain up to ca. 75 adult olive trees. [691] This figure finds some confirmation in the analysis of an aerial photograph of the territory of Dehes taken between 1938-41 and now part of the Tchalenko Archive (TAIR-028). The photograph covers a number of olive orchards with densities varying between 40 and 130 trees/ha, with an average of ca. 72 trees/ha.[692]

Table 4.4. Historical statistics of olive oil production and return ratios

Year	Oil production (tons)	No. of trees[1] (thousands)	Return (kg olives/tree)	Return (kg oil/tree)	Return (kg oil/ha)[2]
1937	2,556.5	2,991.13	7.12	0.85	63.7
1938	7,257.3	3,236.77	13.36	2.24	168
1939	1,966.7	4,072.77	3.96	0.48	36
1940	6,305	4,702.55	7.45	1.34	100.5
1941	3,884.6	4,687.05	3.77	0.83	62.3
1942	7,288.3	4,709.34	9.74	1.55	116.3
1943	23,106.9	4,712.86	15.43	4.9	367.5
1944	2,026.3	4,903.8	2.27	0.41	30.8
1945	16,791.2	6,558.47	24.23	2.56	192
1946	6,242.6	6,501.95	7	0.96	72
1947	11,116.2	6,698.96	11.97	1.66	124.5
1948	10,252.2	6,170.13	16.69	1.66	124.5
1949	14,436.8	6,986.35	13.08	2.07	155.2
1950	3,580.6	7,126.89	2.61	0.5	37.5

[1)]Fruit-bearing trees only [2)] With 75 fruit-bearing trees/ha
Source: *Statistical Abstract of Syria* 1950: 152 Tb.3; 1951-2: 191 Tb.4

The data sequence includes good crops (with returns/ha up to 370 kg) and poor yields (with returns as low as 30 kg/ha). In order to estimate the size of olive orchards in Dehes, we will use the median of the good crops (>100 kg/ha) or ca. 140 kg of oil/ha. This is because presses, as Mattingly noted for Tripolitania, were likely designed to be able to cope with bumper crops and their maximum production capacity would thus reflect this. Table 4.5 lists the estimated size of the orchards that could be exploited by the oil presses P6, P22 and P28.

possible that data collection, particularly in the period between 1939 and 1945 might have been affected by the war. Particularly suspicious are figures for 1943 and 1944, which are respectively abnormally high and low.

[691] Peña *et al.* 1990:26.

[692] TAIR-028 is part of the Tchalenko Archive kept at the Institute of Archaeology, Oxford University. The photograph was also used by Schachner (2006 I:158 n. 11) whose density of 145 trees/ha does not represent the average, but rather a maximum (as recorded in the north-western sector of Dehes).

Table 4.5. Dehes. Size of olive orchards (ha)[1]

Press	Orchard size (45-day harvest)	Orchard size (90-day harvest)
P6	29-59	59-119
P22	16-32	32-64
P28	40-81	81-161
Totals	85-172	172-344

[1]Values rounded to nearest integer

The three oil presses analysed had therefore a catchment zone of between ca. 85 and 345 ha of olive orchards equivalent to between 53% and 215% of the agricultural territory of Dehes. As stated above for wineries, it is likely that such figures should be doubled to take into account the areas of catchment of the 15 unsurveyed presses, of which at least some would have been oileries like P6, P22 and P28. Moreover, the two presses of the monastery of Deir Dehes (see below) may have required as much as 39-55 ha of olive orchards, thus bringing the estimated total up to 125-400 ha equivalent to 78%-250% of the land available for cultivation.

Together, therefore, the presses of Dehes were able to process crops harvested on a territory as much as three times the size of the fertile land of Dehes, figures that suggest that this village had not only developed a very strong vocation for cash crops, but was also capable of exploiting nearby basins of production. Indeed, none of the neighbouring villages of Bab Ayan, Kafr Daryan and Khirbet Hassan appear to have possessed a pressing infrastructure comparable to that of Dehes. It is possible, therefore, that the villagers of Dehes leased out their presses to their neighbours or that they may have owned land outside of the boundaries of the village territory.

These calculations provide an order of magnitude of the extent of wine and oil production at Dehes and leave little doubt that this village, like those of Behyo, Kafr Nabo etc. were engaged in surplus production. Surplus margins were particularly significant in oil production, as a quick look at estimates for self-consumption needs confirms. The Franciscan Fathers noted that a peasant family of seven living in the jebel al-ᶜAla needed ca. 200 litres of oil for self-consumption. It is unclear whether this figure included also oil for cleansing and lighting.[693] For Antiquity, scholars have generally converged on estimates ranging between 20 and 30 kg per person. Amouretti estimated that a rural household of four with two slaves would need ca. 82 kg to cover all its needs.[694] In her recent study of olive production in ancient Greece,

[693] Amouretti (1986: 183) argued for an annual food consumption per person of 18. 5 kg of oil, though she also noted the figure of 25-30 kg including lighting recorded by Raulin in 19th-century Crete. Decker (2009:170) accepts Amouretti's figure.
[694] Amouretti 1986:195.

Foxhall has proposed a total of ca. 200-330 kg of oil for a wealthy Athenian household of five.[695]

An oil press like the underground P22, which could only be accessed via the courtyard of complex 101-8 was likely to have been exclusively used by the extended household living in this complex which at its maximum extent may have comprised as many as eight families. If we use the household size of seven recorded in the modern jebel al-ᶜAla, a total of perhaps 1,600 litres (= 1,450 kg) of oil would have been needed for consumption needs. Depending on the size of the harvest and on how intensively the oil press was operated, P22 would have been capable of producing between 850 and 7,550 kg of surplus oil or enough to cover the needs of another 30 to 250 individuals (or up to another 36 households of the same size).

Turning to wine, the winery P21 built along the west wall of dwelling 107 and in all likelihood belonging to the same owners was capable of producing between 1,600 and 4,800 kg of wine. With the daily consumption of an adult male commonly believed to have been around 0.5 and 1 litre of wine, the press would have been able to provide for the annual needs of between 5-9 and 13-26 men, leaving, in all likelihood, an important margin for market sale.[696] Overall, the ten wineries surveyed in Dehes may have been able to cover the annual consumption needs of up to ca. 380 adult males. Assuming that unsurveyed wineries had a similar capacity, it is possible that the wine industry of Dehes could have supported almost 800 adult males or 1400 people equivalent to 230 families if we use Decker's standard family of six (composed of three adults and three children).[697] At an average of two families per house, the ca. 50 houses of Dehes may have contained a maximum of ca. 600-700 people (with a family size of 6-7). In other words, the annual grape yield of Dehes would have been enough to feed, alongside its inhabitants, another village of the same size. If we think it in terms of amphorae, the vineyards of this village were likely capable of filling as many as 3,400 Late Roman Amphorae 1 type A (LRA1 A), a very common container in Late Antiquity (see below), while the sole P22 could produce oil to fill as many as 500 such amphorae.[698]

Some of this surplus of wine and oil would have been certainly stored away by villagers in order to pre-empt bad crops or, for oil in particular, to make up for the discharge year in the two-year cycle of the olive tree. However, the figures presented above leave little doubt that the margins existed for market-oriented production to be regularly achieved. The capability of these villages to produce beyond their immediate needs is key to understanding how the communities of the Limestone Massif were able to expand and become wealthier in Late Antiquity.

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[695] Foxhall 2007:85-95.

[696] The daily consumption of an adult male was reckoned by Tchernia (1986:26) at between 1 and 2 sextarii/day. Most scholars have followed this estimate (e. g. Kingsley 1999 I:74; Decker 2009:122). For Broshi daily consumption by an adult male reached 700 g (1984:33). Safrai (1994:129) following Mishnah Shebit 5:7 accepted an annual consumption of between 38 and 94 litres or 300-375 litres for a family.

[697] Decker (2009:122) sets the annual wine consumption of his standard family at 598 l.

[698] The capacity of LRA 1A amphorae varied widely between 15-27 litres. Here, the standard capacity of 20 litres, common to the majority of the specimens is employed. See Pieri 2005a:70.

A final example will further illustrate this point. The excavation of House IX of Sergilla (j.Zawiyé) may allow us to gain some idea of how the surplus margins afforded by the house's hybrid press enabled the household to grow and improve its living standards. Although the elements to determine an absolute chronology of this house remain unpublished, the interim excavation reports allow us to reconstruct the relative chronology of development. At some point after an initial one-storey dwelling had been built, a press was added along the western wall of the courtyard (Fig.4.14a). The press could be accessed both from outside the house (W door) and from within the dwelling (N door). Later on, the house expanded eastward with the addition of two more single-storey rooms. The courtyard was also expanded to the south and a second storey (accessed via a newly built portico) was eventually added to the dwelling, but not to the press. After this, the house was provided with three tower-like structures (A1, B1 and C1 in Fig. 4.14b). While these extensions were being built, the press underwent a slight but important change when the placement of the screw counterweight was moved ca. 1.5 m further south, thus necessitating a longer beam. This transformation may have been motivated by a desire to obtain higher yields. Later still, an upper storey was added on top of the press and, still later, the west wing of the house was extended to the north (Fig. 4.14c). The upper rooms of this wing were provided with a polychromatic mosaic (Fig 4.14d). The W and N doors of the press were also blocked off: the press could now only be accessed from the inner courtyard.

Fig.4.14a Sergilla (House IX) Phase 2. The dwelling quarters (left) and press (bottom right) are visible (*Syrie du Nord* 2001: Pl. VIIa)

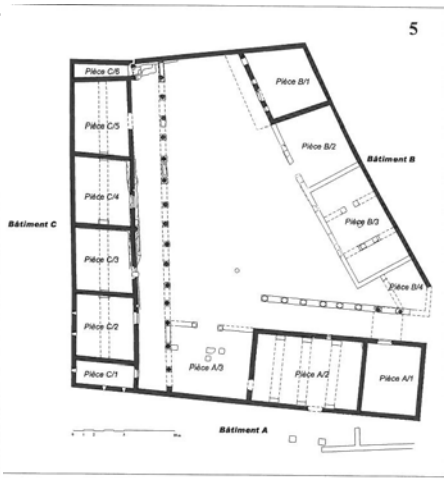

Fig.4.14b. Sergilla (House IX) Phase 5. The dwelling has significantly expanded and the house has been provided with towers (*Syrie du Nord* 2001: Pl. VIIa)

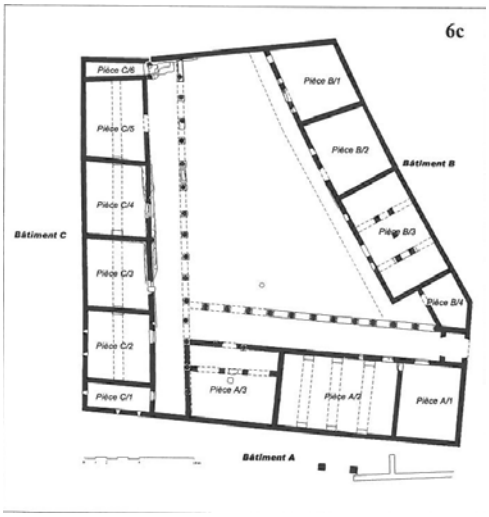

Fig.4.14c. Sergilla (House IX) Phase 6c. The house has reached its full extent with three complete wings. The press is no longer accessible from the outside (*Syrie du Nord* 2001: Pl. VIIb).

Fig.4.14d. Sergilla (House IX). A detail of the mosaic *tesserae* found in the collapse layer of the press (*Syrie du Nord* 2001: Pl. V)

Following the same methodologies outlined above, we may note that the hybrid press of House IX, in its final state, was capable of producing between 5,900 kg (season of 45 days with one pressing/day) and 23,400 kg (season of 90 days with two pressings/day) of olive oil, but only ca. 760-2,300 kg of wine. If we assume that House IX, in its final stage, contained a maximum of three families of seven, the occupants would have needed ca. 600 kg of oil and about 2,000 kg of wine. To conclude, the press, which was part of the house since its earliest phases, may have initially granted large surplus margins for both wine and oil. It may have also been capable of processing larger crops than those at the disposal of the owners of the house, a fact that may

explain why, until phase 5, the press remained opened to the outside (perhaps signalling that it was occasionally leased out). Later, as the house became larger and – we may presume – more populated the surplus of wine shrank but that of oil remained, on good years, very substantial. The profits that this press could generate may, in turn, explain the progressive amelioration of the living standards of the owners of House IX. The fact that at least some areas of the living quarters were paved with polychromatic mosaics with geometric motifs gives the measure of how refined rural dwellings were becoming.

The correlation between the large production capacity of the presses of Sergilla and Dehes and the development of a wealthier, more complex village society in Late Antiquity can hardly be missed. The vast surplus margins that the local oil and wine production (to which we should add the certainly very significant, but more difficult to quantify production of dairy and meat products) left to the villagers of the Limestone Massif led to the development of a market-oriented society that was able to thrive so long as a demand existed for its products.

Demographic growth may have somewhat lowered surplus margins, though evidence exists to show that villagers attempted to counter this phenomenon. In Sergilla, toward the latter phases of House IX, the owners attempted to increase the performance of the press by adopting a longer beam, a fact that may signal the desire to obtain higher returns or, more likely, increase the speed of production.

In Dehes, presses P4, P6, P10-11 (and possibly also P2 and P26) appear to have undergone a transformation that involved the replacement of the lever-and-windlass mechanism with the lever-and-screw. Although it is nearly impossible to establish the absolute chronology of such developments, the shift from the windlass to the screw counterweight is significant. Both technologies had been invented long before the presses of Dehes were built: while Cato had already described the former, Hero of Alexandria knew the latter. Hero was quick to highlight the advantages of the screw mechanism: it reduced the risk of breakage, it was less labour-intensive and it eased the lifting of the counterweight. Ethnographic parallels suggest that a large press of this kind could be operated by as few as one to three workers.[699] Furthermore, the screw made pressing less time-consuming because it made use of both first- and second-class levers by being alternatively turned clockwise and anticlockwise. Finally, the screw counterweight developed a stronger force which, despite producing only limited yield gains, increased the speed of pressing.

In adopting strategies for labour intensification, the peasants of northern Syria were doing, or at least attempting to do, what Esther Boserup so lucidly predicted in her essay on the conditions of agricultural growth: traditional agricultural societies respond to shrinking returns whether by increasing input of labour or by adopting limited technological innovation.[700] In the specific case of presses, the introduction of the screw mechanism may have derived from the

[699] Amouretti *et al*. 1984; Mannoni 1985.
[700] Boserup 1965.

villagers' attempt at speeding up pressing operations in order to better cope with bumper crops. Indeed, early twentieth century reports suggest that pre-industrial oil presses were often unable to process olive harvests quickly enough to prevent the fermentation of the fruit which made its oil unsuitable for consumption.[701]

Having looked at the house and village economy we may now return to monasteries, whose important social role in the late antique period (see above, 4.2) was mirrored by an equally significant economic role.[702] Monasteries are almost ubiquitous in the Limestone Massif, and the evidence suggests that the vast majority of them entertained economic activities.[703] In describing the monastic rule set by Bassus, a fifth-century *periodeutes* and founder of a monastery at Batabu (close to al-Atharib in the Chalcis plain), Theodoret notes its exceptional character in not allowing the monks to keep animals nor to have a millstone.[704] This must have been in stark contrast with the other monasteries of the region where animal rearing and agricultural activities must have been the norm.

Surveys have confirmed that oil and wine production took place in the monasteries of the massif. The small monastery of Deir Dehes has been studied in particular detail. It is located on a limestone escarpment ca. 600 m south of the village of Dehes and was connected to it via a path that ran through fields dotted with tombs and presses.[705] Apart from the main path that linked it with Dehes, a winding track departed eastward from the monastery's dwelling quarters to reach, after about 1.5 km, the village of Barisha. Finally, a branch of the Dehes path led west toward the monastery of Burj ed-Duerrih.

The site included a small church of basilical plan with *diakonikon*, *martyrion* and a communal tomb for the monks.[706] To the south of the church, and separated from it by a courtyard, two large presses were discovered. Further south, a four-storey tower and the dwelling quarters of the monks and the hegumen were located.[707] Finally, to the west of the tower, a circular enclosure with an area of about 300 m^2 was found, possibly an indication that stock raising was practiced on this site. The monastery seems to have gone through at least two

[701] This information is contained in a report on "Trade with Syria" compiled by Ernest Weakley, an adviser to the British ambassador in Constantinople, and addressed to the House of Commons in 1911: Weakley 1911:59.
[702] The economic role of monasteries in the massif was already fully recognised by Tchalenko (1953-8 I:173-82).
[703] Tchalenko noted that about fifty of the eighty monasteries named in the monophysite letters of AD 567-9 are to be assigned to the Limestone Massif (Tchalenko 1953-8 I:150ff. ; list in Caquot *apud* Tchalenko 1953-8 III:63ff.). To these we must add those of Chalcedonian rite, which would have been especially numerous in the Apamene section of the massif. Overall, at least 80 monasteries must have existed in the massif by the sixth century (Tchalenko 1953-8 I:153).
[704] Theod. , *HR* XXVI. 8.
[705] Biscop 1997:2.
[706] Biscop 1997:5.
[707] Biscop 1997:29-36.

major phases, though the dating is heavily reliant on masonry chronology.[708] The first monastic dwelling quarters may have been established as early as the late-fourth century on an earlier complex whose destination remains unclear. During the fifth century, the dwellings were expanded and the church and first press built. Finally, in the sixth century, another press was built to the west of the earlier one; the dwelling quarters were further expanded and the church embellished. It is probably at this point that the only inscription of the site, a Syriac text naming the priests Eusebius and Bassus was engraved.[709] The pottery finds in the area of the presses demonstrate that the monastery remained occupied until at least the late eighth century. The site was later re-occupied in the tenth and eleventh centuries, but the presses had by then gone out of use.[710]

The archaeological evidence of Deir Dehes confirms that the monks of this monastery were engaged in stock raising and oil production. Just as for the village of Dehes, further insights into the size and nature of the monastery's agricultural exploitation may be gained by assessing the scale of its oil production. A brief description of the pressing infrastructure is required. The two presses were housed in separate rooms, each of which was partly rock-hewn and partly built. Both were surmounted by an upper storey which may have served for storage. The two chambers were provided with crushing mills and both presses made use of a screw mechanism.[711] While the mills leave no doubt that both presses were used for oil production, wine production cannot be ruled out: if the east press was provided with square decantation basins which are typical of oil presses, the west press also included a large bell-shaped vat which, as we have seen above, was a principal component of wine presses.

Due to the limited extent of excavations inside the press chambers, several key elements of the presses remain unknown. For this reason, an estimate of the maximum capacity of the two presses of Deir Dehes must rely on the data provided by Biscop. The author tells us that the mill of the east press was cleared of debris and its capacity reckoned at 400 kg of olives (though a working load would not exceed 200 kg). The limited space available around the mill excludes the possibility that animals could be used to action the *mola olearia*; this, in turn, posits long operating times and Biscop is probably right in suggesting that no more than three loads could

[708] For observations concerning the problems inherent with this kind of dating evidence see above (section 3. 2).
[709] Marlia Mango (*apud* Biscop 1997:50) dated the inscription on palaeographic grounds to at least the sixth century, if not later.
[710] The only pottery collected in stratigraphic context comes from the rock-cut cavities housing the screw counterweights of the two presses. Here, two layers were detected between the bedrock and the modern walking surface:the lower one included pottery which accumulated in the last phases of use of the presses; the upper one, instead, was composed of debris which filled the cavities once the presses ceased their function. Within the former layer, chronological boundaries are set by two rims of a plate in Phocean sigillata type 10 (late-sixth/early-seventh century) and by the abundance of type 6-7 cooking pots, which in the excavation of Dehes 101-8 were attributed to the late-eighth/early-ninth century. See Sodini *et al.* 1980:245-50; Orssaud 1992:224ff. ; Orssaud (*apud* Biscop 1997:47-9).
[711] Biscop 1997:21-5.

be put through the mill in one day. [712] Three loads of 200 kg equal 600 kg of olives; considering that pressure did not exceed 3.7 kg/cm^2, the maximum oil that could be extracted would be around 120 kg per day.[713] Depending on the size of the harvest, the pressing season could last between two and three months, but given that this was a monastery it is likely that all activities were forbidden on Sundays and, perhaps, Fridays.[714] Thus, with an average of between 45-65 working days the maximum output of the east press of the monastery could be between 5,400 and 7,800 kg of oil. Information on the west press is scarce; it appears that it may have been a hybrid press, with a crushing mill (the size of which is not given by Biscop) attesting to its use for oil production and a treading floor and bell-shaped vat to be used for wine making. The capacity of the vat from the bottom to the level of the pressing floor may be reckoned at 2.45 m^3 or 2,450 litres, a capacity that is 10% higher than that registered in the biggest presses of Dehes. If, as argued above, the wine-vat could be used as many as three times over a vintage, the monastery would have been capable of producing ca. 7,500 litres of wine.

Such data confirms the importance of the monastery's agricultural exploitation. The size of the presses may also allow us to make some suggestions as regards the size of the monastery holdings. For Biscop, who estimated the maximum oil production capacity of the two presses at 25,000 l the monastery would have needed 60 ha of land cultivated with olives to obtain such high yields.[715] Although the production figures adopted here are low compared to Biscop's, the oil/ha return we use is also significantly lower and results in an estimated size of the monastery's olive orchards of between 39 and 55 ha.[716] The estimated size of vineyards, once again, depends on whether the vat was re-used more than once in the course of the vintage. If, as posited above, the first fermentation took place inside the vat – as it seems likely given its large size – then the west press of the monastery may have processed a maximum of about 7,500 l of must which yields a surface of ca. 2.5 ha with the ratio of 3,000 kg/ha used above. To this we should add pastureland and the sown; the result is a fairly large monastery estate with a territory probably bigger than 60 ha, which most likely relied on the local workforce provided by the inhabitants of Dehes to process its crops in the course of the olive and grape harvesting seasons.

Monastery estates such as that of Deir Dehes are plentiful in the massif, though none has been excavated or explored in any detail. An important exception is represented by the site of Rasm al-Nawus which lies only 2.5 km north of the northern gate of Apamea in the southern

[712] Biscop 1997:22. Ethnographic parallels suggest that water was added to the olives in a quantity equal to that of the olives (1l water/1 kg olives):see Cresswell 1965:40.
[713] Biscop 1997:23. For olive/oil ratios see above.
[714] The prohibition to work on Fridays and Sundays was among the rules that Symeon imposed on the villages under his protection (see section 4. 2 above). For the length of the pressing season see e. g. Mattingly 1988:184; Biscop 1997:23.
[715] Biscop 1997:42.
[716] Assuming identical production figures for the west and east presses. Biscop's argument that the west press had higher capacity cannot, unfortunately, be verified with the data provided by him.

jebel Zawiyé. [717] Partly excavated by Canivet in the 1960s, this site includes a basilica probably built in the fifth century and a later agricultural complex – no doubt part of a monastic estate – which included storage facilities and a large direct-screw oil press. The monastery of Rasm al-Nawus is also one of the very few surveyed monastery sites in the jebel Zawiyé. For the northern chains, instead, we are fortunate to have the surveys conducted by the Franciscan Fathers in the 1980s and 1990s. These have been recently supported by further fieldwork conducted on separate occasions by D.Hull and L.Schachner.[718] Their results show that the majority of monasteries did have wine and oil presses, though many of them only disposed of simple rock-cut structures.[719] Schachner has also attempted to distinguish oil and wine presses – mainly on the basis of the presence or lack thereof of the press beam's holding blocks. Map 3 shows the repartition of monasteries with presses in the northern chains of the massif and indicates the number of installations discovered. Where possible, they also incorporate Schachner's differentiation of oil and wine presses.

Unfortunately, in the complete absence of excavation no assessment of the production capacity of these monasteries is possible. Where possible, however, Schachner has recorded the surface of the pressing areas of wine presses. These, in turn, may be associated with the presses of Dehes and Deir Dehes described above to suggest a degree of comparison. Table 4.6 below shows known pressing areas of monastery sites against data from Dehes. The median press area in the Dehes dataset is that of P11, which is reckoned at 14.8 m^2 and indexed.

Table 4.6. Areas of wine presses in monasteries against average area of winery in Dehes

Monastery	Pressing Surface	Equivalent in Dehes (14.8 m2 = 1)	Monastery	Pressing Surface	Equivalent in Dehes (14.8 m2 = 1)
Burj ᶜAbdallah	10.2 m^2	0.69	**as-Sijn**	5.6 m^2	0.38
			Qalᶜat al Brayg	3.32 m^2	0.22
Burj Mahdoum	5 m^2	0.34	**ad-Duwayr**	> 34 m^2 (two presses)	>2.5
Deir Babisqa B	3.1 m^2	0.21	**Qalᶜat at-Tuffah**	7.7 m^2	0.52
Deir al-Malik	1) 3.6 m^2	1) 0.24	**Tell Aqbrin**	8.1 m^2	0.54
	2) 8.2 m^2	2) 0.55	**Qalᶜat Kalota**	19 m^2	1.28
	3) 11.5 m^2	3) 0.78	**Burj Gaber**	30.4 m^2 (4 presses)	2
Qasr ad-Deir	1) 10.2 m^2	1) 0.69	**Deir Sahur**	5 m^2	0.34
	2) 11.5 m^2	2) 0.78	**as-Sijn**	5.6 m^2	0.38

[717] Canivet & Canivet 1968; *Eid.* 1971; *Eid.* 1987:77-83. Canivet's identification of this site with the monastery of Nikertai has been refuted by Fourdrin (1993).
[718] Peña *et al.* 1980; 1983; 1987; 1990; 1999; 2003. The recent work of Hull (2006) and Schachner (2006) is largely based on the surveys of the Franciscan Fathers. It is regrettable that neither author has attempted to improve Peña *et al.* 's imprecise plans of individual sites (though see Hull 2008:98; 102 for the monasteries of Kharab Shams and Qasr al-Brad).
[719] Of the 140 monastic sites included in Hull's gazetteer (2006 II:16-160), 30 had presses.

as-Somᶜat	10 m^2	0.68	**Qalᶜat al Brayg**	3.32 m^2	0.22
Qasr Nawawis	10.2 m^2	0.69	**ad-Duwayr**	> 34 m^2 (two presses)	>2.5
Burj Banasra	0.81 m^2	0.05			

Source: Schachner 2005: 184 (Deir al-Malik and Qasr ad-Deir); *Id*. 2006 II.2

The limited selection of data available for the area of wine presses in monasteries suggests that these were relatively small structures in comparison with those of Dehes and Deir Dehes. While there is no necessary correlation between area and capacity (the latter depending chiefly on the size of collecting vats), the fact that most wine presses are found to be between 20% and 80% smaller than the Dehes average is significant. It suggests that, if monasteries such as Deir Dehes were probably involved in the commercialisation of their agricultural products, other monastic sites may have only produced for self-consumption. However, it must also be noted that sites such as Burj Mahdoum and Deir Babisqa B, which contained some of the smallest presses, are thought to have been dependencies of larger monasteries. In particular, Burj Mahdoum, Burj Abdallah and Deir Burj Abdallah are all believed have belonged to the holdings of the monastery of Qalᶜat Sermada, which was situated on a high limestone escarpment to the south of the village of Sermada.[720] Together, these sites contained some six wine presses, which in spite of their small sizes could, if used together, process large crops.

In conclusion, therefore, the monastic landscape of production is likely to have been highly differentiated. Some monasteries such as Deir Dehes, Rasm al-Nawus, Qalᶜat Sermada or Deir al-Malik disposed of either very large or very numerous presses a fact that, in turn makes it likely that such monastery estates could dispose of significant landholdings. How the monks managed their lands remains, however, unknown. Large estates such as that of Deir Dehes may have made use of seasonal workers during the harvest, but it is also possible that the presses of the monasteries were used to process rents paid in kind by villagers to whom the monks leased land. Though inflated by much rhetoric, a passage of Libanius's *Pro Templis* may refer to exactly this kind of arrangement.[721]

The extent to which monasteries also engaged in commercial activities remains, however, unclear. The only local source that we have, the *Life of Timothy* of Kakhushta seems to suggest that the monastery mainly relied on endowments. However, production infrastructure such as that described above for Deir Dehes suggests the possibility of surplus production for the market. Nor would this be unparalleled. The monasteries of Tur ᶜAbdin, the limestone massif between Amida and Nisibis along the Tigris frontier, provide perhaps the best comparative evidence. The *Life of Symeon of the Olives*, which recounts the life of the abbot of

[720] Schachner 2006 I.

[721] Lib. *Or*. XXX, 11. The passage relates that monks, alongside destroying temples and appropriating temple land also "snatched off the wretched peasantry the stored produce of the land and of animal rearing".

the monastery of Mor Symeon in Qartmin in the second half of the seventh century stands out in particular.[722] The *Life* reveals how Symeon decided to put to use a treasure miraculously found hidden in a cave by buying hamlets, villages, shops, presses, gardens and orchards which he endowed to the monastery of Qartmin. Moreover, he purchased land in the irrigated plains of Serwan where he established an olive orchard of some 12,000 trees. These were tended by hired labour. As soon as the trees became productive, the orchard was able to satisfy the demand for oil of all the monasteries of Tur ᶜAbdin.[723] Ownership of land and villages by monasteries is also attested in John of Ephesus, who recounts how the two Amidene monasteries of John the Urtian and Zuqnin had received the village of Nardo in Ingilene and its territory by imperial endowment. They also possessed some other land on which they grew wheat for sale.[724]

As in Tur ᶜAbdin, landownership and commercialisation of surplus are likely to have been part of the everyday reality of some of the monasteries of the Limestone Massif. Monasteries, like villages, played thus a major role in the agricultural exploitation of the region.

The oil and wine industry of the area was clearly considerable. Villages such as Dehes or Behyo and monasteries such as Deir Dehes or Deir al-Malik were involved in surplus production of these goods for the market or for the benefit of pilgrims. The localisation of demand centres for the products of the region is problematic. Local markets would have no doubt played an important role: micro-regional specialisation enabled the many oil and wine producers of Dehes, Behyo and Qalbloze to address the demand for these products in the villages of the massif which were less equipped for cash crop production. To this intra-regional market, we must also add the much larger demand of cities like Antioch, Apamea, Chalcis, Beroia and Cyrrhus which were placed just beyond the boundaries of the region. The bulk of wine and oil would have likely travelled to these urban markets in animal skins, thus leaving no trace in the archaeological record.[725] However, there is no doubt that the region was also connected with much wider commercial networks that reached as far as the Black Sea and the Khabur valley. This is proven by the imported ceramics found at the majority of the excavated sites (see below). The role of trade for the economy of the region cannot be underestimated. The evidence suggests that commercial transactions happened on a regular basis. Literary sources show that seasonal fairs played an important role in the marketing of local goods as well as in the acquisition of imported products. Theodoret's description of the πανήγυρις of Imma shows that these fairs brought together large crowds of local customers and itinerant merchants

[722] Brock 1979 provides a summary of the life. The full text is only preserved in a manuscript in Mardin and was only published in a Syriac edition by Dolabani (1959, *non vidi*). On the formation of monastic communities in Tur ᶜAbdin see Palmer 1990.
[723] Brock 1979:175-7.
[724] John Eph. , *Lives* p. 212; 614 (ed. Brooks).
[725] As noted by Decker 2001 I:335-6.

(πάντοθεν ἐμπόρους) who sold their products in exchange for money.[726] The numerous coins found in the dwellings of Dehes, moreover, suggest that the economy of the massif was highly monetised, as does the Syriac inscription of the church of Khirbet Hassan, completed in AD 507, which implies that builders received payment both in kind and in cash.[727] The hoard of seventh-century gold coins found at Rasm al-Nawus suggests that local monasteries and churches were able to accumulate large quantities of coinage both through charity and, possibly, through the sale of their products.[728]

The existence of a market economy inside the massif cannot, therefore, be denied. But to what extent was this connected with the outside? What did the massif import and export? And, more importantly, which trade routes was the massif part of? These issues may partly be resolved by looking at pottery assemblages and, in particular, at amphorae and *Brittle Ware* samples.

Table 4.7 lists the type of late antique amphorae found in the massif together with their findspots, possible area of production and date:

Table 4.7. Overview of published amphorae found in the Limestone Massif

Type	Subtype	Sites (massif)	Other sites	Origin	Date
LRA 1	B1	Qal^{c}at Sem^{c}an, Qal^{c}at Kalota, Dehes, Srir, Burj Baqirha, Sergilla	Amuq valley (AVRP), East & West Mediterranean	Syro-Cilician coast/Cyprus	6th to mid-7th
D Snp	I	Qal^{c}at Sem^{c}an, Sergilla	Amuq valley (?), Seleucia Pieria, Ras ibn Hani, Beirut, Pella, Jerash, Dibsi Faraj	Demirci (Sinope) – Black Sea	6th to early-7th
NSA Type I		Behyo, Qalbloze, Dehes, Qal^{c}at Kalota, Qal^{c}at Sem^{c}an, Sergilla	Apamea, Halabiya, Zeugma, Resafa	Zeugma	late-6th to 7thc.[2]
NSA Type II	1.1-2	Burj Baqirha, Sergilla, Dehes, Deir Dehes[1]	Apamea, Androna, Dibsi Faraj, Resafa	Apamea?	7th-9th c.
NSA Type II	2	Dehes	Apamea	Apamea?	8th-9th c.

[1)] Subtypes not clear. [2)] In Dehes, this amphora is present in a context sealed by fire between the end of the 6th and early-7th century.

[726] Theod. *HR* VII. 2. The unnamed merchant rescuscitated by Palladius had left the πανήγυρις overnight – possibly to show up early in the morning at another fair – after having sold his products for cash (χρυσίον). On seasonal fairs see De Ligt 1993 (esp. 38-9; 78-9).
[727] *AAES* IV 6. The building cost 85 solidi and 430 bushels of wheat, lentils and beans plus the "chief expenses", i. e. probably the cost of the materials. See Littmann's commentary.
[728] Canivet & Canivet 1987:82. On the hoard see Morrisson 1972.

Although published data is limited to a restricted number of sites and, chronologically, to the latter part of Late Antiquity, Table 4.7 allows a first assessment of the massif's trading connections. Production of LRA 1 amphorae, especially in their later subtype B1, is mainly attributed to the Syro-Cilician coast and to the southern coast of Cyprus.[729] Their presence in the Limestone Massif is thus far from surprising in view of the widespread distribution of these amphorae in the entire Mediterranean in sixth century. Believed for long to have carried olive oil only, these amphorae are now often regarded as wine containers on account of the pitch lining found on many specimens.[730]

More intriguing is the presence of specimens of the late amphorae of Sinope, a town along the southern shore of the Black Sea at Qal^{c}at Sem^{c}an and Sergilla. These containers, which have a capacity of ca. 6-7 litres appear frequently along the Levantine coast (e.g. at Seleucia of Pieria and Beirut) and along the *limes* of the Euphrates.[731] The content of these small vessels, almost certainly a liquid product, remains controversial with scholars equally arguing for them to be used as wine and oil containers.[732] Finally, the sites of the massif have yielded a considerable number of specimens which are ascribed to a loosely defined category of amphorae known as *North Syrian amphorae* (NSA). Attested between the late-sixth and ninth centuries in the Euphrates valley, in the Syrian pre-desert (e.g. Androna) and in Apamea, these amphorae have been variously regarded as water, wine or multipurpose containers.[733] What does the finding of these amphorae tell us about the economy of the massif? In spite of the common view that LRA 1 vessels were used as the local containers for surplus wine and oil, the question of how these goods were shipped remains controversial.[734] Specimens found in the massif remain too few for them to be regarded as the containers regularly used for the storage of local wine and oil for export. No evidence of LRA1 amphorae was found during field walking conducted by Reynolds in Behyo and Qalbloze in the jebel al-^{c}Ala – where presses are plentiful.[735] Moreover, Reynolds has cast serious doubt on the existence of LRA1 kilns along the shores of Seleucia of Pieria, arguing that the mixture of LRA1 and Snp amphorae sherds should be rather regarded as an amphora dump like Monte Testaccio in Rome.[736] Thus, findings of LRA 1 B1, D Snp I and NSA Type I amphorae in the Limestone Massif are much more likely to reflect imports, which the rural centres received both from the sea (LRA 1 and Sinope amphorae) and from inland Syria (NSA Type I). The penetration of Sinope amphorae east of the Orontes valley is well attested since the Roman period in the Amuq valley and here, too, it may

[729] Empereur & Picon 1989:236-43; Demesticha & Michaelides 2001.
[730] On this see chiefly Pieri 2005a:81-5.
[731] Pieri 2005b: 587
[732] Pieri 2005b:587; Kassab Tezgor 2010:137.
[733] Water: Sodini & Villeneuve 1992:199. Wine: Pieri 2005b. Multipurpose: Decker 2001 I:323 (who likens its function to that of LR5, the 'bag-shaped' amphora, in Palestine).
[734] So, for example, Decker 2001 I:320-2.
[735] Reynolds 2005:567.
[736] Reynolds 2005:566.

have continued into the sixth century.[737] Trading relations between Antioch and Sinope are also adumbrated by two letters of Libanius (*Ep.* 177-8), dated to AD 360, which suggest that Libanius had hired a ship and entrusted one of his slaves to carry out some commercial transaction in the Pontic town.[738] Although it remains impossible to ascertain whether oil or wine was carried in the amphorae of Sinope, their frequency in the territories of Antioch and Apamea – both of which produced plenty of wine and oil – is very significant. What it shows is that – even in the presence of an important local production – the option to purchase foreign wines/oil was not limited to the upper urban classes, but was readily available to the inhabitants of the countryside too.

Moreover, the findings of NSA Type I amphorae, whose production centre has been tentatively located in the hinterland of Zeugma suggest that the villages of the massif were also consumers of goods produced in the upper Euphrates valley.[739] Yet, contrary to the case of Sinopian products, the amphorae of Zeugma are altogether absent from the pottery record of the Amuq valley to the north-west of the massif.[740] This poses problems since it is widely believed that NSA Type I amphorae shared the same basin of circulation of Byzantine and Islamic *Brittle Ware* (see below), a type of common ware widely attested in Syria, which enjoyed significant distribution in the Amuq.[741] The answer to this problem may perhaps lie in the fact that *Brittle Ware* seems to have made its appearance in the Amuq only in the early Islamic period while NSA Type I are mostly found in late-sixth and early-seventh century contexts.[742] It seems likely, therefore, that the products of Zeugma ceased to be imported in the area after the Arab takeover of the Levant.

Finally, NSA Type II, with its many subtypes, dominates the 8th- and 9th-century contexts of the Limestone Massif. The centres of production of this large-capacity vessel (averaging 30 litres as opposed to the 17-25 litres common in the majority of Byzantine amphorae) remain unknown, though the high number of specimens found in Apamea suggests that one such centre should be located in this town or its vicinity.[743] The likelihood that these amphorae originated in the Apamene and findings of NSA Type II in association with the

[737] Amphorae of Sinope represent 45% of all amphorae findings of the AVRP. See De Giorgi 2006:399-400. It is likely that at least De Giorgi's fabric 14 should be assigned to D Snp I amphorae.
[738] Petit 1955:305 n. 5. Liebeschuetz 1972:46. The two letters were respectively addressed to Themistius (a philosopher and friend of Libanius', see PLRE I *Themistius* I), who was based in Constantinople, and to two prominent citizens of Sinope named Eusebius and Faustus. It is not clear what the merchants were carrying on their way to Sinope. Reiske's suggestion that οἰκίδιον ("small house", *Ep*. 177. 6) be replaced with οἰνάριον ("a little wine") is not very convincing and was rightly rejected by Liebeschuetz.
[739] Abadie-Reynal & Martz 2010:841.
[740] De Giorgi 2006:399-400.
[741] Vokaer 2009:135. More generally on the typology and origin of *brittle ware* of northern Syria:Vokaer 2007; *Ead.* , 2010. The study of the *brittle ware* findings in the Amuq valley is still at an initial stage; see Gerritsen *et al.* 2008:292; 311 fig. 16.
[742] So, for example, at Dehes: see Bavant & Orssaud 2001:37.
[743] Pieri 2005b:586.

presses of the monastery of Deir Dehes may suggest that these containers were indeed used to store wine or oil produced in the massif in the latter phase of its settlement.[744]

To conclude, the amphorae found in the Limestone Massif show that the villages of the region were not only able to access the Mediterranean commercial network centred in Antioch – through which they obtained LRA 1 and Snp amphorae - but also to participate in the trade of products whose origin was situated east of the plain of Chalcis. The fact that both LRA 1 and Snp amphorae were likely laden with oil and wine produced outside the massif is also of importance as it suggests that consumers were sometimes happy to pay for imported products despite the importance of the local wine and oil industry.

Additional evidence of the integration of the Limestone Massif in the wider commercial networks of northern Syria may be found in the study of *Brittle Ware*. This type of common ware, whose colour ranges from red to anthracite depending on firing conditions, was first identified and studied by Dyson in Dura Europos.[745] However, it was only from the late 1990s that studies began to systematically address issues of fabric, typology, diffusion and dating. It was discovered that *Brittle Ware*, which comprises mainly cooking wares but also lids, table wares and lamps enjoyed broad distribution in northern and central Syria from the first to the tenth century and beyond.[746] Petrological and chemical studies led to the identification of six different fabrics each of which has been tentatively associated with particular areas of production.[747] In particular, scholars have distinguished fabrics made of iron-rich clay with a prevalence of quartz inclusions, which are likely to have originated in a *terra rossa* context, and fabrics containing a wide range of inclusions whose origin should be assigned to an alluvial context.[748] For the purposes of our discussion, we will concentrate on the former group of fabrics (or workshops), which includes fabrics 1, 4, 6. Fabric 1, characterised by iron-rich clay with fine-grained quartz inclusions represents the most widely attested fabric in northern Syria during the Byzantine period: it made up the total of *Brittle Ware* found at Dehes and the vast majority of findings at Aleppo (95%), Dibsi Faraj (88%) and Androna (82%).[749] It was also overwhelmingly present in the later strata of Zeugma, Resafa and at various sites studied during the surveys of the Euphrates, Balikh and Khabur valleys.[750] Fabric 1 continued to dominate samples in northern Syria in the early-Islamic period (7th-10th c.), albeit increasingly associated with fabric 6.[751] Individual production sites of Fabric 1 remain unidentified, but clay sampled by Schneider *et al.* in the southern jebel Sem^{c}an has shown matching chemical compositions, thus suggesting that the Limestone Massif or its immediate surroundings may have been responsible

[744] For a brief mention of the amphorae of Deir Dehes see Orssaud (*apud* Biscop 1997:47).
[745] Dyson 1968
[746] For a general discussion of *brittle ware* see Bartl *et al.* 1995; Vokaer 2005; 2010.
[747] Bartl *et al.* 1995:168-70; Vokaer 2007:703 (figs. 7-9).
[748] Vokaer 2010:615-9.
[749] Orssaud & Sodini 2003 (Dehes); Vokaer 2010:622; Schneider *et al.* 2007:718-9.
[750] Abadie-Reynal & Martz 2010:840 (Zeugma); Bartl *et al.* 1995:175 (Table 1).
[751] Vokaer 2010:123 (with fig. 12).

for the production of this fabric.[752] A similar argument was also formulated by Vokaer, who believes Fabric 1 to have originated in a karstified limestone area such as the Limestone Massif or the jebel Ansariye.[753] Fabric 4, which closely resembles Fabric 1 (though it also displays inclusions of iron oxide) was the sole supplier of Apamea from the Roman to the Abbasid period. In the Byzantine period, it enjoyed a wider distribution which reached Androna and Dibsi Faraj.[754] Analyses conducted on a fragment of a *tannour* found in Apamea (whose bulky core was no doubt made from local clay) have shown a match with the mineralogical composition of Fabric 4, thus suggesting production in the immediate hinterland of Apamea.[755] Finally, Fabric 6 (a sandy clay with fine quartz inclusions and high levels of Chromium) only appeared in the Byzantine period, but gained important shares in the early-Islamic period when it made up 25% of findings in Aleppo, 10% at Dibsi Faraj and 20% of *Brittle Ware* findings in the Euphrates Valley survey.[756] The origin of this fabric has been speculatively located in the ophiolitic zone between Antioch and the Taurus mountains on account of the high percentage of Chromium in the clay.[757]

Brittle Ware produced by workshops 1, 4, 6 appears to have thus originated in the Limestone Massif or its immediate periphery. The wide distribution enjoyed by common wares produced in these fabrics from the Byzantine to the Islamic period is evidence of the extent to which the area was able to participate in region-wide trade networks. In particular, the so-called "kitchen set" which comprised a cooking pot, a jug and a casserole (and, later on, the so-called holemouth pot) enjoyed exceptional popularity in northern Syria and as far east as the Khabur river. Within the Limestone Massif, *Brittle Ware* has been found on all the excavated sites: Dehes, Qal^{c}at Sem^{c}an, Burj Baqirha, Srir, Qal^{c}at Kalota and Sergilla. Although petrological analysis has only been conducted on samples from Dehes, the assumption must be that workshops 1 and 4 would have monopolised the rural markets of the massif.

We can now draw the conclusions to this section. During Late Antiquity, the basic unit of economic exploitation remained the peasant family or clan, whose archaeological counterpart is represented by the courtyard house. It is inside and around such dwellings that the vast majority of economic activities were undertaken: stables, storage facilities, kitchens and, most often, presses were located within the perimeter of the courtyards. However, the familial economy was also capable of developing more complex forms of economic exploitation: communal use of clusters of presses – which was argued for Behyo and Dehes – constitutes a further example of the solidification of village communities as described in section 4.2. Moreover, high-capacity presses located along the main routes linking neighbouring villages suggest that certain families or villages may have profited from leasing out their presses to

[752] Schneider *et al.* 2007:716.
[753] Vokaer 2010:616.
[754] Vokaer 2007:703; Schneider *et al.* 2010:716.
[755] Vokaer 2010:614.
[756] Vokaer 2007:703; 2010:615; Schneider *et al.* 2007:717.
[757] Schneider *et al.* 2007:717.

neighbours who did not have the same infrastructure. The detailed study of the presses of Dehes has also shown the extent to which these structures were capable of producing a surplus that could be marketed. While estimated capacities may have only represented maxima that were seldom attained, the sheer number and size of some of these installations leaves no doubt that production for the market was involved.

Village communities were not the only economic actors of the region: monasteries also played an important role in the agricultural landscape of the Limestone Massif. Surveys of monasteries in the northern chains of the massif have shown many of them were equipped with presses. Some such presses, such as those of Deir Dehes, had equal or superior capacities to the bigger presses of the villages, a fact that suggests that monasteries were able to draw upon significant agricultural resources.

The flourishing agricultural economy of the region left a trace not only in the archaeological record, but also in the literature: the *Life of Timothy*, to which we shall return at length in section 4.4, importantly shows how families were able to accumulate wealth with stock raising. The orations of Libanius and the Syriac *Life of Symeon Stylites*, on the other hand, shed light on the flourishing agricultural landscapes of the region by describing intercultivated orchards and irrigation systems.

More still, the economy of the Limestone Massif shows clear signs of being fully integrated in the wider regional and Mediterranean commercial networks: imports of LRA 1 and D Snp amphorae clearly attest to the penetration of Cilician and Black Sea oil/wine into the region. This, in turn, suggests that, in spite of the wide local availability of these products, villagers were capable of and willing to source foreign products, too. Moreover, the settlements of the Limestone Massif appear to have entertained constant commercial relations with Mesopotamia: the wide distribution that the Zeugma-produced NSA Type I amphorae enjoyed in the massif is mirrored by attestations of *Brittle Ware* produced by workshop 1. This latter was almost certainly located within the Limestone Massif or its immediate hinterland and its products were ubiquitous in northern Syria and as far east as the Khabur valley until the early-Abbasid period.

Several aspects remain, of course, to be clarified. In particular, consensus has yet to be reached on how agricultural surplus was moved out of the region. The commonly held view that LRA1 amphorae were used to ship oil/wine produced in the massif is unsatisfactory in view of the relatively rare attestations of these amphorae at excavated sites in the Limestone Massif and, more importantly, in the absence of convincing evidence for kiln sites in northern Syria. It is possible that these commodities were moved in animal skins and loaded onto amphorae at a later stage, but the only container whose area of production has been assigned to the region is the NSA Type II, which only became available in the 8th century.

Despite these problems, it may be concluded that the village society of the Limestone Massif was able to thrive in Late Antiquity on an economy based on mixed agricultural

production and stock raising. Made up of mostly small and medium exploitations, the agricultural economy of the region was nonetheless capable of producing significant surpluses, which we may speculate to have been sold at the rural fairs described by Theodoret. The integration of the region in all the commercial networks of northern Syria meant that its prosperity was not exclusively reliant on the maintenance of a single commercial route. This factor was key, as it will be seen in section 4.4, for the continued prosperity of the region in the early-Islamic period, when Mediterranean trade routes were increasingly de-potentiated.

4.4 Epilogue. After Byzantium

In this last section, we will analyse the evidence for the evolution of settlement patterns in the Limestone Massif after the demise of the Roman Empire in Syria. To a certain extent, we have already touched upon sources – such as the *Life of Timothy* of Kakhushta – which describe rural life in the massif after the Arab takeover.

With few exceptions, scholars have tended to interpret the seventh and eighth centuries as a period of decline and even complete depopulation in the Levantine countryside. As far as the Limestone Massif is concerned, Tchalenko viewed the cause of this decline in Pirennian terms and placed the end of settlement in the mid-seventh century; but the excavations of Dehes, Qal^{c}at Sem^{c}an and Sergilla put this interpretation into serious question. Faced with a ceramic sequence that in some cases continued uninterrupted into the eleventh century, Tate opted for a Malthusian interpretation, by which he identified settlement from the mid-sixth to the eleventh century as characterised by long-term decline that followed – as a natural consequence – a demographic optimum in the early-sixth century.

Recent reassessments of earlier excavations (such as Magness's on Dehes, see above, 3.2) and increasingly improved chronologies for Islamic common wares and amphorae have begun to show that neither the Umayyad nor the early-Abbasid period were characterised by a marked decline in settlement. This finds confirmation in the scanty literary and epigraphic evidence that we possess for this period.

Qal^{c}at Sem^{c}an remained settled until at least the eleventh century. Soon after the battle of the Yarmuk, the troops of Khalid ibn al-Walid invaded northern Syria and took Beroia. Between this and the conquest of Antioch, the Arabs raided Qal^{c}at Sem^{c}an. Both Michael the Syrian and Barhebraeus tell us that the Arab troops descended on Qal^{c}at Sem^{c}an during a festival and caught a great crowd of pilgrims by surprise – with many being killed while others were taken away into captivity.[758] However, the raid does not seem to have had any direct impact on the occupation of the site: excavation along the *via sacra* leading up to the enclosure has demonstrated a continuity of use for all the shops and reception buildings up to at least the

[758] Mich. Syr. II p. 422; Barhebr. I p. 94 (tr. Budge).

mid-seventh century.[759] However, the late-seventh to ninth centuries were characterised by a transformation in the nature of settlement in Qal^{c}at Sem^{c}an whose features remains difficult to specify. The material evidence seems to suggest a partial decline of the site as a pilgrimage centre: two of the three entrances in the main gate of the enclosure were closed while the mosaics of the baptistery were removed and its area probably witnessed domestic occupation. Two Muslim burials were also set outside the entrance to the baptistery, a proof that Islamisation of the region had slowly begun toward the eighth century.[760] In the mid-tenth century the west wing of the cruciform *martyrium* was transformed into a fortified *kastron* – a first step in the militarisation of the site connected to the Byzantine reconquest of Antioch and Apamea and which would characterise Qal^{c}at Sem^{c}an for the best part of the following century.[761] However, this phase was also characterised by a renovation of the cultic structures of the *martyrium*, most notably the east basilica which was restored in AD 979.[762] The conflict between Byzantines and Hamdanids and (later) Fatimids determined a prolonged phase of strife which resulted in the devastation of the site of Qal^{c}at Sem^{c}an in AD 983 and 1017. At that time still, however, the monastery appears to have been prosperous and its hinterland populated as the accounts of Yahya of Antioch and Ibn al-^{c}Adim of Aleppo confirm. More than a century later, when Nur al-Din conquered northern Syria (AD 1149-50), the monastery was still occupied by monks for the sultan decided to return it to them after having conquered it. Only toward the end of the twelfth century was the site finally described as abandoned by al-Hawari (d. 1215). [763]

The continued occupation of Deir Sem^{c}an and Qal^{c}at Sem^{c}an through to the twelfth century, however, may be explained away in view of the "exceptional character" of this site, which was a pilgrimage centre and situated in a strategic location. Such was Tchalenko's view, which saw Qal^{c}at Sem^{c}an as a *unicum* in a vastly depopulated region.[764]

To what extent, therefore, can the chronology of settlement of Qal^{c}at Sem^{c}an be applied to the rest of the massif? As far as monastic settlement is concerned, there is little doubt that the biggest centres of the region continued to thrive long after the Muslim takeover. In the plain of Dana, the two monasteries of Teleda and Eusebonas (Burj es-Sab^{c}a) remained very much active until at least the tenth century. Jacob of Edessa spent more than two decades in these monasteries and died in Teleda in AD 708.[765] The great monastery of Teleda remained the core of the Jacobite church until it fell into the hands of the Byzantines in the mid-tenth century. Up to that point, monks and hegumens of Teleda had been chosen as bishops or Jacobite

[759] In the reception building V01 the last floor was laid on top of a filling dated to the mid-seventh century. See in particular Sodini *et al.* 2010:811-2 (Tb. 2). On the shops see Pieri 2011.
[760] Eddé & Sodini 2005:468.
[761] A Greek inscription records the building of the *kastron* under the patriarch Christophoros (Jarry 1966 n. 2 = Yon & Gatier 2009 n. 20).
[762] Donceel-Voûte 1988:225-40. See also Buchet *et al.* 2009:321-4.
[763] Buchet *et al.* 2009:325; Nasrallah 1970:343.
[764] Tchalenko 1953-8 I:206.
[765] On the monastery of Teleda (Tell ^{c}Adah) see Ruggieri 1992.

patriarchs.[766] The monastery of Burj es-Sab^{c}a was still certainly active in the mid-ninth century, when it may have been re-founded as a Melkite monastery – as a Syriac inscription found on this site would suggest.[767] But the monasteries of the Dana plain were not the only ones to survive long after the Muslim conquest. The Jacobite patriarchs John IV (AD 910-22) and VI (AD 954-7) came from the stylite monastery of Qurzahil located along the western slopes of the jebel Sem^{c}an.[768] The *Life of Timothy* of Kakhushta, which refers to the period between the mid-eighth and mid-ninth century leaves no doubt that several monastic centres still existed at this time in the northern chains of the massif. Timothy himself, a recluse or stylite, founded two monasteries in Kafr Zuma and Kakhushta and another holy man was based in Babisqa.[769] Little is known, instead, of the condition of monasteries in the jebel Zawiyé after the Muslim conquest. The only exception is that of the monastery of Rasm al-Nawus, where one of the biggest coin hoards of seventh-century *solidi* was found including *fleur-de-coin* issues of AD 681.[770]

Monasteries did not survive as isolated cells of settlement in a void landscape. The handful of inscriptions dated after the sixth century does suggest a continuation of settlement that is confirmed by literary and archaeological evidence. In particular, one should note the three building inscriptions of Kafr Kermin, Deir Malik (Dana plain) and Kafr Lab (j.Sem^{c}an), respectively dated to AD 712/3, 735/6 and 772/3 which refer to the building of houses and wells.[771]

Our best source for the eighth century is no doubt the *Life of Timothy* of Kakhushta, which we have already had the chance to mention. Preserved in two Arabic manuscripts of the fourteenth century (and in a Georgian abridgement), the *Life* conjures up the picture of a densely settled countryside during the reign of Harun al-Rashid (AD 786-809) and stands as clear evidence to the survival of the social and economic regime that we have described for the late antique period.[772] While many of the toponyms mentioned in the *Life* are not firmly identified, there is

[766] For example John V (AD 936-53), see Mich. Syr. III p. 463.
[767] *PPUAES* IVB 19 (AD 858/9). The expression ܐܪܝܕ ܐܝ ܠܘܝܕ can only indicate a Melkite monastery. Littmann found this rather puzzling given the proximity of the Monophysite monastery of Tell ^{c}Adah, but the *Life of Timothy* of Kakhushta has convincingly shown how the massif had at least been partially converted to the Melkite creed by the mid-ninth century. Foss 2007:99.
[768] Mich. Syr. III, p. 121; 124.
[769] The exact nature of Timothy's monastic establishments is not always clear. For Kakhushta, P. Wood (2011) has recently argued that the village itself was conceived as a monastic community and has ruled out the establishment of an actual monastery by Timothy. However, some passages of the life clearly refer to the monastery as a building, e. g. *V. Timothy* §P26. 8 (where the "gate of the monastery", ريدلا باب is clearly indicated). In Kafr Zuma, it would appear that Timothy joined a pre-existing monastery, which was located in the hinterland of the village: *V. Timothy* §S12. 5.
[770] Morrisson 1972.
[771] Jarry 1967 n. 11; *Id*. 1966:115; *PPUAES* IVB 51.
[772] For the manuscript tradition see Lamoreaux & Cairala 2000:441-55. The dating of the life mainly rests on the mention of the patriarch Theodoret and of his captivity in Baghdad at the court of Harun al Rashid. Theodoret of Antioch was already in office since at least before the seventh oecumenical council of Nicea (AD 787) and probably as early as AD 781 if Mansi's dating of a synod called in Antioch by Theodoret is correct (Mansi XII cols. 809B-902A). For the sources on Theodoret see *PMBZ* 7288. For an overview of the historical implications of the *Life* see Foss 2007.

little doubt that its narrative relates to the area encompassing the jebel Wastani, al-ᶜAla and Barisha.[773] In this region, villages were still numerous: thus, on his way from Kafr Zuma to Antioch, Timothy encounters many settlements whose names he asks to his travelling companions.[774] References to a great number of villages abound through the *Life*. The villagers of Kakhushta were apparently freeholders: for example, a man is said to have sold his own house and land while Timothy himself – before dying – promised to ask God to maintain the current condition so that "your village (will) have no proprietor other than yourselves".[775] The social structure had changed but little in comparison with Late Antiquity: at the core of the rural society is the extended household (that of Timothy was a *frérèche* household, for example) identified with the courtyard house. Above it is the village whose government is in the hands of a council of village elders and of the local clergy. Finally, above the individual village is the figure of the holy man (Timothy himself, but also the unnamed saint of Babisqa and a certain Alexander) who exerts his authority, much in the same way as Symeon Stylites in the fifth century, over a number of villages – solving internal controversies, helping locate scarce resources and petitioning the caliph through the patriarch Theodoret in order to obtain lower taxes and a lifting of the ban on church building. The *Life* also allows us a glance into village interaction and its limits: religious festivals were apparently frequently held in Kakhushta attracting a crowd from several nearby villages and also people from further away. At the same time, and in apparent contradiction to this, it would appear that people and information travelled relatively short distances: after Timothy's flight from his native village, his family was unable to find him despite the fact that Kafr Zuma – the village where Timothy grew up – was situated less than a day's march away. Looking at the economy of the massif through the Life, it is surprising to find that agriculture plays a much smaller role than in the *Life of Symeon*. Only in one case does Timothy perform a miracle to end a drought while crops and fields are seldom mentioned.[776] On the contrary, animal rearing plays a bigger role, though this may be because it represented the main source of income of Timothy's family. The economy remained monetised: alongside the donations in coin received by Timothy (which would not, of course, be definitive proof of monetised transactions), people are often involved in sales and purchases while a teacher based in Kafr Zuma is explicitly said to have had money – perhaps earned as a salary.[777] The survival of a monetary economy in the massif is confirmed by finds at Qalᶜat Semᶜan and Dehes – though comparison between them yields occasionally contrasting results. In Dehes, issues of the seventh century (AD 610-694) comprise 41 coins (or ca. 15% of the total) which

[773] Kafr Zuma, the village where Timothy grew up is explicitly said to be in the j. al-ᶜAla (*V. Timothy* §P13. 1) and close to Imma (§S2. 2). On another occasion, the village of Tizin (= Khirbet Tezin in the jebel Barisha) is mentioned (§P91). Finally, the frequent mentions of an unnamed holy man in Babisqa suggest again a proximity to the jebel Barisha.
[774] *V. Timothy* §P8. 2.
[775] *V. Timothy* §S48. 3.
[776] *V. Timothy* §S30.
[777] *V. Timothy* §S4. 1.

become 54 (or 19%) when the Arab-Byzantine coins of the early-Umayyad period are taken into account.[778] The fact that most of these coins were issued in Constantinople suggests a survival of commercial transactions with Byzantium well after the Arab conquest – with Antioch acting as the most likely proxy.[779] Umayyad coins issued before and after the reform number 21 (ca. 8%) while Abbasid issues (AD 750-800) make up only ca. 3% of the finds. This pattern is partially reversed in Qal^{c}at Sem^{c}an, where seventh-century issues only amount to 3.5% of the total while Umayyad and Abbasid coins constitute respectively 30-34% (135 to 153 coins) and 9.5% (43 coins) of the total.[780] The reasons for such discordance are not straightforward, but are likely to be associated with the change (discussed above) in the nature of settlement at Qal^{c}at Sem^{c}an after the sixth century.

Thus, the majority of Umayyad and Abbasid coins (149) come from the soundings dug in the western portico of the baptistery and are associated with cooking wares (both Brittle and buff-fabric cooking ware) and *eggshell* fine wares (dated mid-8th/mid-9th c.) – a fact that may suggest domestic occupation of some wealth in this area.[781]

If the limited numismatic evidence for seventh-century occupation in Qal^{c}at Sem^{c}an may thus be linked to its diminished popularity as a pilgrimage centre, the wealth of seventh century emissions in Dehes and the still significant number of Umayyad coins suggest prosperity and the survival of a monetised village economy into the lifetime of Timothy.

On the other hand, the maintenance of vibrant commercial activities is best witnessed by the widespread diffusion of Umayyad and Abbasid shapes of *Brittle Ware* produced in workshops 1 and 4. We have seen above that these workshops and the corresponding fabrics are likely to have been based somewhere in the area of the Limestone Massif, with workshop 1 probably being closer to Aleppo and workshop 4 to Apamea. Cooking pots produced by these workshops – and especially the tall-necked cooking pot and the so-called holemouth pot dominated the regional repertoire of cooking wares from the seventh to the tenth century (Fig.4.15).

[778] For coins in Dehes see Morrisson (*apud* Sodini *et al.* 1980:267-87). A recent update of the 1980 catalogue is given in Sodini & Morrisson 2011:135 (Tb. 1) where a comparison between coinage in Dehes and Qal^{c}at Sem^{c}an is also presented (*ibid.* , 134-8).
[779] Vorderstrasse 2005:499 (Chart 2).
[780] Sodini & Morrisson 2011:135 (Tb. 1).
[781] Sodini & Morrisson 2011:127-8. Orssaud & Sodini 2003 (*Brittle Ware*); Blanc & Orssaud 2005 (*Eggshell* fine wares).

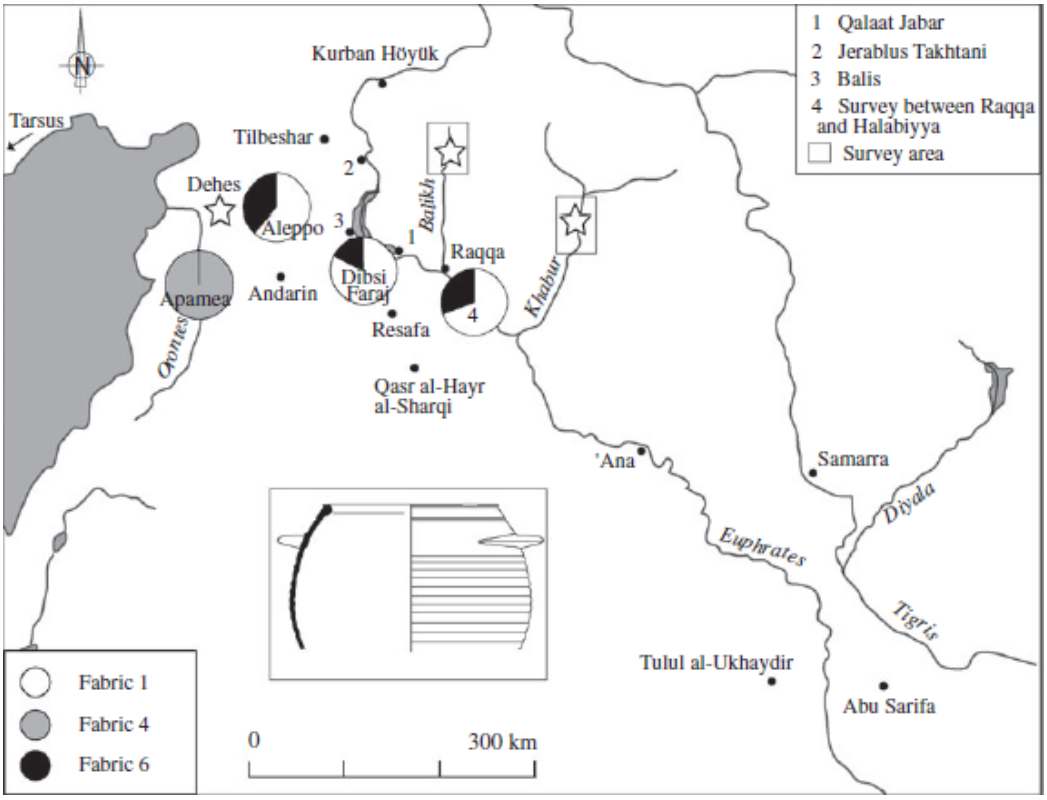

Fig.4.15. Distribution of the *Brittle Ware* holemouth pot between the 8th and 10th century (Vokaer 2010:625)

This evidence puts traditional views on the decline or "stagnation" of the region into question and suggests that long-term social and economic trends which developed in the late Roman period were little affected by the Arab takeover. As for earlier sections of this thesis, a *caveat* concerning the distribution of our evidence must be specified. Sources like the *Life of Timothy*, while providing glimpses of the everyday life in a group of eighth-century villages in the northern Limestone Massif are likely to reflect the condition of settlement only in a relatively small area. Similarly, dated inscriptions from the mid-seventh to the ninth century come mostly from the Dana plain and its immediate hinterland – a part of the massif that was in all likelihood continuously occupied from the Bronze Age to modern times – and tell us little about how settlement developed in the rest of the region. The distribution of the material evidence remains, on the other hand, rather patchy and does not always yield homogenous results – as the comparison of coinage and pottery found in Dehes and Qal^{c}at Sem^{c}an has shown. Other sites for which pottery dated to the Islamic period is available are Srir, Burj Baqirha, Sergilla and probably Huarte.[782] Srir and Baqirha, which had hosted hilltop sanctuaries in the Roman period, were respectively turned into a stylite monastery and a private dwelling in the Byzantine and

[782] For Huarte, Siebert & Delplace (*apud* Canivet & Canivet 1987:357; Pl. XLXXII. 5) seemingly refer to *Brittle Ware* holemouth pots. Several lamps are also dated from the seventh to the mid-eighth century (*Eid*. 1987:347-9).

Umayyad period and remained occupied through the early Abbasid period.[783] In Sergilla, instead, a preliminary study of the Islamic pottery suggests that the village was almost completely abandoned during the first half of the eighth century (though House IX, which we have discussed above, continued to be occupied until the ninth century).[784]

In the lack of extensive pottery surveys, and bearing in mind the problems that a chronology based on masonry presents (see section 3.2), one should refrain from readily extending the conclusions drawn for Dehes, Qal^{c}at Sem^{c}an or Sergilla to the rest of the region. Reason for caution is found in the data gathered by the Amuq valley project (AVRP), which provides a useful comparative case. Surface pottery collection has shown that only 23% of the recorded sites of the Amuq were occupied in the Early Islamic period (7th-10th century) and that only 39% of the Late Antique sites remained settled into the Islamic period.[785] Continuing a tendency begun in the Byzantine period, settlement in the Amuq became increasingly clustered, thus witnessing a decrease in the absolute number of sites combined with a growth in the average settlement size.[786] We cannot rule out that a similar reduction in absolute numbers of sites affected the Limestone Massif as well. Indeed, the vast majority of our data comes from middle-to-large sized settlements (Dehes ca. 10 ha; Deir Sem^{c}an 15 ha; Sergilla 8 ha; al-Bara 50 ha) and from monasteries (Deir Dehes, Srir, Qal^{c}at Kalota), while almost nothing is known about the fate of smaller villages and hamlets. If any assessment of settlement patterns after the Arab takeover is thus bound to remain preliminary at this stage, the evidence presented above does suggest that – for the sites from which archaeological and literary evidence is available – settlement continued uninterrupted into the Abbasid period and, occasionally, beyond that point. With the ceramic evidence and coinage attesting to the survival of a monetised economy and of commercial exchanges in this period, the argument about the rapid worsening in the quality of settlement after the mid-sixth century (the so-called "stagnation" theory proposed by Georges Tate) is put into question. It will be appropriate to recall that this view is chiefly based on two (debatable) observations: that building activity ceased in the mid-sixth century; and that the rapid accumulation of occupation layers from the seventh century attests to poorer conditions.[787] However, the former observation is countered by material and epigraphic evidence. Leaving aside church building and building activity in monastic centres, we are left with at least three eighth-century inscriptions that attest to the building of dwellings in the sites of Kafr Kermin (AD 716/7), Deir Malik (AD 735/6) and Kafr Lab (AD 772/3).[788] As for archaeological contexts, the recent excavation of a storage facility near the south-west corner of the W church

[783] For Srir see Callot 1997:740. Here, the diagnostic pottery for the Islamic period consists mostly of *Brittle Ware* long-necked cooking pots (dated to the Umayyad period), holemouth pots with zigzag decoration (Abbasid) and glazed pottery (Abbasid). See Rousset 1998b. For Burj Baqirha:Rousset 1999.
[784] *Syrie du Nord* 2005:9.
[785] Gerritsen *et al.* 2008:267.
[786] Casana & Wilkinson 2005:45.
[787] For the former see chiefly Tate 1992; for the latter Sodini *et al.* 1980; Bavant & Orssaud 2001.
[788] Respectively Jarry 1967 n. 11; *Id.* 1966:115; PUAES IVB 51. Trombley's longer list (Trombley 2004:357-8) includes many wrong or highly disputed readings.

of Dehes has shown that the surviving structure (with a rectangular plan measuring 8.5*11.5 m and walls built in double masonry) cannot be earlier than the late-seventh century given that eulogies of Symeon Stylites were found trapped in the beaten earth which had been laid beneath the tiles of the roof of this building.[789] Still in Dehes, the re-use of decorated blocks in the walls of press P27 has led Callot to propose an Umayyad date for this structure.[790] Therefore, building activity did continue in the Islamic period, though there is no doubt that we will need a far larger sample of excavated sites before we can verify its full extent.

Indeed, if a certain degree of continuity seems apparent until the early-Abbasid period, this does not mean that the Arab takeover of northern Syria did not bring about change in the region. Perhaps the most significant rupture involved the rapid retrogression of Hellenisation that followed the end of Byzantine rule in the region. Little more than fifty years after the Yarmuk battle, the monks of Burj es-Sab^{c}a in the plain of Dana, one of the most thoroughly Hellenised parts of the Massif in the earlier period, had no longer any knowledge of Greek.[791] In part, this may be explained as a rational rejection of Greek on the part of the Jacobite communities, for whom this was the language of the Melkite church. Indeed, Jacob of Edessa's stay in the monastery of Burj es-Sab^{c}a – during which he had lectured in Greek – was brought to an abrupt end due to the opposition of some monks "who hated the Greeks".[792] But passages of the chronicle of Michael Syrian and the *Life of Timothy* suggest that – if the northern Limestone Massif had been mostly Jacobite in the sixth century – Melkites had become an important force from at least the early eighth century.[793]

Rather than being a consequence of religious disputes, the retrogression of Greek may have been a direct consequence of the disappearance of the Byzantine state in northern Syria. Used for centuries as a means for the Syriac-speaking rural population to interact with the surrounding centres of power and to move across society, Greek was rapidly abandoned when these incentives to learn it were lost. In the world of the caliphate, the centre of power shifted away from the Mediterranean and to the south (Damascus) and east (Baghdad), and Arabic would gradually become the new *lingua franca*. The pace and scale with which Arabic and the Arabs penetrated the Limestone Massif following the conquest of the region by Abu 'Ubayda remains difficult to frame with precision. Looking at the epigraphic record, Frank Trombley tends to downplay the impact of Muslim immigration into the region before the twelfth century,

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789 Callot 2005; *Syrie du Nord* 2006:19. The dumping of these eulogies, which may have been stored somewhere in the nearby W church, is hard to envisage for a period when Dehes was still largely a Christian settlement. For this reason, a date in the advanced Umayyad or Abbasid period must be regarded as the earliest.

790 Callot (pers. comm.).

791 Mich. Syr. II p. 472. ܘܣܢܝܬ ܒܗ̇ ܠܫܢܐ ܝܘܢܝܐ ܕܐܘܣܦܘ ܗܘܐ (Barhebr. , *Chr. Eccl.* I p. 291, ed. Abbeloos & Lamy).

792 ܘܐܬܬܦܪܫ ܠܗ ܡܢ ܐܢܫܐ ܕܣܢܝܢ ܠܝܘܢܝܐ. ܘܥܒܕ ܐܝܟ... (Barhebr, *ibid.*)

793 In AD 721/2, for example, the building of a church by the Jacobite patriarch Mar Elias in Sermada in the Dana plain was greatly opposed by the inhabitants who were said to have been Chalcedonians (Mich. Syr. II p. 491).

when the first Arabic inscriptions appear.[794] Yet, both the *Life of Timothy* and recent excavations in al-Bara in the jebel Zawiyé have begun to unveil a rather different picture. The ruins of a mosque – readily identifiable for its well preserved *mirhab* – were identified in the central quarter of al-Bara by Tchalenko and assumed by him to be contemporary with the five chapels spread across the village one of which is dated to AH 497/AD 1103/4.[795] A sounding dug in the area of the *mirhab*, however, has shown that the mosque had two phases, and that the earlier one was probably established in the Umayyad period.[796]

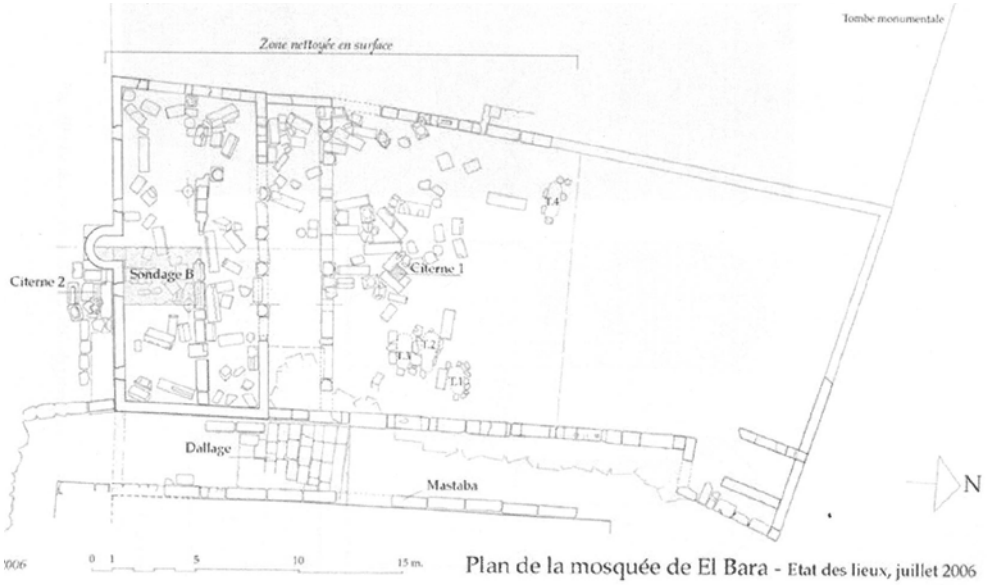

Fig.4.16. The mosque of al-Bara showing the position of sounding B (*Syrie du Nord* 2007: fig.9)

At al-Bara, the largest settlement in the massif in the Byzantine period, Islamisation thus started fairly early on. To the eighth or ninth century must also be dated the two Muslim burials found in front of the main gateway of Qal^{c}at Sem^{c}an.[797] Both al-Bara and Qal^{c}at Sem^{c}an were sites of key strategic importance and it is thus possible that the earliest Muslim communities were established there as garrisons. However, the *Life of Timothy* also attests to the presence of Muslims in the no doubt less substantial village of Kakhushta, thus proving that Islam had spread deeper into the region by the late-eighth century at the latest.[798] Early immigration of Arabs in the Antiochene has also been posited for the Amuq valley, where the excavators have identified in the immigration of marshland Arabs the main reason for the shift of settlement away of upland sites and into the marshes at the periphery of the lake of Antioch.[799]

To conclude: the evidence presented in this section suggests that settlement in the Limestone Massif not only survived but also thrived into the Islamic period. While social and

[794] Trombley 2004:362.
[795] Sourdel-Thomine *apud* Tchalenko 1953-8 III:109-10 n. 1; 115.
[796] *Syrie du Nord* 2007:22-3. Charpentier & Abdulkarim 2008:47-9.
[797] Sodini & Morrisson 2011:126.
[798] *V. Timothy* §S44.
[799] Gerritsen *et al.* 2008:274.

economic determinants were largely in keeping with the earlier Byzantine period, considerable change did occur. The religious configuration of the region gradually changed including not only the new Islamic element, but also an increasing number of Melkite Christians. Many monastic centres remained fully operative until at least the tenth century, but showed signs of gradual decline thereafter and had generally disappeared by the twelfth century.[800] The abandonment of Greek as the language of power and public display may have been among the reasons for the decline in the epigraphic record that so much contributed to the formulation of the decline/stagnation theories for the ensuing period. While Syriac epigraphy flourished between the fifth and tenth century (ca. 100 texts have been recorded, of which twenty-seven are dated), its range remained largely limited to the jebel Barisha, Halaqa and Sem^{c}an. Syriac epigraphy never took hold in the jebel Zawiyé while only a handful of texts – most of them simple graffiti – are known from the north-western jebels (Doueili, Wastani and al-^{c}Ala). The large numbers of Syriac graffiti containing names or simple religious invocations suggest that this change in the epigraphic custom was not so much due to a fall in average literacy as to diminished interest in inscriptions as a form of public display in the context of private architecture.[801] This was a long-term phenomenon that undoubtedly began as early as the sixth century when funerary inscriptions – which until the end of the fifth century made up between half and one third of the dated corpus – quickly disappear from the epigraphic record.[802] Inscriptions dating houses, albeit fewer in number, continued to be attested throughout the sixth century and up to at least AD 578/9. After that, inscriptions become fewer in number and are limited to churches and monastic buildings: only in AD 716/7 does another private inscription, this time in Syriac, crop up.

If a change in the epigraphic custom is to be blamed for the decreasing number of dated inscriptions from the sixth century onwards, little remains to uphold the traditional views on decline and stagnation from the mid-sixth century. Yet, even when prosperity and a certain degree of continuity is posited for the Umayyad and early-Abbasid period – as this section has attempted to do – we are left with a fundamental question. Was the region declining in the ninth and tenth centuries? If so, why did it happen? The answer, or rather the answers must be sought in a variety of complex factors that affected the region on the political, demographical and economic level. As far as politics are concerned, the Byzantine re-conquest of the tenth century is the first conflict to have left a clear trace in the archaeology of the region: the many Byzantine fortlets established in the massif and the evidence for violent destruction found at Qal^{c}at Sem^{c}an leave no doubt that the wars waged by Byzantines, Hamdanids and Fatimids in this period had a

[800] Eddé & Sodini 2005:473.
[801] For a discussion of the Syriac epigraphic record of the Limestone Massif see now Briquel Chatonnet & Desreumaux 2011.
[802] Between AD 500-600 only three dated funerary inscriptions are attested, two of which belonged to priests. *IGLS* II 355 (AD 521 from Gol Gibrin in the j. Sem^{c}an); *SEG* 37 1428 (AD 534 from Huarte in the j. Zawiyé); Jarry 1992 n. 7 (AD 569/70 from al-Bara in the j. Zawiyé).

devastating effect on the region.[803] This state of affairs continued into the eleventh century, when the Crusaders took possession of much of the region and established several more forts, especially in the jebel Zawiyé.

Wars and the progressive weakening of the Abbasid state from the beginning of the ninth century were also likely responsible for worsening economic conditions in the region. *NSA* Type II amphorae, which may have carried the wine of the Limestone Massif, disappear from the material record in the ninth century.[804] A century later, *Brittle Ware* production in fabric 1 – which was likely manufactured in the region of the Limestone Massif – also came to an end. It is difficult to know whether the interruption of these productions should be seen as a consequence of a diminished demand or whether the problem lay with production centres; whichever the case, the cessation of such trading activities probably had an impact on settlement in the massif.

In terms of demographics, immigration of new nomadic groups into the region is likely to have caused a transformation in settlement patterns. In the neighbouring Amuq valley, the immigration of marsh Arabs (the al-Zuṭṭ tribes) decreed by the Umayyad caliphs was likely responsible for the shift in settlement from uplands to marshlands.[805] In the Limestone Massif, and especially along its margins, Arab immigration was certainly a factor already in the eighth century. However, these early migrations do not seem to have involved a re-nomidisation of the region. Rather, tribes such as the Banu Tanukh and the Yemeni tribes that occupied the Orontes valley had quickly become sedentarised. Only in the tenth century – with the arrival of a new and much bigger wave of nomadic migrations set off by the movement of Qarmatian tribes in the eastern Arabian peninsula – did nomadism once again appear in the Limestone Massif. According to al-Masᶜudi, the Orontes valley was depopulated by the 960s due to Bedouin encroachment in the region, which led to large-scale conversion of arable land into pasture.[806] Around the same time, the first fortification of Harim – later to become a Crusader stronghold – was allegedly built by the Byzantines to protect their grazing animals from nomadic raids in the region.[807]

All these factors may have together contributed to the gradual depopulation of the region, which the material evidence at excavated sites suggests to have been at an advanced stage in the eleventh century. Yet, while demographic decline may have set in in the ninth century, some evidence suggests that agricultural exploitation continued to remain intense in parts of the region. In a notice by the scribe al-Muhallab referred to the period of the Fatimid

[803] The campaigns of Nicephoros Phocas between AD 966-8 led to the devastation of several villages in the region including Tizin (modern Khirbet Tizin in the j. Barisha), Maᶜrret Misrin and Maᶜrret al-Noᶜman. See Yahya ibn Saᶜid, p. 108; 117 (ed. Krachkovsky & Vasiliev).
[804] Pieri 2005b:585.
[805] By Muᶜwiya in AD 669/70 (al-Baladhuri, *Futuh*, 162), al-Walid I and Yazid I, who also introduced water buffaloes to this region (*Ibid.* , 168). See Gerritsen *et al.* 2008:267-74.
[806] al-Masᶜudi, *Kitab al-tanbih* (p. 131-2); Cappel 1994:114-6.
[807] Ibn Saddad, *Aᶜlaq*, p. 33 (tr. Eddé).

caliph al-ᶜAziz (AD 976-96), the northern chains of the Limestone Massif (defined as the region between al-Athrib and Artah from east to west) and the northern jebel Zawiyé were said to be net exporters of olive oil, which was transported overland as far as al-Raqqa and from there to inner Mesopotamia via the Euphrates.[808] About a century later, in the mid-eleventh century, the Christian physician Ibn Butlan found the countryside between Antioch and Aleppo dotted with villages and noted the widespread cultivation of wheat and barley grown under olive trees.[809] Moreover, the large village of ᶜImm (ancient Imma), where Ibn Butlan stayed for a short while, was said to be still largely Christian, with four functioning churches and a population that ate pork and drank wine.[810] Around the same time, the Persian traveller Nasir-i-Khusraw stopped at Maᶜrret en-Noᶜman where he noted the abundance of olive groves, fig and pistachio orchards and vineyards.[811] Of course, one must be careful to avoid accepting either testimony as reflecting conditions in the whole of the Limestone Massif: both Ibn Butlan and Nasir-i-Khusraw described zones (respectively the countryside lining the Antioch-Aleppo road and the important centre of Maᶜrret en-Noᶜman, at the easternmost margins of the jebel Zawiyé) which likely never witnessed a significant decline in settlement. Moreover, while doubtless attesting to continued agricultural exploitation in the region, neither author sheds light on broader demographic conditions. Nonetheless, these sources show that agriculture (and, most importantly, arboriculture) continued to be widely practiced in the region even during its darkest centuries.

The reign of Nur al-Din (AD 1146-74) and the establishment of the Ayyubid principality of Aleppo under Salah al-Din and his son al-Zahir Ghazi (from AD 1183) signalled the beginning of a new phase of settlement in the massif.[812] No longer a frontier zone, the region witnessed renewed occupation of villages as demonstrated by the many funerary inscriptions dated to the twelfth and thirteenth century.

Mirroring the penetration of settlement witnessed at the beginning of the Roman period, Ayyubid population centres were primarily established in or around the inner plains and *dolines* of the northern chains of the massif: the Dana plain (and its neighbouring settlements of Burdaqli, Daret ᶜAzzeh and Tell ᶜAqbrin), the *dolines* of Meᶜez, Kafr ᶜAruq, Deir Seta and Bamuqqa. But population also spread into more mountainous districts such as Dar Qita, Kaukanaya, Kafr Mares and Bshendlenteh.[813] In the jebel Zawiyé, inscriptions are fewer and mostly concentrated in the central section of the chain; the large centre of al-Bara clearly figures prominently, though funerary inscriptions have been also found in the mountain site of Rbeiᶜa and at Frikya, Dalloza and Kafr Lata.[814] Alongside the epigraphic evidence, the literary sources

[808] Ibn al-Adim, *Bughya* I 60 (ed. Zakkar).
[809] Yaqut, *Buldan* I, p. 382-5; Le Strange 1890:370.
[810] Yaqut, *Buldan* III, p. 729; Conrad 2001:150.
[811] Nasir-i-Khusraw, *Safarnama* (tr. Thackston, p. 11).
[812] On rural conditions in the Ayyubid principality of Aleppo see Eddé 1999:487-511
[813] Sourdel-Thomine 1954:195-7
[814] Sourdel-Thomine 1954:194.

attest to a flourishing agricultural activity. Thus, Ibn al-Adim – a thirteenth-century Aleppean historian – noted the pervasive presence of olive orchards in all the massifs, while vineyards were grown in the jebels Sem[c]an and Zawiyé.[815] In continuity with the Roman and Byzantine period, arboriculture flourished in the entire region in a regime of dry agriculture, though some small orchards were also irrigated with the aid of springs such as those situated in the villages of ar-Riha and Kafr Lata in the jebel Zawiyé.[816] As for patterns of landholding, small holders probably continued to play an important role, though large estates controlled by absentee owners appear to have become an increasingly significant factor. For example, the family of the historian Ibn al-Adim (the Banu al-Adim) owned – by the time of his writing – no less than five villages including Urim al-Kubra in the south-eastern jebel Sem[c]an and Kafr Yahmul north of Ma[c]rret Misrin.[817]

The Ayyubid revival of settlement in the Limestone Massif, no doubt a consequence of a re-established order in the region, appears to have come to an end with the Mongol invasion of AD 1260. At that time, settlement in the region was far from reaching the scale and degree of sophistication witnessed in the late Roman period. However, its gradual spreading from the inner plains and *dolines* into more soil-poor districts – a typical feature of the late-Hellenistic and early-Roman period (see above) – was already underway in the thirteenth century and may have led to similar results granted the survival of favourable conditions.

This quick survey of the history of settlement in the Limestone Massif after the Arab takeover of the region allows us to draw two important points that will be reprised in the general conclusions presented in the next chapter. First, there is little evidence to support the view that stagnation and a rapid decrease in the quality of settlement occurred in the mid-sixth century. Literary, epigraphic and archaeological sources suggest that this did not happen until at least after the reign of Harun al-Rashid, when the Abbasid caliphate gradually began to disintegrate leaving the doors open to new waves of nomadic immigration in the region and to raids conducted by the Byzantine forces. Second, that in order to thrive, settlement in the Limestone Massif needed to be framed within a solid institutional framework, be this the Roman Empire, the Umayyad and Abbasid caliphates or the Ayyubid principality of Aleppo. While the direct impact of such institutional framework on the socio-economic structure of the region was minimal, a solid power structure granted the conditions – namely security and connectivity – which proved necessary for rural settlement in marginal zones to flourish. Security was, in turn, vital for the establishment of markets and regional trade networks on which intensive settlement in marginal zones was always reliant.

[815] Ibn al-Adim, *Bughya* I, p. 411-24. Eddé & Sodini 2005:472. Yaqut (*Buldan* III, p. 728) gives the village as fully Christian in the thirteenth century.
[816] Ibn al-Adim, *Bughya* I 420; 422.
[817] Eddé 1999:367.

General Conclusions

In a recent book about the evolution of settlement dynamics in the Levant between the Umayyad and Abbasid period, Hugh Kennedy has argued that the conquest of marginal zones in the Near East depended on the presence of a booming demand for agricultural goods that made it profitable for settlers to overcome the difficulties posed by a challenging environment and invest resources (mostly their own human capital) in the valorisation of these regions.[818]

Such demand was, primarily, that of the urban markets that surrounded the rugged ecologies of *Gaulanitis*, *Auranitis* and the Limestone Massif. The city, which for most of our journey inside the realities of rural life has been confined to a distant background, should thus be brought to the fore in these concluding remarks. Indeed, the thriving of agrarian societies in marginal zones always depended on their ability to interact with the urban world. The rural society that emerges from obscurity in the late-first century Limestone Massif is one in which an indigenous culture intertwined with Hellenisation in a way that was only possible because of the integration of this region in the transport infrastructure and commercial networks of Greater Syria.

While the urban economy fuelled the intensification of agriculture in the marginal, the urban empires – whether the Roman Empire or the early Caliphate – succeeded in building a political and legal framework that, by ensuring security and providing (to a certain extent) a transport infrastructure that enhanced connectivity between micro-regions created the conditions for intensive settlement in marginal zones.

Cities and empires, while formally outsiders in the day to day dynamics of rural life, played vital roles in the long-term processes that determined the alternations of phases of intensification and abatement. Rather than ecological, as *Annaliste*-inspired historiography would have it, these processes were thus historical. Thus, the decline of marginal zones in the mid-Abbasid period, for example, was due to an increasingly weaker power structure that was unable to maintain those most important of prerequisites for settlement in the marginal: security and connectivity.

As carbon is an essential prerequisite for life, so functioning political structures and growing urban markets were instrumental in determining the conditions for intensive settlement in the marginal. Once the framework had been set, the valorisation of marginal zones proceeded independently from external forces: the determination of settlement patterns, the construction of particular social and economic structures and the development of the agricultural economy were in the hands of the locals rather than in those of emperors, urban aristocrats and bureaucrats.

The unprecedented intensification of settlement in the Roman and Byzantine periods happened as a result of the interaction between indigenous communities of distant

[818] Kennedy 2011:xii.

sedentarisation (we have observed that, in the Hawran and Golan, the first settlements dated as far back as the Chalcolithic) who resided in the plains and semi-nomads and nomads residing in the confining marginal zones. The best evidence of this comes from *Auranitis*, where the crest of the jebel acted as an area of contact where nomads and sedentaries coexisted.

Within a framework of economic security, this interaction created the conditions for a shift in the mode of settlement. Areas of human aggregation were mostly determined by ecological factors such as the availability of fertile land and water resources, but also by the interplay between the religious landscape and the need for security: in such conditions, hilltop sanctuaries functioned as central places around which settlement polarised (e.g. the sanctuary of Baalshamin at Si^{c} and the hilltop sanctuaries in the Limestone Massif).

The origin of the people who settled the marginal in the Roman and Byzantine periods varied widely according to which region is taken into account. For example, Jewish settlers played a vital part in the peopling of the central Golan Heights, while Ituraean nomads were just as significant for the development of the north-eastern part of this region. In *Auranitis*, the epigraphic evidence suggests that groups of Safaitic nomads stemming from the tribes who roamed the Harra pre-desert and the eastern slopes of the jebel al-^{c}Arab may have sedentarised further west in this region. In the Limestone Massif, we have little direct evidence of nomadic settlement, though archaeologists working in the area have interpreted findings for the late-Hellenistic period in terms of semi-nomadic or seasonal occupation.

Except for episodes limited in time and space (e.g. Herod's immigration policies), large-scale settlement of these regions does not seem to have been achieved by settlement of veterans or the immigration of foreigners. The mixed onomastic pool in the three regions surveyed suggests an important degree of Hellenisation by the second century AD, but also the strong survival of a Semitic background which finds its way in the forms of social organisation and in the religious landscape. Although not quantitatively significant, the immigration of outsiders was almost certainly very important in qualitative terms. The few foreigners who settled in the Limestone Massif appear to have assumed prominent roles in the developing communities. Roman citizens of Italian origin such as C.Marius Silvanus and Fronto in Qal^{c}at Kalota might have been among those who, with their presence in the region, stimulated locals to adopt some of the Latin onomastic customs (*nuda nomina*).

Across the period under consideration, the core social and economic institution was always the family or the extended family, the clan. It seems likely that most villages in the three regions studied originated from the synoikism of separate clans, a process that finds articulation in the evolution of housing groups, which gradually expanded until they formed a seemingly cohesive settlement. The structuring of village communities was gradual and passed through communal involvement in religious enterprises and building projects, as the epigraphic evidence from the Hawran, the Limestone Massif and other marginal regions, including Mount Hermon proves. Another aspect that may have bound the first communities of settlers together, alongside

religious activity, was the challenge of land clearance and the communal effort that it might have required. It is likely that a significant part of works of land division, including regular field patterning as visible in the Limestone Massif was village- rather than imperial-led. The case of *Auranitis* might reveal a different historical reality, for here centuriations have been identified, though even they appear to have coexisted with smaller-scale property patterns – like that which survive to this day in the hinterland of Si^{c}.

The hierarchisation of village society and local religious life was the first tangible result of the gradual consolidation of communities: it was particularly developed in the Hawran, where inscriptions attest to various levels of village governance, including village *archontes* and *stratêgoi*. The pyramidal stratification of village organisation, which in the late Roman period was often topped by the village priest, was balanced by the lasting importance of collegial bodies such as the colleges of *epimelêtai*, the *pentaprôtoi* and *dekaprôtoi* and village elders which appear frequently in the literary and epigraphic sources. In Late Antiquity, above village hierarchies, local and external power brokers emerge forcefully: holy men, urbanite aristocrats and powerful bureaucrats were all active in these regions at various degrees. Of these, only the holy man was a direct emanation of the rural milieu (even though in many cases ascetics were born in affluent urban families) and thus better placed to understand the grievances of this world. Although cases of exploitation of groups by *potentes* certainly existed, the evidence suggests that villagers and village institutions maintained a dialogue with their patrons, and were often able to negotiate better deals or, as a last measure, to switch to a new protector if the old one was unable to deliver the results expected from him.

As far as the economy of marginal zones is concerned, Horden and Purcell rightly noted the centrality of risk-avoidance, which was achieved by combining polyculture and herding with investment in cash crops. This latter component provided the local settlers, in good years, with enough surplus to be marketed locally and regionally. The surplus margins offered by arboriculture, which the archaeological evidence posits, were the driving force behind the development of the region. A money economy was clearly at work in these regions: hundreds of coins have been found in the limited excavations carried out so far in the rural dwellings. Agricultural surplus was likely marketed at local fairs, as the sources confirm, but also in the large cities nearby: from Abedrapsas in the fourth century to Timothy and his fellow monks in the ninth, the villagers often descended to the cities on business. Cities like Apamea, Antioch, Beroia were not only consumers, but also proxies through which agricultural goods passed from hand to hand reaching far-away consumption zones .Such was the case of the wine of the jebel al-^{c}Arab, that probably reached Yathrib (Medina) and Mecca before Mohammad and was prized among the Ghassanids. A similar case of commerce via proxy sites also explains the continued production of NSA II amphorae, vessels that were likely produced along the slopes of the Limestone Massif and which continued to reach the Euphrates and Khabur valleys until the tenth century and occasionally beyond.

All of this was possible only so long as connectivity was maintained. Unrest and warfare jeopardised the basic conditions of agricultural growth in the marginal and brought settlement to a halt: this is what happened in the mid-Abbasid period, when the weakening of the caliphate created the conditions for continuous Byzantine raids in the Limestone Massif; as a result, a region still populous in the ninth century was almost abandoned by the eleventh. The Ayyubid principalities were once again able to restore security, leading to a renewed (if short-lived) wave of settlement intensification.

The flourishing economy of marginal zones in late Antiquity created also the conditions for unprecedented social mobility. Individuals born in what was once a cultural backwater were able to make successful careers in the military and civil administrations and in the clergy, whilst maintaining a connection with their native communities. This connection was sometimes exemplified by donations made to the local churches or, we may surmise, by the building of public structures (e.g. the baths of Sergilla) which were meant to benefit the community at large while highlighting the extent of the benefactors' achievements. A larger group of migrants is also shown to have constituted expatriate communities, which were not – despite a still popular theory – communities of luxury traders, but rather a highly mixed milieu that included merchants, businessmen and clergymen. Migrations and social rise testify to the economic vitality of the Limestone Massif and should not be characterised as effects of Malthusian overpopulation.

To be sure, demographic growth across the period must have been very significant, as the exponential growth of sites attested by dated inscriptions suggests (particularly in the jebel Zawiyé of the Limestone Massif). Yet, this growth did not generate a mass of impoverished peasants. Rather, agriculturists appear to have attempted to find solutions to lowering returns from the land by implementing rudimental improvements to agricultural technology – an aspect most visible in the evolution of pressing technology in the Limestone Massif and *Auranitis*. In the latter case, labour intensification, as predicted by E.Boserup in conditions of lowering returns, found its expression in the appearance of the so-called improved wineries – large multi-compartment wine presses that allowed to produce large quantities of must with a highly effective use of labour. In the Limestone Massif, attempts at intensification must be identified in the consistent switch from lever-and-beam presses to lever-and-screw presses as recognised at Dehes.

We should now relate our findings to the historiographical debates outlined in the first part of this thesis (Part I).

We began by looking at how the 'ancient economy' debate has shaped the way agrarian societies in the Classical and post-Classical worlds are characterised (section 1.1.1). In particular, six key areas of research have emerged as the defining characters of the ancient countryside: patterns of landownership and landholding; the economic performance of agriculture and, connected to this, the legitimacy of speaking of a market-oriented agrarian

economy; the role of institutions in the economic development of the countryside; and finally the question of technological development and economic rationalism.

Regarding property patterns, small freeholders appear to have dominated the scene in marginal zones. While large estates are occasionally encountered (e.g. the *epoikia* and the *domus divina* of Hormisdas in the Limestone Massif) and there is some scope to believe that villages had communal lands and structures (like press clusters and threshing floors) the small agricultural enterprise centred on the courtyard house defined the economy of marginal zones.

From Weber to Finley and up to Horden and Purcell, this type of economic regime has been characterised in terms of survival strategies: the traditional argument goes that only the large estate and the entrepreneurial urban upper classes were capable of systematically shifting agrarian economy away from subsistence and onto market production. The evidence gathered in this thesis suggests, instead, that substantial economic development could also be achieved by middling farmers. The evolution of House IX at Sergilla is paradigmatic: an initially modest dwelling, this house gradually grew to become a central courtyard house, with paved courtyard and polychromatic mosaic floors. The growth in the living standards of the inhabitants was likely the result of the profits that the large hybrid press that was part of the house afforded to its inhabitants. This structure was for long open to the outside of the house, suggesting that it might have been leased out as well as employed to process the family's wine and oil crops.

Data concerning the performance of this agrarian economy are scarce, but estimates presented in Parts II and IV concerning the scale of cash crop production provide an order of magnitude of the economic capabilities of marginal zones. The estimates of production presented in Part IV make the market vocation of this economy seem almost incontrovertible. Surplus margins were doubtless marketed locally to make up for micro-regional shortages, but also in the nearby urban markets. Albeit the means by which agricultural goods produced in these regions were transported outside of them remain unknown (perishable containers such as animal skins are likely candidates), it seems clear that the famous oil and wine of Antioch, which Libanius lauded in his *Antiochikos* satisfied a demand that the urban markets of Antioch and Apamea did not exhaust. The economy to which marginal zones participated was one that escaped the norms of the consumer city model. Not only did local products reach distant markets (e.g. the staples transported in NSA II amphorae, *Brittle Ware* from the area of the Limestone Massif or the wine of the 'mountain of Bostra'), but also, and in contradiction with the norms of *Naturalwirtschaft*, imports reached marginal zones. The findings of amphorae from Sinope and Zeugma at several excavated sites in the Limestone Massif (see section 4.3) show that even a commodity like wine (or oil?), which was widely available locally, was occasionally imported from far afield. The fact that rural families could treat themselves to choice wines from abroad is further evidence of the relative wealth that they were able to achieve in Late Antiquity.

Far from being on the brink of starvation, as they have been often portrayed (see 1.1.1 above), the inhabitants of marginal zones, supported by their economy, were capable of climbing the social ladder as the many examples outlined in section 4.2 have shown. It is within a framework of prosperous economic conditions rather than as a consequence of Malthusian demographics that we should interpret the wave of migrations from the Limestone Massif in Late Antiquity.

The story of success that Levantine marginal zones tell us was one which, albeit fuelled by external factors (security and connectivity), had local origins and can only be understood in terms of endogenous development. We will thus conclude by recalling Horden and Purcell's *The Corrupting Sea*, to whose concepts of Mediterranean marginality and connectivity this thesis owes much of its methodological approach. In referring to the rural realities of the Limestone Massif, Horden and Purcell rightly rejected Tate's isolationist interpretation of local settlement history, which saw the rise and decline of the region in terms of Malthusian demographics (see 1.1.2). Yet, to this theory, they opposed that of an interconnected reality dominated by the interplay between the rocky countryside and the surrounding cities of Antioch and Apamea, in which surplus was relentlessly extracted by the greedy urban elites. In doing so, these most forceful advocates of connectivity failed to grasp the extent to which the rural societies of the ancient Mediterranean could maintain independence while also striving for improving living standards. This thesis has shown that, in the ancient Mediterranean, the Malthusian peasant and the exploited peasant were not the only possible economic actors: in the marginal zones of the Levant, the middling peasant and independent villager not only existed, but was also the driving force behind that unprecedented extension of agricultural lands which, in some parts of the Levant, remains unparalleled to this day.

Bibliography

Abadie-Reynal, C. and Martz, A.-S., 2010. 'La céramique commune de Zeugma et les problèmes de provenance (viieme-viieme s.)', in Menechelli, S., Santoro, S., Pasquinucci, M., and Guiducci, G. (eds.), *LRCW3 Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean. Archaeology and Archaeometry. Comparison between western and eastern Mediterranean. Vol. II*. Oxford: Archaeopress, pp.839-845.

Abdulkarim, M., 2002-2003. 'Reconnaissance d'une limitation antique dans la région d'Emèse (Homs) en Syrie', *AArchSyr* 45-46, pp. 261-274.

Abdulkarim, M., Bildgen, P., Bildgen, A., and Gilg, J.-P., 2004a. 'L'apport des textes de Strabon dans l'analyse environnementale et historique des sites de la vallée de l'Oronte (Syrie du Nord)', *Photo Interprétation* 40 2-3, pp. 5-14.

Abdulkarim, M., Bildgen, A., Bildgen, P., and Goubert, J.-P., 2004b. 'Étude des caractéristiques géologiques hydro-géologiques et des terroirs des villages antiques du Gebel Siman en Syrie du Nord', *Photo Interprétation* 40 2-3, pp. 17-24.

Abdulkarim, M., Bildgen, A., Bildgen, P., and Goubert, J.-P., 2004c. 'Comparaison des potentialités naturelles d'accueil des gebels Siman et Zawiyé, vis à vis des choix d'implantation des sites antiques romano-byzantins de Syrie du Nord', *Photo Interprétation* 40 2-3, pp. 27-37.

Abdulkarim, M. and Charpentier, G., 2009. 'La gestion de l'eau dans un village des campagnes de la Syrie du Nord', in al-Dbiyat, M. and Mouton, M. (eds.), *Stratégies d'acquisition de l'eau et société au Moyen-Orient depuis l'antiquité : études de cas* (Bibliothèque archéologique et historique, t.186). Beirut: IFPO, pp. 149-156.

Abdulkarim, M. and Olesti-Vila, O., 2007. 'Les centuriationes dans la province romaine de Syrie: nouvelles perspectives d'étude', *Syria* 84, pp. 249-276.

Adan-Bayewitz, D., 1993. *Common Pottery in Galilee: a Study of Local Trade* Ramat-Gan: Bar-Ilan University Press.

Akahane, S., 2003. 'Landforms and geology of the Rouj Basin', in Iwasaki, T. and Tsuneki, A. (eds.), *Archaeology of the Rouj Basin. A Regional Study of the Transition from Village to City in Northwest Syria*. Tsukaba: University of Tsukaba, pp.11-28.

Aliquot, J., 2008. 'Sanctuaries and villages on Mt Hermon during the Roman period', in Kaizer, T. (ed.), *The Variety of Local Religious Life in the Roman Near East in the Hellenistic and Roman Periods*. Leiden: Brill, pp.73-96.

al-Maqdissi, M. and Braemer, F., 206. 'Labwe (Syrie): une ville du Bronze ancien du Levant du Sud', *Paléorient* 32.1, pp. 113-124.

Alpi, F., 2003-2004. 'Sévère d'Antioche et le massacre de Kefr Kermin', *Tempora. Annales d'histoire et d'archéologie* 14-15, pp. 133-152.

Alston, R., 1997. 'Houses and households in Roman Egypt', in Laurence, R. and Wallace-Hadrill, A. (eds.), *Domestic Space in the Roman World: Pompeii and Beyond*. Portsmouth, RI: Journal of Roman Archaeology, pp.25-39.

Alston, R., 2002. *The City in Roman and Byzantine Egypt* London: Routledge

Amit, D. and Baruch, Y., 2009. 'Wine presses with stone rollers: an ancient phenomenon seen in a new light', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and Wine Presses in Israel from the Hellenistic, Roman and Byzantine Periods*. Oxford: Archaeopress, pp.429-440.

Amouretti, M.-C., 1986. *Le pain et l'huile dans la Grèce antique. De l'araire au moulin* Paris: Les Belles Lettres.

Amouretti, M.-C., Comet, G., Ney, C., and Paillet, J.-L., 1984. 'A propos du pressoir à huile: de l'archéologie industrielle à l'histoire', *MEFRA* 96, pp. 379-421.

Andreau, J., 1995. 'Présentation : vingt ans après l'Économie antique de Moses I. Finley', *Annales ESC* 50 5, pp. 947-960.

Arkwright, W., 1911. 'Penalties in Lycian epitaphs of Hellenistic and Roman times', *JHS* 31, pp. 269-275.

Arnault, A., 2010. *Sia : sanctuaire, village et environnement au IIIe siècle apr. J.-C.* Memoire de Master 2. Université Paris 1-Sorbonne.

Avramea, A., 1995. 'Mort loin de la patrie. L'apport des inscriptions paléochrétiennes', in Mango, C. and Cavallo, G. (eds.), *Epigrafia medievale greca e latina : ideologia e funzione : atti del Seminario di Erice, 12-18 settembre 1991*. Spoleto: Centro Italiano di Studi sull'Alto Medioevo, pp.1-65.

Ayalon, E., Frankel, R., and Kloner, A. (eds.), 2009. *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods* (BAR International Series 1972). Oxford: Archaeopress

Balty, J. and Balty, J. C., 1981. 'L'Apamène antique et les limites de la Syria Secunda', in Fahd, T. (ed.), *La géographie administrative et politique d'Alexandre à Mahomet. Actes du Colloque de Strasbourg 14-16 juin 1979*. Leiden: Brill, pp.41-75.

Banaji, J, 2001. *Agrarian Change in Late Antiquity: Gold, Labour, and Aristocratic Dominance*. Oxford: Oxford University Press.

Bankes, W. J., 1830. *Narrative of the Life and Adventures of Giovanni Finati* 2 vols. London: John Murray.

Barker, G., 1991. 'Two Italys, one valley: an *Annaliste* perspective', in Bintliff, J. (ed.), *The Annales School and Archaeology*. Leicester: Leicester University Press, pp.34-56.

Barker, G., 1995. *The Biferno Valley Survey : the Archaeological and Geomorphological Record* London & New York: Leicester University Press.

Baroni, A., 1984. 'I terreni e i privilegi del tempio di Zeus a Baitokaike', in Virgilio, B. (ed.), *Studi Ellenistici I*. Pisa: Giardini Editori, pp.135-167.

Barret, M., Courtois, L., Orssaud, D., and Villeneuve, F., 1985. 'Le matériau céramique', in Dentzer, J.-M, Gentelle, P., and Villeneuve, F. (eds.), *Hauran I. Recherches archéologiques sur la Syrie du Sud à l'epoque hellenistique et romaine*. Paris: Geuthner, pp.260-275.

Bartl, K., Schneider, G., and Böhme, S., 1995. 'Notes on 'Brittle Wares' in north-eastern Syria', *Levant* 27, pp. 165-277.

Bauzou, T., 1985. 'Les voies de communication dans le Hauran à l'époque romaine', in Dentzer, J.-M (ed.), *Hauran I. Recherches archéologiques sur la Syrie du sud à l'époque hellénistique et romaine. Volume I*. Paris: Geuthner, pp.137-165.

Bauzou, T., 2003. 'Le réseau routier romain de la Syrie du Sud (Hawran, Jawlan)', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.

Bavant, B. and Orssaud, D., 2001. 'Stratigraphie et typologie. Problèmes posés par l'utilisation de la céramique comme critière de datation: l'example de Déhès', in Villeneuve, E. and Watson, P. M. (eds.), *La céramique byzantine et proto-islamique en Syrie-Jordanie (IVe-VIIIe siécles apr. J.-C.)*. Beirut: IFPO, pp.33-48.

Bavant, B., Sodini, J.-P., and Tate, G., 1983. 'La fouille de Dehes: 1976-1979', *AArchSyr* 33, pp. 83-97.

Below, G. von, 1893. 'Karl Lamprecht, Deutsche Geschichte', *Historische Zeitschrift* 71, pp. 465-498.

Ben-David, H., 1998. 'Oil presses and oil production in the Golan in the Mishnaic and Talmudic periods', *Atiqot*, pp. 34 1-61.

Ben-David, H., 2006. 'Late antique Gaulanitis. Settlement patterns of Christians and Jews in rural landscape', in Lewin, A. and Pellegrini, P. (ed.), *Settlements and demography in the Near East : proceedings of the colloquium, Matera, 27-29 October 2005*. Pisa: Istituti editoriali e poligrafici internazionali, pp.35-50.

Ben-David, H., 2009a. 'An oil press at 'Ein Nashut', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods*. Oxford: Archaeopress, pp.71-74.

Ben-David, H., 2009b. 'A survey of oil presses in the Golan Heights. Technological aspects', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods*. Oxford: Archaeopress, pp.93 -96.

Ben-Efraim, I., 1998. 'Central Golan Heights, Survey', *ESI* 18, pp. 5-6.

Berlin, A., 2006. *Gamla I. The Pottery of the Second Temple Period. The Shmarya Gutmann Excavations 1976-1989* Jerusalem: Israel Antiquities Authority.

Besançon, J. and Geyer, B., 1995. 'La cuvette de Rug (Syrie du Nord). Conditions naturelles et les étapes de la mise en valeur', *Syria* 72, pp. 307-355.

Bickerman, E., 1957. 'Tchalenko, Villages antiques de la Syrie du Nord', *The Classical Weekly* 50, pp. 153-154.

Bintliff, J. (ed.), 1991. *The Annales School and Archaeology* Leicester: Leicester University Press.

Biscop, J.-L., 1997. *Deir Déhès monastère d'Antiochène: étude architecturale* (Bibliothèque archéologique et historique, t. 148.). Beirut: IFPO.

Biscop, J.-L., 2011. 'Le sanctuaire et le village des pèlerins à Saint-Syméon-le-Stylite (Syrie du Nord) : nouvelles recherches, nouvelles méthodes', *CRAI* Nov-Déc 2009, pp. 1421-1444.

Blanc, P.-M., 2003. 'Conclusions: l'histoire du site', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.33-37.

Blanc, P.-M. and Orssaud, D., 2005. 'Une ceramique luxueuse trouvée a Qal'at Sem'an', in Baratte, F., Déroche, V., Jolivet-Lévy, C., and Pitarkis, B. (eds.), *Mélanges Jean-Pierre Sodini*. Paris: Association des Amis du Centre d'Histoire et Civilisation de Byzance, pp. 555-564.

Bloch, M., 2010. *The Historian's Craft* Manchester: Manchester University Press.

Bloch, M. and Febvre, L., 1929. 'A nos lecteurs', *Annales d'histoire économique et sociale* 1, pp. 1-2.

Boffo, L., 2004. 'Dal Vicino-Oriente all'Italia settentrionale: persone e mestieri', *MUSJ* 70 355-380.

Bopp, E. M., 2006. *Die antike Wohnkultur des Hauran in Syrien* (Orient-Archäologie, Bd. 19). Rahden: Verlag Marie Leidorf.

Boserup, E., 1965. *The Conditions of Agricultural Growth* London: Allen & Unwin.

Bowersock, G., 1983. *Roman Arabia* Cambridge, MA: Harvard University Press.

Bowman, A. and Wilson, A. (eds.), 2009. *Quantifying the Roman Economy: Methods and Problems* (Oxford Studies on the Roman Economy). Oxford: Oxford University Press.

Bowman, A. and Wilson, A., (eds.), forthcoming. *The Roman Agricultural Economy: Organisation, Investment and Production* Oxford: Oxford University Press.

Bradfield, R., 2010. *A Syrian Archive : Being a Study of the Early Churches and Convents on the Limestone Massif, North Syria, AD. 324-451, and of Their Consequences in the Far West (to c. 540)* Derby: Independently published.

Braemer, F., 1984. 'Prospections archéologiques dans le Hawran (Syrie)', *Syria* 61, pp. 219-250.

Braemer, F., 1988. 'Prospections archéologiques dans le Hawran II. Les réseaux de l'eau', *Syria* 65, pp. 99-137.

Braemer, F., 1991-a. 'Tell Zheir: village d'altitude dans le Jebel el Arab', *Paléorient* 17 1, pp. 143-152.

Braemer, F., 1993. 'Prospections archéologiques dans le Hawran (Syrie) III', *Syria* 70, pp. 117-170.

Braemer, F., Davtian, G., and Clauss-Balty, J., 2008. 'L'habitat rural en Syrie du sud: quels contextes territoriaux?', in Clauss-Balty, J. (ed.), *Hauran III.L'habitat dans les campagnes de Syrie du Sud aux époques classique et médiévale*. Beirut: IFPO, pp.7-18.

Braemer, F., Dentzer, J.-M, Kalos, M., and Tondon, P., 1999. 'Tours à noyau chemisé de Syrie du Sud', *Syria* 76, pp. 151-176.

Braemer, F., Nicolle, C., Criaud, H., Davtian, G., Fiaccavento, C., Flambeaux, A., Liétar, C., Ghanem, G., Vila, E., Herveux, L., Ibanez, J.-J., and Shaarani, W., 2011. 'Qarassa, un site du Bronze ancien et Moyen en Syrie du sud. Travaux 2007-2010', *Syria* 88, pp. 225-250.

Braudel, F., 1958. 'Histoire et sciences Sociales: la longue durée', *Annales ESC* 13, pp. 725-753.

Braudel, F., 1963. 'Pour une historie sérielle: Séville et l'Atlantique (1504-1650)', *Annales ESC* 18, pp. 541-553.

Braudel, F., 1972. *The Mediterranean and the Mediterranean World in the Age of Philip II.* 2 vols. London: Collins.

Briquel Chatonnet, F. and Dereumaux, A., 2011. 'Syriac inscriptions in Syria', *Hugoye: Journal of Syriac Studies* 14, pp. 27-44.

Brock, S., 1979. 'The Fenqitho of the monastery of Mar Gabriel in Tur 'Abdin', *Ostkirchliche Studien* 28, pp. 168-182.

Broshi, M., 1979. 'The Population of western Palestine in the Roman-Byzantine period', *BASOR* 236, pp. 1-10.

Brown, P., 1971. 'The rise and function of the Holy Man', *JRS* 61, pp. 80-101.

Brown, P., 1976. 'Town, village and the Holy Man: the case of Syria', in Pippidi, D. M. (ed.), *Assimilation et résistance à la culture gréco-romaine dans le monde ancien travaux du VIe Congrès international d'études classiques (Madrid, septembre 1974)*. Bucharest & Paris: Editura Academiei & Les Belles Lettres, pp.213-220.

Brun, J.-P., 2003. *Le vin et l'huile dans la Méditerranée antique : viticulture, oléiculture et procédés de transformation* Paris: Errance.

Brun, J.-P., 2004. *Archéologie du vin et de l'huile dans l'empire romaine* Paris: Errance.

Brun, J.-P. and Amouretti, M.-C. (eds.), 1993. *La production du vin et de l'huile en Méditerranée* (BCH Supplément 26). Paris: De Boccard.

Buchet, L., Sodini, J.-P., Biscop, J.-L., Blanc, P.-M., Kazanski, M., and Pieri, D., 2009. 'Massacre dans le monastère de Qal'at Sem'an, Syrie (extrémité ouest du martyrium, BW5)', in Buchet, L., Rigeade, C., Séguy, I., and Signoli, M. (eds.), *Vers une anthrpologie des catastrophes. Actes des 9e Journées Anthropologiques de Valbonne*. Antibes: APDCA, pp.317-332.

Buckingham, J. S., 1825. *Travels among the Tribes Inhabiting the Countries East of Syria and Palestine* London: Longman, Hurst, Rees, Orme.

Burckhardt, J. L., 1822. *Travels in Syria and in the Holy Land* London: John Murray.

Burdon, D. J. and Safadi, C., 1964. 'The karst groundwaters of Syria', *Journal of Hydrology* 2 324.

Burke, P., 1990. *The French Historical Revolution : the Annales school, 1929-89* Stanford, CA: Stanford University Press.

Callot, O., 1984. *Huileries antiques de Syrie du Nord* (Bibliothèque archéologique et historique, t. 108). Paris: Geuthner.

Callot, O., 1997. 'La christianisation des sanctuaires romains de la Syrie du Nord', *Topoi* 7, pp. 735-750.

Callot, O., 1998. 'Notes de numismatique hellénistique', *Syria* 75, pp. 81-87.

Callot, O., 2002-2003. 'Les broyeurs à rouleaux de Syrie du Nord', *AArchSyr* 45-6, pp. 341-344.

Callot, O., 2005. 'Encore des eulogies de Saint Syméon l'Alépin...Déhès 2004', in Baratte, F., Déroche, V., Jolivet-Lévy, C., and Pitarkis, B. (eds.), *Mélanges Jean-Pierre Sodini*. Paris: Association des Amis du Centre d'Histoire et Civilisation de Byzance, pp.705-712.

Callot, O. and Gatier, P.-L., 1999. 'Des dieux, des tombeaux, des donateurs: les réseau des sanctuaires en Syrie du Nord', *Topoi* 9.2 665-688.

Callot, O. and Gatier, P.-L., 2004. 'Les stylites de l'Antiochène', *Topoi Suppl.5* 573-596.

Callot, O. and Marcillet-Jaubert, J., 1984. 'Hauts-lieux de Syrie du Nord', in Roux, G. (ed.), *Temples et sanctuaires: séminaire de recherche 1981-1983*. Lyon: De Boccard, pp.185-202.

Canivet, P., 1969. 'Catégories sociales et titulature laique et ecclésiastique dans l'Histoire Philothée de Théodoret de Cyr', *Byzantion* 39, pp. 209-250.

Canivet, P., 1977. *Le monachisme syrien selon Théodoret de Cyr* (Théologie historique 42). Paris: Beauchesne.

Canivet, P. and Canivet, M. T., 1968. 'Recherches sur le site de Nikertai', *AArchSyr* 17, pp. 37-54.

Canivet, P. and Canivet, M. T., 1971. 'Sites chrétiens d'Apamène', *Syria* 48, pp. 295-321.

Canivet, P. and Canivet, M. T., 1987. *Hwarte: sanctuaire chrétien d'Apamène, IVe-VIe siècles* (Bibliothèque archéologique et historique, t. 122). Paris: Geuthner.

Capogrossi Colognesi, L., 1990. *Economie antiche e capitalismo moderno: la sfida di Max Weber* Rome: Laterza.

Capogrossi Colognesi, L., 2009. 'Da Weber a Finley. Una riconsiderazione', *Athenaeum* 97, pp. 285-294.

Cappel, A. J., 1994. 'The Byzantine response to the 'Arab (10th-11th centuries)', *Byzantinische Forschungen (Byz.For.)* 20, pp. 113-132.

Carandini, A., 1979. *L'anatomia della scimmia. La formazione economica della società prima del capitale : con un commento alle Forme che precedono la produzione capitalistica dai Grundrisse di Marx* Torino: Einaudi.

Carrié, J.-M., 1976. 'Patronage et propriété militaires au IVe siècle', *BCH* 100, pp. 159-176.

Carrié, J.-M., 1994. 'Dioclétien et la fiscalité', *Antiquité Tardive* 2, pp. 33-64.

Cartledge, P., 2002. 'The Economy (Economies) of Ancient Greece', in Scheidel, W. and von Reden, S. (ed.), *The Ancient Economy*. Edinburgh: Edinburgh University Press, pp.11-32.

Castellana, P., 2002-2003. 'Ricerche archeologiche nella Siria del Nord', *SOC Collectanea* 35-36, pp. 89-124.

Charpentier, G., 1994. 'Les bains de Sergilla', *Syria* 71, pp. 113-142.

Charpentier, G., 1995. 'Les petits bains proto-byzantins de la Syrie du Nord', *Topoi* 5, pp. 219-247.

Charpentier, G., 2001. 'Mission archéologique de Sergilla (Syrie du Nord)', *AArchSyr* 44, pp. 167-179.

Charpentier, G., 2005-2006. 'Les trous de mémoire', *Tempora.Annales d'histoire et d'archéologie* 16-17, pp. 99-112.

Charpentier, G. and Abdulkarim, M., 2008. 'Une première campagne d'étude sur la mosquée d'al-Bara', in Bartl, K. (ed.), *Residences, Castles, Settlements. Transformation Processes from Late Antiquity to Early Islam in Bilad al-Sham. Residenzen, Befestigungen, Siedlungen. Transformationsprozesse von der Spätantike bis in frühislamische Zeit in Bilad as-Sham: Proceedings of the International Conference held at Damascus, 5-9 November 2006. Beiträge des Internationalen Kolloquiums in Damaskus vom 5.-9. November 2006*. Rahden: Verlag Marie Leidorf, pp.45-56.

Chastagnol, A., 1958. 'Georges Tchalenko, Villages antiques de la Syrie du Nord', *Annales ESC* 13, pp. 375-378.

Chaunu, P., 1970. 'L'histoire sérielle, bilan et perspectives', *Revue Historique* 243, pp. 297-320.

Christensen, P., 2003. 'Economic rationalism in fourth-century Athens', *Greece & Rome* 50, pp. 1-26.

Clarke, D., 1973. 'Archaeology: the loss of innocence', *Antiquity* 47, pp. 6-18.

Clauss-Balty, J., 2008. 'Maisons romano-byzantines dans les villages de Batanée : missions 2002-2004', in Clauss-Balty, J. (ed.), *Hauran III.L'habitat dans les campagnes de Syrie du Sud aux époques classique et médiévale*. Beirut: IFPO, pp.41-104.

Clauss-Balty, J., 2010. 'Les villages et l'habitat rural à l'époque romano-byzantine: les cas de Sharah, sur le rebord nord-ouest du Leja', in al-Maqdissi, M., Braemer, F., and Dentzer, J.-M (ed.), *Hauran V. La Syrie du Sud du Néolithique à l'Antiquité tardive*. Beirut: IFPO, pp.199-214.

Clermont-Ganneau, C., 1880-1897. *Études d'archéologie orientale*. 2 vols. Paris: F.Vieweg.

Conrad, L., 2001. 'Ibn Butlan in Bilad al-Sham', in Thomas, D. (ed.), *Syrian Christians under Islam. The First Thousand Years*. Leiden: Brill, pp.131-157.

Courtois, J.-C., 1973. 'Prospection archéologique dans la moyenne vallée de l'Oronte (El-Ghab et Er-Roudj)', *Syria* 50, pp. 53-99.

Cracco Ruggini, L., 1959. 'Ebrei e Orientali nell'Italia settentrionale fra il IV e il VI secolo d.Cr.', *Studia et documenta historiae et iuris* 25, pp. 186-308.

Crawford, O. G. S., 1924. *Air Survey and Archaeology* Southampton: H.M. Stationery office.

Cresswell, R., 1965. 'Un pressoir a olives au Liban: Essai de Technologie Comparée', *L'Homme* 5, pp. 33-63.

Crone, P., 1987. *Meccan trade and the rise of Islam* Princeton, NJ: Princeton University Press.

Cumont, F., 1907. 'Monuments syriens', *CRAI* 51 7, pp. 447-455.

Cuvigny, H., 1996. 'The Amount of wages paid to the quarry-workers at Mons Claudianus', *JRS* 86, pp. 139-145.

Dain, A. and Rouillard, G., 1929-1930. 'Une inscription relative au droit d'asile, conservée au Louvre', *Byzantion* 5, pp. 315-326.

Dar, S. and Applebaum, S., 1986. *Lanscape and Pattern. An Archaeological survey of Samaria. 800 BCE - 636 CE* (BAR International Series 308). Oxford: Archaeopress.

Darrous, N. and Rohmer, J., 2004. 'Shahba-Philippopolis: essai de synthèse archéologique et historique', *Syria* 81, pp. 5-41.

Dauphin, C., 1981. 'Golan Survey 1980-1981', *IEJ* 31, pp. 239-240.

Dauphin, C., 1983a. 'Survey of the Byzantine sites in the Golan Heights', in Keller, D. R. and Rupp, D. W. (eds.), *Archaeological Survey in the Mediterranean Area*. Oxford: Archaeopress, pp.353-355.

Dauphin, C., 1983b. 'Golan Survey', *IEJ* 34, pp. 268-269.

Dauphin, C., 1984. 'Farj en Gaulanitide: refuge judéo-chrétien?', *Proche Orient Chrétien* 34, pp. 233-245.

Dauphin, C., 1986. 'Golan Survey', *IEJ* 36, pp. 273-275.

Dauphin, C., Brock, S., Gregg, R. C., and Beeston, A. F. L., 1996. 'Païens, juifs, judéo-chrétiens et musulmans en Gaulanitide: les inscriptions de Na'aran, Kafr Naffakh, Farj et Er-Ramthaniyye', *Proche Orient Chrétien* 46, pp. 305-340.

Dauphin, C. and Gibson, S., 1990. 'Landscape archaeology at er-Ramthaniyye in the Golan Heights', in Fiches, J.-L. and Van Der Leeuw, S. (ed.), *Archéologie et espaces. Actes des Xe rencontres internationales d'archéologie et d'histoire d'Antibes 19-20-21 octobres 1989*, pp. 35-45.

Dauphin, C. and Gibson, S., 1992-1993. 'Ancient settlements in their landscapes: the results of ten years of survey on the Golan Heights (1978-1988)', *Bulletin of the Anglo-Israel Archaeological Society* 12, pp. 7-31.

Dauphin, C. and Schonfield, J. J., 1983. 'Settlements of the Roman and Byzantine periods on the Golan Heights', *IEJ* 33, pp. 189-206.

Daux, G., 1977. 'Onomastique romaine d'expression grecque', in Pfaum, H.-G. and Duval, N. (ed.), *L'Onomastique latine. Paris, 13-15 octobre 1975*. pp. 405-417.

David, M and Mariotti, V., 2005. 'Da Kaprotabis ad Angera. L'epigrafe funeraria di un Siriano ai piedi delle Alpi', *Syria* 82, pp. 267-278.

De Giorgi, A., 2006. *Socio-Economic Studies in the Territory of Antioch in the High Roman Empire*. PhD thesis. Bryn Mawr College.

De Giorgi, A., 2007. 'The formation of a Roman landscape: the case of Antioch', *JRA* 20, pp. 283-298.

De Ligt, L., 1993. *Fairs and Markets in the Roman Empire : Economic and Social Aspects of Periodic Trade in a Pre-Industrial Society* Amsterdam: Gieben.

de Visscher, F., 1963. *Le droix des tombeaux romains* Milano: Giuffré.

De Vogüé, M., 1865-1877. *Syrie centrale. Architecture civile et religeuse du Ier au VIIe siècle*. 2 vols. Paris: J.Baudry.

Decker, M., 2001. *Agricultural Production and Trade in Oriens, 4th-7th Centuries AD.* 2 vols. DPhil thesis. University of Oxford.

Decker, M., 2009. *Tilling the Hateful Earth. Agricultural Production and Trade in the Late Antique East* (Oxford Studies in Byzantium). Oxford: Oxford University Press.

Deleage, A., 2012. *La capitation du Bas-Empire* Mâcon: Imprimerie Protat frères.

Delmaire, R., 1989. *Largesses sacrées et res privata: l'ærarium imperial et son administration du IVe au VIe siècle* Rome: École française de Rome.

Demesticha, S. and Michaelides, D., 2001. 'The excavation of a Late Roman 1 amphora kiln in Paphos, Cyprus', in Villeneuve, E. and Watson, P. M. (eds.), *La Céramique Byzantine et Proto-Islamique en Syrie-Jordanie (IVe-VIIIe siécles apr. J.-C.)*. Beirut: IFPO, pp.289-296.

Demicheli, A. M., 2000. *L'editto XIII di Giustiniano: in tema di amministrazione e fiscalità dell'Egitto bizantino* Turin: Giappichelli.

Dentzer, J.-M., 1985. 'Développement et culture de la Syrie du Sud dans la période préprovinciale (1er s. avant J.-C. - 1er s. après J.-C.)', in Dentzer, J.-M, Gentelle, P., and Villeneuve, F. (eds.), *Hauran I. Recherches archéologiques sur la Syrie du Sud à l'epoque hellenistique et romaine*. Paris: Geuthner, pp.387-420.

Dentzer, J.-M., 1999. 'L'éspace des tribus arabes à l'époque hellenistique et romaine: nomadisme, sédentarisation, urbanisation', *CRAI* 1999, pp. 243-251.

Dentzer, J.-M., 2003. 'Avant-propos: le choix du site de Si'8', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.5-6.

Dentzer, J.-M., Blanc, P.-M., Fournet, T., Kalos, M., and Renel, F., 2010. 'Formation et développement des villes en Syrie du Sud de l'époque hellénistique à l'époque byzantine: les examples de Bosra, Suweida, Shahba', in al-Maqdissi, M., Braemer, F., and Dentzer, J.-M (eds.), *Hauran V. La Syrie du Sud du Néolithique à l'Antiquité tardive*. Beirut: IFPO, pp.139-169.

Dentzer, J.-M., Braemer, F., Dentzer-Feydy, J., and Villeneuve, F., 1985. 'Six campagnes de fouilles à Si': développment et culture indigène en Syrie méridionale', *Damaszener Mitteilungen* 2, pp. 65-83.

Dentzer, J.-M., Kalos, M., Donceel, R., Tondon, P., Leblanc, J., Vallat, J. P., and Villeneuve, F., 2003. 'Les pressoirs à cuves multiples du Jebel al-'Arab', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.127-145.

Dentzer-Feydy, J., 1985. 'Décor architectural et developpement du Hauran dans l'Antiquité', in Dentzer, J.-M (ed.), *Hauran I. Recherches archéologiques sur la Syrie du sud à l'époque hellénistique et romaine. Volume I*. Paris: Geuthner, pp.261-309.

Dentzer-Feydy, J., Dentzer, J.-M, Blanc, P.-M., Piraud-Fournet, P., and Weber, T. M., 2009. *Mission archéologique syro-française à Sî' Mohafazat de Soueida. 17 mai-16 juin 2009. Rapport*. Unpublished material.

Dentzer-Feydy, J., Dentzer, J.-M, Blanc, P.-M., Piraud-Fournet, P., and Weber, T. M., 2010. *Mission archéologique syro-française à Sî' Mohafazat de Soueida. Rapport de mission - 17 mai-12 juin 2010*. Unpublished material.

Dignas, B., 2002. *Economy of the Sacred in Hellenistic and Roman Asia Minor* Oxford: Clarendon Press.

Dodd, E., 1961. *Byzantine Silver Stamps* Washington, DC: Dumbarton Oaks Research Library and Collection.

Dodd, E., 1968. 'Byzantine silver stamps: supplement II. More treasure from Syria', *DOP* 22, pp. 141-149.

Dodinet, M., Leblanc, J., and Vallat, J. P., 1994. 'Étude morphologique de paysages antiques de Syrie', in Doukellis, P. N. and Mendoni, L. G. (eds.), *Structures rurales et sociétés antiques. Actes du colloque de Corfou (14-16 mai 1992)*. Paris: Les Belles Lettres, pp.425-442.

Dodinet, M., Leblanc, J., Vallat, J. P., and Villeneuve, F., 1990. 'Le paysage antique en Syrie: l'example de Damas', *Syria* 67, pp. 339-355.

Donceel, R., 1998. 'Note sur la viticulture dans la region de Si-Qanaouat a la fin de l'antiquité', *Revue des archeologues et historiens d'art de Louvain* XXXI, pp. 45-62.

Donceel-Voûte, P., 1988. *Les pavements des églises byzantines de Syrie et du Liban : décor, archéologie et liturgie* (Publications d'histoire de l'art et d'archéologie de l'Université catholique de Louvain 69). 2 vols. Louvain-la-Neuve: Collège Erasme.

Doukellis P.N., 1995. *Libanios et la terre. Discours et idéologie politique* Beirut: IFPO.

Doukellis, P. N., 1996. 'Vivre et survivre dans la campagne syrienne en marge d'un livre récent sur les campagnes de la Syrie du Nord du IIe au VIIe siècles', *Journal of the Economic and Social History of the Orient* 39 2, pp. 170-179.

Drexhage, H.-J., 1991. *Preise, Mieten/Pachten, Kosten und Löhne im römischen Ägypten bis zum Regierungsantritt Diokletians* St. Katharinen: Scripta Mercaturae.

Drummond, A., 1754. *Travels Through Different Cities of Germany, Italy, Greece and Several Parts of Asia, as Far as the Banks of the Euphrates in a Series of Letters* London: W. Strahan.

Duclaux, A., 1994. *Ad ecclesiam confugere : naissance du droit d'asile dans les églises (IVe - milieu du Ve s.)* (De l'archéologie à l'histoire). Paris: De Boccard.

Dunand, M., 1930. 'Kanata et Kanaθa', *Syria* 11, pp. 272-279.

Dussaud, R. and Macler, F., 1903. *Missions dans les régions désertiques de la Syrie Moyenne* Paris: Imprinterie Nationale.

Dussaud, R., 1927. *Topographie historique de la Syrie antique et mediévale* Paris: Geuthner.

Dyson, S. L., 1968. *The commonware pottery: the brittle ware* (The excavations at Dura-Europos. Final report 4). New Haven, CT: Dura-Europus Publications.

Eddé, A.-M. and Sodini, J.-P. , 2005. 'Les villages de Syrie du Nord du VIIe au XIIIe siècle', in Lefort, J., Morrisson, C., and Sodini, J.-P. (eds.), *Villages dans l'empire byzantin, IVe-XVe siècles*. Paris: Lethielleux, pp.465-483.

Eddé, A.-M., 1999. *La principauté ayyoubide d'Alep (579/1184 - 658/1260)* Stuttgart: Steiner.

Ellis, S. P., 2000. *Roman housing* London: Duckworth.

Empereur, J.-Y. and Picon, M., 1989. 'Les régions de production d'amphores impériales en Méditerranée orientale', in *Amphores romaines et histoire économique : dix ans de*

recherche. Actes du colloque de Sienne, 22-24 mai 1986. Rome: École française de Rome, pp.223-248.

Epstein, C., 1985. 'Dolmens excavated in the Golan', *Atiqot* 12, pp. 20-58.

Epstein, C., 1993. 'Golan. Chalcolithic period to the Iron Age', in Stern, E. (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land. Vol.2: Emmaus-Jerusalem*. Jerusalem: Carta, The Israel Map & Publishing Company, pp.525-534.

Ewing, W., 1895. 'A journey in the Hauran', *PEQSt* 27, pp. 60-66; 131-184; 265-294; 346-368.

Febvre, L., 1922. *La Terre et l'évolution humaine (introduction géographique à l'histoire)* Paris: La Renaissance du Livre.

Febvre, L., 1941. 'Une nouvelle collection', *Annales d'histoire sociale* 3.3-4, pp. 179.

Feissel, D., 1980. 'Toponymes orientaux dans les épitaphes grecques de Concordia', *Aquileia Nostra* 51, pp. 330-343.

Feissel, D., 1982a. 'Remarques de toponymie syrienne d'après des inscriptions grecques chrétiennes trouvées hors de Syrie', *Syria*, pp. 59 319-343.

Feissel, D., 1982b. 'Contributions à l'epigraphie grecque chrétienne de Rome', *Rivista di Archeologia Cristiana* 78, pp. 353-382.

Feissel, D., 1983. 'Notes d'épigraphie chrétienne', *BCH* 107, pp. 601-618.

Feissel, D., 1985. 'Magnus, Mégas et les curateurs des "maisons divines" de Justin II à Maurice', *Travaux et Mémoires* 9, pp. 465-476.

Feissel, D., 1986. 'Le préfet de Constantinople, les poids-étalons et l'estampillage de l'argenterie au VIe et au VIIe siècle', *Revue numismatique* 28, pp. 119-142.

Feissel, D., 1991. 'Noms de villages de Syrie du Nord. Élements grecs et sémitiques', in *Ho Hellenismos sten Anatole : praktika A' Diethnous Archaiologikou Synedriou, Delphoi 6-9 Noemvriou 1986*. Athens: Europaïko Politistiko Kentro Delphon, pp.287-302.

Feissel, D., 1992. 'Les privilèges de Baitokaikè: remarques sur le rescrit de Valèrien et le colofon du dossier', *Syria* 70, pp. 84-106.

Fentress, E. and Fentress, J., 2001. 'The Hole in the doughnut (review article to Horden-Purcell, The Corrupting Sea)', *Past and Present* 173, pp. 203-219.

Finley, M., 1965. 'Technical innovation and economic progress in the Ancient World', *The Economic History Review* 18, pp. 29-45.

Finley, M., 1975. *The Use and Abuse of History* London: Chatto & Windus.

Finley, M., 1979. *The Bücher-Meyer Controversy. An Original Anthology*. New York: The Arno Press.

Finley, M., 1980. *Ancient Slavery and Modern Ideology* London: Chatto & Windus.

Finley, M., 1985a. *The Ancient Economy* London: Hogarth.

Finley, M., 1985b. *Sir Moses Finley interviewed by Keith Hopkins: 18th October 1985*. Unpublished material.

Firatli, N. and Robert, L., 1964. *Les stèles funéraires de Byzance gréco-romaine* Paris: Maisonneuve.

Firro, K. M., 1992. *A History of the Druzes* (Handbuch der Orientalistik). Leiden: Brill.

Foss, C., 1997. 'Syria in transition, A. D. 550-750: an archaeological approach', *DOP* 51, pp.189-269.

Foss, C., 2007. 'Byzantine saints in early Islamic Syria', *Analecta Bollandiana* 125 93-119.

Fourdrin, J.-P., 1993. 'Note sur la localisation de Nikertai', *RÉByz* 51, pp. 177-183.

Frankel, R., 1999. *Wine and Oil Production in Antiquity in Israel and Other Mediterranean Countries* Sheffield: Sheffield Academic.

Frankel, R., 2009. 'Some wine presses in Western Galilee', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods*. Oxford: Archaeopress, pp.19-24.

Freyberger, K. S., 2000. 'The Roman Kanatha: results of the campaigns in 1997/1998', *BÉO* 52, pp. 143-156.

Freyberger, K. S., 2005. 'Qanawat/Kanatha: urbanism', in Meynersen, F. (ed.), *Places in Time. 25 Years of Archaeological Research in Syria 1980-2005*. Damascus: German Archaeological Institute.

Gaifman, M., 2008. 'The aniconic image of the Roman Near East', in Kaizer, T. (ed.), *The Variety of Local Religious Life in the Near East in the Hellenistic and Roman Periods*. Leiden: Brill, pp.37-72.

Garnier, N., 2003. *Analyse du contenu de pithoi nabatéens de Sia (Djebel Druze, Syrie du Sud) et de Khirbet edh-Dharih (Jordanie)*. Unpublished material.

Garnsey, P., 1988. *Famine and Food Supply in the Graeco-Roman World: Responses to Risk and Crisis* Cambridge: Cambridge University Press.

Garnsey, P., 1998. *Cities, Peasants and Food in Classical Antiquity : Essays in Social and Economic History* Cambridge: Cambridge University Press.

Garnsey, P., 1999. *Food and society in Classical Antiquity* Cambridge: Cambridge University Press.

Garnsey, P., Hopkins, K., and Whittaker, C. R. (eds.), 1983. *Trade in the ancient economy* London: The Hogarth Press.

Gatier, P.-L., 1994. 'Villages du Proche-Orient protobyzantin (4ème - 7ème siècles) - Étude régionale', in King, G.R.D. and Cameron, A. (eds.), *The Byzantine and early Islamic Near East. Vol.2 Land use and settlement patterns*. Princeton: Darwin Press, pp. 17-48.

Gatier, P.-L., 1997. 'Villages et sanctuaires en Antiochène autour de Qalaat Kalota', *Topoi* 7, pp. 751-775.

Gatier, P.-L., 2001. 'Installations de sanctuaires du Proche-Orient romain: pour en finir avec l'andron', *Topoi* 11, pp. 9-15.

Gatier, P.-L., 2004. 'Les villages byzantins de la Syrie du Nord : d'illusoires villes mortes', in Nordiguian, L. (ed.), *Le voyage archéologique en Syrie et au Liban de Michel Jullien et*

de Paul Soulerin en 1888 Père Soulerin. Beirut: Presses de l'Université de Beyrouth, pp.41-73.

Gawlikowski, M., 1998. 'Hawarti. Preliminary report', *Polish Archaeology in the Mediterranean* 10, pp. 197-204.

Gawlikowski, M., 1999. 'Hawarte. Excavations, 1999', *Polish Archaeology in the Mediterranean* 11, pp. 261-271.

Gawlikowski, M., 2000. 'Hawarte. Third interim report on the work in the mithraeum', *Polish Archaeology in the Mediterranean* 12, pp. 309-314.

Gawlikowski, M., 2001. 'Hawarte. Excavation and restoration work in 2001', *Polish Archaeology in the Mediterranean* 13, pp. 271-278.

Gawlikowski, M., 2007. 'The mithraeum at Hawarte and its paintings', *JRA* 20, pp. 337-361.

Genequand, D., 2001. 'Wadi al-Qantir (Jordanie): un example de mise en valeur des terres sous les Omeyyades', *SHAJ* 7, pp. 647-654.

Gentelle, P., 1985. 'Élements pour une histoire des paysages et du peuplement du Djebel Hauran septentrional, en Syrie du Sud', in Dentzer, J.-M (ed.), *Hauran I. Recherches archéologiques sur la Syrie du sud à l'époque hellénistique et romaine. Volume I.* Paris: Geuthner, pp.19-62.

Gernet, L., 1933. 'Comment caractériser l'économie de la Grèce antique?', *Annales d'histoire économique et sociale* 5, pp. 561-566.

Gerritsen, F., De Giorgi, A., Özbal, R., and Vorderstrasse, T., 2008. 'Settlement and landscape transformation in the Amuq Valley', *Anatolica* 34, pp. 241-314.

Geyer, B., 1999. *Aridité et sociétés au Proche-Orient. Une problématique géo-archéologique (Thèse d'habilitation à diriger des recherches)*. Unpublished material.

Giron, N., 1911. 'Notes épigraphiques', *Mélanges de la Faculté Orientale de l'Université Saint-Joseph* 5, pp. 71-75.

Goodchild, H., 2007. *Modelling Roman Agricultural Production in the Middle Tiber Valley, Central Italy*. PhD thesis. University of Birmingham.

Goor, A., 1966. 'The history of the grape vine in the Holy Land', *Economic Botany* 20, pp. 46-64.

Grainger, J. D., 1995. "Village government in Roman Syria and Arabia', *Levant* 37, pp. 179-195.

Grantham, B. J., 2000. 'Qasrin and the Druze: a cuisine-based model of bone distributions on archaeological sites', *NEA* 63, pp. 9-19.

Greene, K., 2000. 'Technological innovation and economic progress in the ancient world: M.I. Finley reconsidered', *Economic History Review* 53, pp. 29-59.

Gregg, R. C. and Urman, D., 1996. *Jews, Pagans and Christians in the Golan Heights: Greek and Other Inscriptions of the Roman and Byzantine Eras* Atlanta, GA: Scholars Press.

Griesheimer, M., 1997. 'Cimetières et tombeaux des villages de la Syrie du Nord', *Syria* 74, pp. 165-211.

Griesheimer, M., 1999. 'Le sanctuaire de Schnaan (Gebel Zawiye, Syrie du Nord)', *Topoi* 9.2, pp. 689-717.

Grushevoi, A. G., 1985. 'The tribe 'Ubaishat in Safaitic Nabataean and Greek inscriptions', *Berytus* 33, pp. 51-54.

Gudovich, S., 2009. 'Wine presses at Mulabbis (Petah Tiqwa)', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods*. Oxford: Archaeopress, pp.203-212.

Hallebeek, J., 2005. 'Church asylum in Late Antiquity: concession by the Emperor or competence of the Church?', in Nève, P. L. and Coppens, E. C. (eds.), *Secundum ius : opstellen aangeboden aan prof. mr. P.L. Nève*. Nijmegen: Gerard Noodt Instituut, pp.163-182.

Harmand, L., 1955. *Libanius. Discours sur les patronages. Texte traduit, annoté et commenté* Paris: Presses Universitaires de France.

Harper, K., 2011. *Slavery in the Late Roman World AD 275-425* Cambrdige: Cambridge University Press.

Harris, W. V. (ed.), 2005. *Rethinking the Mediterranean* Oxford: Oxford University Press.

Hartal, M., 1987. 'Khirbet Zemel 1985, 1986', *IEJ* 37, pp. 270-272.

Hartal, M., 1989. *Northern Golan Heights: the Archaeological Survey as a Source of Regional History. Hebrew Text with English Summary* Qazrin: Israel Department of Antiquities and Museums.

Hartal, M., 1991. 'Bab el-Hawa', *ESI* 10, pp. 63-66.

Hartal, M., 2006. 'The Hauran style architecture', in Urman, D. (ed.), *Rafid on the Golan: a Profile of a Late Roman and Byzantine Village*. Oxford: Archaeopress, pp.5-12.

Hasebroek, J., 1928. *Staat und Handel im alten Griechenland: Untersuchungen zur antiken Wirtschaftsgeschichte* Tübingen: J.C.B. Mohr.

Hayes, J. W., 1972. *Late Roman Pottery* London: British School at Rome.

Hayes, J. W., 1980. *A Supplement to Late Roman Pottery* London: British School at Rome.

Henrich, P., 2002. 'Studien zür römischen Keramik aus Qanawat im Hauran. Untersuchungen am Beispiel eines Fundkomplexes aus Qanawat/Südsyrien', *Damaszener Mitteilungen* 13, pp. 245-315.

Henrich, P., 2003. 'Ein datierter Fundkomplex mit römischer Keramik aus Qanawat/Syrien', in Freyberger, K. S., Henning, A., and Hesberg, H. (eds.), *Kulturkonflikte im Vorderen Orient an der Wende vom Hellenismus zur römischen Kaiserzeit*. Rahden: Verlag Marie Leidorf, pp.65-73.

Hershlag, Z. Y., 1969. 'Theory of stages of economic growth in historical perspective', *Kyklos* 22, pp. 661-690.

Hildebrand, B., 1864. 'Naturalwirtschaft, Geldwirtschaft und Kreditwirtschaft', *Jahrbücher für Nationalökonomie und Statistik* 2, pp. 1-24.

Hirschfeld, Y., 1995. *The Palestinian Dwelling in the Roman-Byzantine Period* Jerusalem: Franciscan Printing Press.

Hirschfeld, Y., 1997. 'Farms and villages in Byzantine Palestine', *DOP* 51, pp. 33-72.

Hobson, D., 1985. 'House and household in Roman Egypt', *YCS* 28, pp. 211-229.

Hohlwein, N., 1949. 'Evhéméria du Fayoum', *JJP* 3, pp. 63-99.

Honigmann, E. and Maricq, A., 1953. 'Recherches sur les Res Gestae Divi Saporis', *Mémoires de l'Académie Royale de Belgique (Lettres)* 47 4, pp. 1-204.

Honigmann, E., 1923. 'Historische Topographie von Nordsyrien im Altertum', *ZDPV* 46, pp. 149-193.

Honigmann, E., 1924. 'Historische Topographie von Nordsyrien im Altertum (Schluß)', *ZDPV* 47, pp. 1-64.

Hopkins, K., 1980. 'Taxes and trade in the Roman Empire (200 B.C.–A.D. 400)', *JRS*, pp. 101-125.

Hopkins, K., 1983. 'Introduction ', in Garnsey, P., Hopkins, K. , and Whittaker, C. R. (eds.), *Trade in the ancient economy*. London: The Hogarth Press, pp.x-xxv.

Hopkins, K., 2002. 'Rome, taxes, rents and trade', in Scheidel, W. and von Reden, S. (eds.), *The Ancient Economy*. Edinburgh: Edinburgh University Press, pp.190-230.

Horden, P. and Purcell, N., 2000. *The Corrupting Sea. A Study of Mediterranean History* Oxford: Blackwell.

Horden, P. and Purcell, N., 2005. 'Four years of corruption: a response to critics', in Harris, W. V. (ed.), *Rethinking the Mediterranean*. Oxford: Oxford University Press, pp. 348-375.

Horwitz, L. K., 2000. 'Animal remains from Tel Nov, Golan Heights', *Atiqot* 39, pp. 121-134.

Huguet, F., 1985. 'Aperçu géomorphologique sur les paysages volcaniques du Hauran (Syrie méridionale)', in Dentzer, J.-M (ed.), *Hauran I. Recherches archéologiques sur la Syrie du sud à l'époque hellénistique et romaine. Volume I*. Paris: Geuthner, pp.5-17.

Hull, D., 2006. *The Archaeology of Monasticism Landscape, Politics and Social Organisation in Late Antique Syria.* 2 vols. PhD thesis. University of York.

Hull, D., 2008. 'A spatial and morphological analysis of monastic sites in the northern Limestone Massif, Syria', *Levant* 40, pp. 89-113.

Irvine Steinsapir, A., 2005. *Rural Sanctuaries in Roman Syria* (BAR International Series 1431). Oxford: John & Erica Hedges.

Jones, A. H. M., 1964. *The Later Roman Empire, 284-602 : a Social, Economic and Administrative Survey.* 3 vols. Oxford: Blackwell.

Jullien, M., 1892. 'Voyage dans la Syrie septentrionale au ruines chrétiennes du IVe, Ve et VIe siècles', *Les Missions Catholiques*, pp. 382-4 395-7 419-21 432-4 439-42 457-60 468-70 482-4 492-3 505-6 515-7 537-40 562-5 577 588-9 596-7 610-2 621-3.

Kaizer, T., 2008. 'Introduction', in Kaizer, T. (ed.), *The Variety of Local Religious Life in the Near East in the Hellenistic and Roman Periods*. Leiden: Brill, pp.1-36.

Kalos, M., 1999. 'Un sanctuaire d'époque hellenistique en Syrie du Sud: Massakeb', *Topoi* 9 2, pp. 777-794.

Kassab Tezgor, D., 2010. *Les fouilles et le matériel de l'atelier amphorique de Demirci près de Sinope* (Varia Anatolica XXII). Istanbul-Paris: Institut Francais d'Etudes Anatoliennes Georges Dumézil Istanbul.

Kehoe, D., 2007. 'The early Roman empire: Production', in Scheidel, W., Morris, I., and Saller, R. (ed.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: Cambridge University Press, pp.543-569.

Kelly, J. N. D., 1998. *Jerome : His Life, Writings, and Controversies* London: Duckworth.

Kennedy, H., 2010. 'Syrian élites from Byzantium to Islam: survival or extinction?', in Haldon, J. (ed.), *Money, Power and Politics in Early Islamic Syria: A Review of Current Debates*. Burlington: Ashgate, pp. 181-200.

Kennedy, H., 2011. 'Introduction ', in Borrut, A., Debié, M. , Papaconstantinou, A., Pieri, D., and Sodini, J.-P. (eds.), *Le Proche-Orient de Justinien aux Abbassides. Peuplement et dynamiques spatiales*. Turnhout: Brepols, pp.xi-xv.

Khalil, L. A. and al-Nammari, F. M., 2000. 'Two large wine presses at Khirbet Yajuz, Jordan', *BASOR* 318, pp. 41-57.

Khoury, W., 1987. *Deir Seta: prospection et analyse d'une ville morte inedite en Syrie.* 2 vols. Damascus: Dar Tlass.

Killebrew, A., Grantham, B. J., and Fine, S., 2003. 'A "Talmudic" house at Qasrin: on the use of domestic space and daily life during the Byzantine period', *NEA* 66, pp. 59-72.

Kingsley, S., 1999. *Specialized Production and Long-Distance Trade in Byzantine Palestine.* 2 vols. DPhil thesis. University of Oxford.

Knapp, A. B. (ed.), 1992. *Archaeology, Annales and Ethnohistory* Cambridge: Cambridge University Press.

Kreuz, P.-A., 2003. 'Aspekte der Entstehung und Ausprägung der religiösen Topographie einer ländlichen Region Syriens - Heiligtümer im nordsyrischen Kalksteinmassiv', in Freyberger, K. S., Henning, A., and Hesberg, H. (eds.), *Kulturkonflikte im Vorderen Orient an der Wende vom Hellenismus zur römischen Kaiserzeit*. pp. 169-179.

Kropp, A., 2010. 'Limits of Hellenisation: Pre-Roman basalt temples in the Hauran', *Bollettino di Archeologia Online* 1, pp. 1-18.

Kuhoff, W., 2001. *Diokletian und die Epoche der Tetrarchie : das römische Reich zwischen Krisenbewältigung und Neuaufbau (284-313 n. Chr.)* Frankfurt: P.Lang.

Laslett, P., 1972. 'Introduction: the history of the family', in Laslett, P. and Wall, R. (eds.), *Household and Family in Past Time : Comparative Studies in the Size and Structure of the Domestic Group over the Last Three Centuries in England, France, Serbia, Japan and Colonial North America, with Further Materials from Western Europe*. Cambridge: Cambridge University Press, pp.1-89.

Last, H., 1926. 'The Social and economic history of the Roman Empire by M.I. Rostovtzeff', *JRS* 16, pp. 120-128.

Latron, A., 1936. *La vie rurale en Syrie et au Liban* Damascus: IFD.

Le Roy Ladurie, E., 1974. *The Peasants of Languedoc* Urbana, IL: University of Illinois Press.

Le Strange, G., 1890. *Palestine Under the Moslems. A Description of Syria and the Holy Land from AD 650 to 1500* London: Alexander P. Watt.

Leblanc, J. and Vallat, J. P., 1997. 'L'organisation de l'espace antique dans la zone de Suweida et de Qanawat (Syrie du Sud)', in Burnouf, J. , Bravard, J-P., and Chouquer, G. (ed.), *La dynamique des paysages protohistoriques, antiques, medievaux et modernes*. Antipolis: APDCA, pp. 35-68.

Lettich, G., 1983. *Le iscrizioni sepolcrali tardoantiche di Concordia* Trieste: Centro studi storico-religiosi Friuli-Venezia Giulia.

Leuilliot, P., 1967. 'Défence et illustration de l'histoire locale', *Annales ESC* 22.1, pp. 154-177.

Lewis, N. N., Sartre-Fauriat, A., and Sartre, M., 1996. 'William John Bankes. Traveaux en Syrie d'un voyageur oublié', *Syria* 73, pp. 57-100.

Lewuillon-Blume, M., 1979. 'Problèmes de la terre au IVe siècle après J.C.' in Bingen, J. and Nachtergael, G. (ed.), *Actes du XVe Congrès international de papyrologie, Bruxelles--Louvain, 29 août-3 septembre 1977*. Volume 4. Bruxelles: Fondation égyptologique Reine Élisabeth, pp. 177-185.

Liebeschuetz, J. H. W. G., 1972. *Antioch: City and Imperial Administration in the Later Roman Empire* Oxford: Clarendon Press.

Lo Cascio, E., 1971-1972. 'Patrimonium, ratio privata, res privata', *Annali dell'Istituto Italiano per gli Studi Storici* 3, pp. 55-121.

Lo Cascio, E., 2000. 'Patrimonium, ratio privata, res privata', in Lo Cascio, E. (ed.), *Il princeps e il suo impero. Studi di storia amministrativa e finanziaria romana*. Bari: Edipuglia, pp.98-149.

Macdonald, M. C. A., 1993. 'Nomads and the Hawran in the Late Hellenistic and Roman periods: a Reassessment of the Evidence', *Syria* 70, pp. 303-413.

Macdonald, M. C. A., 2003. 'A fragmentary Safaitic inscription from Si' 8', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, p. 277.

Macdonald, M. C. A., 2003. 'Languages, scripts, and the uses of writing among the Nabataeans', in Markoe, G. (ed.), *Petra Rediscovered: Lost City of the Nabataeans*. London: Thames & Hudson, pp.36-56.

Macdonald, M. C. A., 2003. 'References to Si' in the Safaitic inscriptions', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.278-279.

Macdonald, M. C. A., 2008. 'Ancient North Arabian', in Woodard, R. D. (ed.), *The Ancient Languages of Syria-Palestine and Arabia*. Cambridge: Cambridge University Press, pp.179-224.

Magness, J., 2003. *The Archaeology of the Early Islamic Settlement in Palestine* Winona Lake, IN: Eisenbrauns.

Maiuro, M., 2007. 'Archivi, amministrazione del patrimonio e proprietà imperiali nel Liber Pontificalis : la redazione del libellus imperiale copiato nella Vita Sylvestri', in Pupillo, D. (ed.), *Le proprietà imperiali nell'Italia romana : economia, produzione,*

amministrazione : atti del convegno, Ferrara-Voghiera, 3-4 giugno 2005. Firenze: Le Lettere, pp.235-258.

Majcherek, G., 2003. 'Hawarte. Excavation and Restoration work in 2003', *Polish Archaeology in the Mediterranean* 15, pp. 325-334.

Manfredini, A. D., 2002. 'Debitori pubblici e privati "in ecclesias confugientes" da Teodosio a Giustiniano', *Rivista di Diritto Romano* 2, pp. 305-326.

Mannoni, T., 1985. 'Come ho visto funzionare un torchio a leva e vite', in Carandini, A. (ed.), *Settefinestre. Una villa schiavistica nell'Etruria romana. Volume 2: La villa nelle sue parti*. Modena: Panini, pp.251-252.

Ma'oz, Z. U. and Killebrew, A., 1988. 'Ancient Qasrin - Synagogue and village', *BiblArch* 51, pp. 5-19.

Ma'oz, Z. U., 1993a. 'Giv'at Orha ', in Stern, E. (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land. Vol.2: Emmaus-Jerusalem*. Jerusalem: Carta, The Israel Map & Publishing Company, pp.521-523.

Ma'oz, Z. U., 1993b. 'Golan: Hellenistic period to the Middle Ages', in Stern, E. (ed.), *The New Encyclopedia of Archaeological Excavations in the Holy Land. Vol.2: Emmaus-Jerusalem*. Jerusalem: Carta, The Israel Map & Publishing Company, pp.534-546.

Ma'oz, Z. U., 2006. 'The Civil reform of Diocletian in the southern Levant', *SCI* 25, pp. 105-119.

Martroye, F., 1928. 'Les patronages d'agriculteurs et de *vici* au IVe et au Ve siècles', *Revue historique de droit* 7, pp. 201-248.

Mattern, J., 1933. 'A travers les villes mortes de Haute Syrie, promenades archeologiques en 1928, 1929, 1931', *MUSJ* 17, pp. 1-176.

Mattingly, D. J., 1996. 'Olive presses in Roman Africa: technical evolution or stagnation?', in Khanoussi, M., Ruggeri, P., and Vismara, C. (eds.), *L'Africa romana XI.2. Atti dell'XI convegno di studio. Cartagine 15-18 dicembre 1994*. 577-595.

Mattingly, D., 1988. 'Megalithic madness and measurement: or how many olives could an olive press press?', *Oxford Journal of Archaeology* 7, pp. 177-195.

Mattingly, D., 1988. 'Oil for export: a comparative study of Roman olive oil production in Lybia, Spain and Tunisia', *JRA* 1, pp. 33-56.

Mattingly, D., 1988. 'The olive boom. Oil surpluses, wealth and power in Roman Tripolitania', *Lybian Studies* 19, pp. 21-41.

Maundrell, H., 1703. *A Journey from Aleppo to Jerusalem at Easter A.D. 1697* Oxford: The Theater.

Mazza, M., 1978. 'Marx sulla schiavitù antica', in Capogrossi Colognesi, L., Giardina, A., and Schiavone, A. (eds.), *Analisi marxista e società antiche*. Roma: Editori Riuniti, pp.107-145.

Mazza, M., 1985. 'Meyer vs Bücher: il dibattito sull'economia antica nella storiografia tedesca tra Otto e Novecento', *Società e Storia* 29, pp. 507-546.

Mazza, M., 2000. 'Was ist (die antike) Wirtschaftgeschichte? Teoria economica e storia antica prima di Bücher, Meyer e Rostovtzeff', *MedAnt* 3.2, pp. 499-547.

McLean Harper, G., 1928. 'Village administration in the Roman province of Syria', *YCS* 1, pp. 105-168.

Mee, C. and Forbes, H. (eds.), 1997. *A Rough and Rocky Place : the Landscape and Settlement History of the Methana Peninsula, Greece : Results of the Methana Survey Project Sponsored by the British School at Athens and the University of Liverpool* Liverpool: Liverpool University Press.

Meyer, E., 1905. 'L'evoluzione economica dell'antichità', in Pareto, V. (ed.), *Biblioteca di Storia Economica*. Milano: Società Editrice Libraria, pp.1-60.

Meyers, E., 2007. 'The problems of gendered space in Syro-Palestinian domestic architecture: the case of Roman-period Galilee', in Galor, K. and Waliszewski, T. (eds.), *From Antioch to Alexandria. Recent Studies in Domestic Architecture*. Warsaw: Institute of Archaeology, University of Warsaw, pp.107-123.

Mickwitz, G., 1937. 'Economic rationalism in Graeco-Roman agriculture', *The English Historical Review* 52, pp. 577-589.

Milik, J. T., 2003. 'Une bilingue araméo-grecque de 105/4 avant J.-C.', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (ed.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.269-274.

Millar, F., 1993. *The Roman Near East, 31 BC - AD 337* Cambridge, MA: Harvard University Press.

Millet, M. and Patterson, H., 1998. 'The Tiber Valley Project', *PBSR* 53, pp. 1-20.

Milson, D., 2003. 'The Syrian technites Markianos Kyris († 425 CE)', *ZDPV* 119, pp. 159-182.

Momigliano, A., 1981. 'Premesse per una discussione su Eduard Meyer', *Rivista Storica Italiana* 93 2, pp. 384-398.

Momigliano, A., 1982. 'Niebuhr and the agrarian problems of Rome', *History and Theory* 21 4, pp. 3-15.

Mordtmann, J. H., 1887. 'Zur Topographie des nördlichen Syriens aus griechischen Inschriften', *ZDMG* 41, pp. 301-307.

Moreland, J., 1992. 'Restoring the dialectic: settlement patterns and documents in medieval central Italy', in Knapp, A. B. (ed.), *Archaeology, Annales and Ethnohistory*. Cambridge: Cambridge University Press, pp.112-129.

Morrisson, C., 1972. 'Le tresor byzantin de Nikertai', *Revue belge de numismatique* 118, pp. 29-91.

Mundell Mango, M., 1986. *Silver from Early Byzantium : the Kaper Koraon and Related Treasures* Baltimore, MD: Trustees of the Walters Art Gallery.

Mundell Mango, M., 1988. 'The origins of the Syrian ecclesiastical silver treasures of the early Byzantine period', in Baratte, F. (ed.), *Argenterie romaine et byzantine : actes de la table ronde, Paris 11-13 octobre 1983*. Paris: De Boccard, pp.163-184.

Myers, E. A., 2010. *The Ituraeans and the Roman Near East. Reassessing the Sources* (Society for New Testament Studies. Monograph Series). Cambridge: Cambridge University Press.

Nafissi, M., 2005. *Ancient Athens & Modern Ideology : Value,Theory & Evidence in Historical Sciences. Max Weber, Karl Polanyi & Moses Finley* (Bulletin of the Institute of Classical Studies Supplement 80). London: University of London.

Nasrallah, J., 1970. 'Le couvent de Saint-Siméon l'Alepin', *La Parole de l'Orient* 1, pp. 327-356.

Niehr, H., 2003. *Ba'alšamem : Studien zu Herkunft, Geschichte und Rezeptionsgeschichte eines phönizischen Gottes* (Orientalia Lovaniensia Analecta). Leuven: Peeters.

Nöldeke, T., 1875. 'Zur Topographie und Geschichte des Damascenischen Gebietes und der Haurângegend', *ZDMG* 29, pp. 419-444.

Nordiguian, L., 2004. *Le voyage archéologique en Syrie et au Liban de Michel Jullien et Paul Soulerin en 1888.* Beirut: Presses de l'Université de Beyrouth.

Noy, D., 2000. *Foreigners at Rome. Citizens and Strangers.* Swansea & London: The Classical Press of Wales/Duckworth.

Oenbrink, W., 2006. 'Shahba/Philippopolis - die Transformation einersafaitisch-arabischen Siedlung in eine römische Colonia', in Johne, K.-P., Gerhardt, T., and Hartmann, U. (ed.), *Deleto paene imperio Romano.Transformationsprozesse des Römischen Reiches im 3. Jahrhundert und ihre Rezeption in der Neuzeit*. Stuttgart: Franz Steiner Verlag, pp.243-270.

Orssaud, D. and Sodini, J.-P., 2003. 'Le "brittle ware" dans le massif calcaire (Syrie du Nord)', in Bakirtzis, C. (ed.), *VIIe Congrès International sur la Céramique médiévale en Méditerranée, Thessaloniki, 11-16 Octobre 1999 : actes*. Athens: Caisse des Recettes Archéologiques, pp.491-504.

Orssaud, D., 1992. 'Le passage de la céramique byzantine a la céramique islamique. Quelques hypothèses a partir du mobilier trouvé a Déhès', in Canivet, P. and Rey-Coquais, J.-P. (ed.), *La Syrie de Byzance à l'Islam. Actes du colloque international Lyon- Maison de l'Orient Méditerranéen. Paris - Institut du Monde Arabe 11-15 Septembre 1990*. Damascus: Institut français de Damas, pp.219-228.

Orssaud, D., Barret, M., and Blanc, P.-M., 2003. 'La céramique de Si' en pâte A. Essai de formalisation des éléments descriptifs', in Dentzer-Feydy, J., Dentzer, J.-M., and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole*. Beirut: IFPO, pp.199-222.

Pack, R. A., 1935. *Studies in Libanius and Antiochene Society under Theodosius.* Menasha, WI: George Banta Publishing Company.

Palmer, A., 1990. *Monk and Mason on the Tigris Frontier. The Early History of Tur Abdin.* Cambridge: Cambridge University Press.

Pansiot, F. P. and Rebour, H., 1961. *Improvement in Olive Cultivation.* Rome: FAO.

Parrot, A., 1939. *Malédictions et violations des tombes.* Paris: Geuthner.

Patlagean, E., 1977. *Pauvreté économique et pauvreté sociale à Byzance, 4e-7e siècles* Paris: Mouton.

Patterson, H., 2004. *Bridging the Tiber. Approaches to Regional Archaeology in the Middle Tiber Valley* (Archaeological Monograph of the British School at Rome, 13). London: The British School at Rome.

Pearson, H. W., 1957. 'The secular debate on economic primitivism', in Polanyi, K., Arensberg, C. M., and Pearson, H. W. (ed.), *Trade and Market in the Early Empires. Economies in History and Theory*. Glencoe, IL: The Free Press, pp.3-11.

Peña, I., Castellana, P., and Fernandez, R., 1975. *Les stylites syriens* (Studium Biblicum Franciscanum. Collectio minor 16). Milano: Franciscan Printing Press.

Peña, I., Castellana, P., and Fernandez, R., 1980. *Les Cénobites Syriens* Milano: Franciscan Printing Press.

Peña, I., Castellana, P., and Fernandez, R., 1987. *Inventaire du Jébel Baricha : recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* (Studium Biblicum Franciscanum. Collectio minor n. 31). Milano: Franciscan Printing Press.

Peña, I., Castellana, P., and Fernandez, R., 1990. *Inventaire du Jebel el-A'la : recherches archéologiques dans la région des villes mortes de la Syrie du nord* (Studium Biblicum Franciscanum. Collectio minor n. 31). Milano: Franciscan Printing Press.

Peña, I., Castellana, P., and Fernandez, R., 1999. *Inventaire du Jébel Wastani : recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* (Studium Biblicum Franciscanum. Collectio minor n. 36). Milano: Franciscan Printing Press.

Peña, I., Castellana, P., and Fernandez, R., 2003. *Inventaire du Jébel Doueili : recherches archéologiques dans la région des Villes Mortes de la Syrie du Nord* (Studium Biblicum Franciscanum. Collectio minor n. 43). Milano: Franciscan Printing Press.

Peters, E., 2003. 'Quid nobis cum pelago? The New thalassology and the economic history of Europe', *Journal of Interdisciplinary History* 34, pp. 49-61.

Petit, P., 1955. *Libanius et la vie municipale à Antioche au IVe siècle après J.-C* Paris: Geuthner.

Piccirillo, M., 1992. *The Mosaics of Jordan* Amman: American Centre for Oriental Research.

Piccirillo, M., 1997. 'Umm al-Rasas Kastron Mef'a. Excavation campaign 1997. Church of St. Paul: northern and sourthern flanks', *Liber Annuus* 47, pp. 484-488.

Piccirillo, M., 1998. 'Umm al-Rasas, church of St Paul: southestern flank', *Liber Annuus* 48, pp. 542-546.

Pieri, D., 2005. 'Nouvelles productions d'amphores de Syrie du Nord aux epoques protobyzantine et omeyyade', in Baratte, F., Déroche, V., Jolivet-Lévy, C., and Pitarkis, B. (eds.), *Mélanges Jean-Pierre Sodini*. Paris: Association des Amis du Centre d'Histoire et Civilisation de Byzance, pp.583-596.

Pieri, D., 2005-a. *Le commerce du vin oriental à l'époque byzantine, Ve-VIIe siècles : le témoignage des amphores en Gaule* (Bibliothèque archéologique et historique 174). Beirut: IFPO.

Pieri, D., 2011. 'Saint-Simeon le Stylite: les bâtiments d'accueil et les boutiques à l'éntrée du sanctuaire', *CRAI* Nov-Dec 2009, pp. 1393-1420.

Pinkerton, J., 1808-1814. *A General Collection of the Best and Most Interesting Voyages and Travels in all Parts of the World* 17 vols. London: Longman, Hurst, Rees, and Orme.

Pococke, R., 1743-1745. *A Description of the East, and some other* countrie.s 2 vols. London: W.Bowyer.

Poidebard, A., 1934. *La trace de Rome dans le désert de Syrie : le limes de Trajan à la conquête arabe; recherches aériennes (1925-1932)* (Bibliothèque archéologique et historique. t. XVIII). Paris: Geuthner.

Polanyi, K., 1957. 'Aristotle Discovers the Economy', in Polanyi, K., Arensberg, C. M., and Pearson, H. W. (eds.), *Trade and Market in the Early Empires. Economies in History and Theory*. Glencoe, IL: The Free Press, pp.64-96.

Polanyi, K., 1957. 'Marketless Trading in Hammurabi's Time', in Polanyi, K., Arensberg, C. M., and Pearson, H. W. (eds.), *Trade and Market in the Early Empires. Economies in History and Theory*. Glencoe, IL: The Free Press, pp.12-26.

Pollard, N., 1995. 'G. Tate, Les campagnes de la Syrie du Nord du IIe au VIIe siècle', *JRS* 85, pp. 306-307.

Ponikarov, V. and Mikhailov, I. *Geological Map of Syria*. 1964. Moscow, Department of Geological and Mineral Research.

Potter, T. W., 1979. *The Changing Landscape of South Etruria* London: Elek.

Pruneti, P., 1981. *I centri abitati dell'Ossirinchite. Repertorio toponomastico.* Firenze: Gonnelli.

Raphael, O. and Lernau, O., 1996. 'Faunal remains from Bab-el-Hawa: an Iron Age-Byzantine site in the Golan Heights', *Archaeozoologia* 8, pp. 105-118.

Rathbone, D., 1991. *Economic Rationalism and Rural Society in Third-Century A.D. Egypt: the Heroninos Archive and the Appianus Estate* Cambridge: Cambridge University Press.

Renel, F., 2012. 'La céramique antique de Syrie du sud de la période hellénistique à la période byzantine (IIe s.av.J.-C.-VIe s.apr.J.-C.). Étude de cas: le Jebel et le Leja', in al-Maqdissi, M., Braemer, F., and Dentzer, J.-M (eds.), *Hauran V. La Syrie du Sud du Néolithique à l'Antiquité tardive*. Beirut: IFPO, pp.515-544.

Rey-Coquais, J.-P., 1979. 'Onomastique et histoire de la Syrie gréco-romaine', in Pippidi, D. M. (ed.), *Actes du VIIe Congrès international d'épigraphie grecque et latine, Constantza, 9-15 septembre 1977*. Paris: Les Belles Lettres, pp.171-183.

Reynolds, P., 2005. 'Levantine amphorae from Cilicia to Gaza: a typology and analysis of regional production trends from the 1st to 7th centuries', in Gurt i Esparraguera, J. M., Buxeda i Garrigos, J., and Cau Ontiveros, M. A. (eds.), *LRCW 1: Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean ; Archaeology and Archaeometry*. Oxford: Archaeopress, pp.563-611.

Rigsby, K. J., 1980. 'Seleucid notes IV: Baetocaece', *TAPA* 110, pp. 248-254.

Rivoal, M., 2010. *La vie rurale en Syrie centrale à la période protobyzantine (IVe-VIIe siècle).* Doctorat de Langues, histoire et civilisations des mondes anciens. Université Lumière-Lyon 2.

Rizakis, A. D., 1996. 'Anthroponymie et société. Les noms romains dans les provinces hellénophones de l'Empire', in Rizakis, A. D. (ed.), *Roman onomastics in the Greek East. Social and political aspects. Proceedings of the International Colloquium on Roman Onomastics 7-9 September 1993*. Athens: Research Centre for Greek and Roman Antiquity, pp.11-29.

Rohmer, J., 2010. 'L'occupation humaine du plateau du Leja, de l'âge du Fer à l'annexion romaine: perspectives de recherche', in al-Maqdissi, M., Braemer, F., and Dentzer, J.-M (eds.), *Hauran V. La Syrie du Sud du Néolithique à l'Antiquité tardive*. Beirut: IFPO , pp.119-138.

Rossi, A. M., 1975. 'Ricerche sulle multe sepolcrali romane', *Rivista Storica dell'Antichità* 5 111-159.

Rostovtzeff, M. I. (ed.), 1934. *The Excavations at Dura-Europos : Preliminary Report of the Fifth Season of Work October 1931-March 1932*. New Haven, CT: Yale University Press.

Rostovtzeff, M. I., 1943. 'The Res Gestae Divi Saporis and Dura', *Berytus* 8, pp. 17-60.

Rostovtzeff, M. I., 1957. *The Social and Economic History of the Roman Empire* Oxford: Oxford University Press.

Rostovtzeff, M. I., 1987. 'Capitalisme et économie nationale dans l'antiquité. Translated from Russian by J.Andreau', *Pallas* 33, pp. 19-40.

Rostovtzeff, M. I., 1994. *Per la storia del colonato romano. Edizione italiana di Studien zur Geschichte des römischen Kolonates a cura di A.Marcone* Brescia: Paideia Editrice.

Rousset, M. O., 1998a. 'Remarques sur la céramique de Qal'at Qalota': http://halshs.archives-ouvertes.fr/docs/00/35/99/17/PDF/Qalota.pdf (Visited on 10/12/2012).

Rousset, M. O., 1998b. 'Remarques sur la céramique de Srir': http://halshs.archives-ouvertes.fr/docs/00/35/99/15/PDF/Srir.pdf (Visited on 10/12/2012).

Rousset, M. O., 1999. 'Le matériel céramique de Burdj Baqirha': http://halshs.archives-ouvertes.fr/docs/00/35/99/26/PDF/BurjBaqirah.pdf (Visited on 10/12/2012).

Ruggieri, V., 1992. 'Il "Grande Monastero" di Tell 'Ada. Rapporto preliminare 1990-91', *Orientalia Christiana Periodica* 58, pp. 157-184.

Russell, A., 1794. *The Natural History of Aleppo.* 2 vols. London: G.G. & J. Robinson.

Safrai, Z., 1994. *The Economy of Roman Palestine* London & New York: Routledge.

Saller, R., 2005. 'Framing the debate over growth in the ancient economy', in Manning, J. G. and Morris, I. (eds.), *The Ancient Economy: Evidence and Models*. Stanford, CA : Stanford University Press, pp.223-238.

Sarris, P., 2006. *Economy and Society in the Age of Justinian* Cambridge: Cambridge University Press.

Sartre, M., 1981. 'Le terroire de Canatha', *Syria* 58, pp. 343-357.

Sartre, M., 1982-a. *Trois études sur l'Arabie romaine et byzantine* (Collection Latomus 178). Bruxelles: Revue d'études latines.

Sartre, M., 1985. *Bostra. Des origines à l'Islam* Paris: Geuthner

Sartre, M., 1987. 'Villes et villages du Hauran (Syrie) du Ier au IVe siècle', in Frézouls, E. (ed.), *Sociétés urbaines, sociétés rurales dans l'Asie Mineure et la Syrie hellénistiques et romaines. Actes du colloque organisé à Strasbourg (novembre 1985)*. Strasbourg: AECR, pp. 239-257.

Sartre, M., 1992. 'Les cités de Décapole septentrionale: Canatha, Raphana, Dion et Ahadra', *ARAM* 4.1/2, pp. 139-156.

Sartre, M., 1992. 'Transhumance, économie et société de montagne en Syrie du Sud', in Fabre, G. (ed.), *La montagne dans l'Antiquité. Actes du colloque de la Sophau. Pau (Mai 1990)*. 39-54.

Sartre, M., 1992-c. 'Nouvelles bornes cadastrales du Hauran sous la Tétrarchie', *Ktema* 18, pp. 111-131.

Sartre, M., 1993. 'Communautés villageoises et structures sociales d'après l'épigraphie de la Syrie du Sud', in Calbi, A., Donati, A., and Poma, G. (eds.), *L'epigrafia del villaggio*. Faenza: Fratelli Lega Editori, pp.117-135.

Sartre, M., 2001. *D'Alexandre à Zénobie: histoire du Levant antique, IVe siècle avant J.-C.-IIIe siècle après J.-C* Paris: Fayard.

Sartre, M., 2007. 'The ambiguous name: the limitations of cultural identity in Graeco-Roman Syrian onomastics', in Matthews, E. (ed.), *Old and New Worlds in Greek Onomastics*. Oxford: The British Academy, pp.199-232.

Sartre-Fauriat, A., 2001. *Des tombeaux et des morts: monuments funéraires, societé et culture en Syrie du Sud du Ier s. av. J.-C. au VIIe s. apr. J-C.* (Bibliothèque archéologique et historique, t.158). 2 vols. Beirut: IFPO.

Sauvaget, J., 1934. 'Le plan de Laodicée-sur-Mer', *BÉO* 4, pp. 81-114.

Schachner, L., 2005. '"I greet you and thy brethren. Here are fifteen šentaese of wine": wine-production in the early monasteries of Egypt and the Levant', *ARAM* 17, pp. 157-184.

Schachner, L., 2006. *Economic Production in the Monasteries of Egypt and Oriens.* 3 vols. DPhil thesis. University of Oxford.

Schachner, L., 2010. 'The archaeology of the stylite', in Gwynn, D. M. and Bangert, S. (eds.), *Religious Diversity in Late Antiquity* (Late Antique Archaeology 6). Leiden: Brill, pp. 329-97.

Scheidel, W. and von Reden, S., 2002. 'Introduction', in Scheidel, W. and von Reden, S. (eds.), *The Ancient Economy*. Edinburgh: Edinburgh University Press, pp.1-8.

Schmoller, G., 1884. 'Das Merkantilsystem in seiner historischen Bedeutung: städtische, territoriale und staatliche Wirtschaftspolitik', *Jahrbuch für Gesetzgebung, Verwaltung und Volkswirtschaft* 8, pp. 15-61.

Schneider, G., Vokaer, A., Bartl, K., and Daszkiewicz, M., 2007. 'Some new results of archaeometric analysis of Brittle Wares', in Bonifay, M. and Tréglia, J.-C. (ed.), *LRCW 2. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry*. Oxford: Archaeopress, pp.715-729.

Schneider, H., 2007. 'Technology ', in Scheidel, W., Morris, I. , and Saller, R. (eds.), *The Cambridge Economic History of the Greco-Roman World*. Cambridge: Cambridge University Press, pp. 144-174.

Scialoja, V., 1933. *Teoria della proprietà nel diritto romano* Roma: Anonima Romana Editoriale.

Seston, W., 1946. *Dioclétien et la tétrarchie* Paris: De Boccard.

Shahid, I., 1989. *Byzantium and the Arabs in the Fifth Century* Washington, DC: Dumbarton Oaks Research Library and Collection.

Shahid, I., 2002. *Byzantium and the Arabs in the Sixth Century. Volume II. Part 1: Toponymy, Monuments, Historical Geography and Frontier Studies* Washington, DC: Dumbarton Oaks Research Library and Collection.

Shahid, I., 2009. *Byzantium and the Arabs in the Sixth Century. Vol. 2. Part 2, Economic, Social and Cultural History* Washington, DC: Dumbarton Oaks Research Library and Collection.

Shaw, B., 2001. 'Challenging Bruadel: a new vision of the Mediterranean', *JRA* 14, pp. 419-453.

Sodini, J.-P. and Morrisson, C., 2011. 'Niveaux d'occupation et de frequentation d'un site de pélérinage: Saint-Symeon des byzantines au califes', in Borrut, A., Debié, M., Papaconstantinou, A., Pieri, D., and Sodini, J.-P. (eds.), *Le Proche-Orient de Justinien aux Abbassides*. Turhnout: Brepols, pp.123-138.

Sodini, J.-P. and Villeneuve, E. , 1992. 'Le passage de la céramique byzantine à la céramique omeyyade en Syrie du nord, en Palestine et en Transjordanie', in Canivet, P. and Rey-Coquais, J.-P. (eds.), *La Syrie de Byzance à l'Islam, VIIe-VIIIe siècles : actes du Colloque international Lyon - Maison de l'Orient méditerranéen, Paris - Institut du monde arabe, 11-15 Septembre 1990*. Damascus: Institut français de Damas, pp.195-218.

Sodini, J.-P., Blanc, P.-M., and Pieri, D., 2010. 'Nouvelles eulogies de Qal'at Sem'an', *Travaux et Mémoires* 16, pp. 793-812.

Sodini, J.-P., Tate, G., Bavant, B., Bavant, S., Biscop, J.-L., Orssaud, D., Morrisson, C., and Poplin, F., 1980. 'Déhès (Syrie du nord) Campagnes I-III (1976-1978) recherches sur l'habitat rural', *Syria* 57, pp. 1-304.

Solin, H., 1983. 'Juden und Syrer im westlichen Teil der römischen Welt. Eine ethnisch-demographische Studie mit besonderer Berücksichtigung der sprachlichen Zustände', in Temporini, H. and Haase, W. (eds.), *Aufstieg und Niedergang der römischen Welt II. Prinzipat. Band 29.2*. Berlin & New York: De Gruyter, pp.587-789.

Sourdel, D., 1952. *Les cultes du Hauran à l'époque romaine* Paris: Geuthner.

Sourdel, D., 1956. 'Georges TCHALENKO, Villages antiques de la Syrie du nord. Le massif du Bélus à l'époque romaine', *Arabica* 3, pp. 219-220.

Sourdel-Thomine, J., 1954. 'Le peuplement de la région des "villes mortes" (Syrie du Nord) à l'époque ayyubide', *Arabica* 1, pp. 187-200.

Starcky, J., 1966. 'Pétra et la Nabatène' in *Dictionnaire de la Bible: supplément VII*. Paris: Letouzey & Ané, cols. 886-1017.

Syon, D. and Hartal, M., 2003. 'A new Tetrarchic boundary-stone from the Northern Hula Valley', *SCI* 22, pp. 233-239.

Tate, G., 1988. 'Archéologie sérielle et histoire rurale. Le cas du massif calcaire dans la Syrie du Nord', in Ghislaine, N. (ed.), *Structures de l'habitat et occupation du sol dans les pays méditerranéens. Les méthodes et l'apport de l'archéologie extensive. Actes de la rencontre organisée par l'École française de Rome, Paris, 12-15 novembre 1984*. Rome-Madrid: Ecole Française de Rome-Casa de Velázquez, pp.249-256.

Tate, G., 1992. *Les campagnes de la Syrie du Nord du IIe au VIIe siècle : un exemple d'expansion démographique et économique à la fin de l'antiquité.* Paris: Geuthner.

Tate, G., 1994. 'A propos des cadastres romains du nord de la Syrie', in Doukellis, P. N. and Mendoni, L. (eds.), *Structures rurales et sociétés antiques*. Paris: Les Belles Lettres, pp.443-447.

Tate, G., 1997. 'The Syrian countryside during the Roman era', in Alcock, S. (ed.), *The Early Roman Empire in the East*. Oxford: Oxbow, pp.55-71.

Tate, G. and Naccache, A., 1995. 'Le village antique de Deir Sunbul', *MUSJ* 52, pp. 371-490.

Tate, G. and Sodini, J.-P., 1984. 'Maisons d'époque romaine et byzantine (IIe-VIe siècles) du massif calcaire de Syrie du nord. Étude typologique', in Balty, J. (ed.), *Actes du colloque d'Apamée de Syrie. Bilan des recherches archéologiques 1973-79*. Bruxelles: De Boccard, pp. 377-430.

Tchalenko, G., 1953-1958. *Villages antiques de la Syrie du Nord: le massif du Bélus à l'époque romaine* (Bibliothèque archéologique et historique, t.50). 3 vols. Paris: Geuthner.

Tchalenko, G., 1971. 'Traits originaux du peuplement de la Haute-Syrie du 1er au 7e siècle, tels que les révèle l'architecture', *AArchSyr* 21, pp. 289-292.

Tchernia, A., 1986. *Le vin de l'Italie romaine: essai d'histoire économique d'après les amphores* Paris: École française de Rome.

Teixidor, J., 1979. *The pantheon of Palmyra* (Études préliminaires aux religions orientales dans l'Empire romain, t. 79). Leiden: Brill.

Temin, P., 2001. 'A market economy in the early Roman Empire', *JRS* 91, pp. 169-181.

Tomkins, H. G., 1893. 'On the topography of Northern Syria with special reference to the Karnak lists of Thothmes III', *Transactions of the Society of Biblical Archaeology* 9, pp. 227-254.

Traboulsi, M., 1993. 'Le régime pluvio-thermique des massifs calcaires du nord de la Syrie: variabilité spatiale et temporelle', *Hannon* 22, pp. 71-86.

Trombley, F., 1987. 'Korykos in Cilicia Trachis (sic): the economy of a small coastal city in Late Antiquity (saec. V-VI)-a précis', *The Ancient History Bulletin* 1, pp. 16-23.

Trombley, F., 1993-1994. *Hellenic Religion and Christianization c.370-529* (Religions in the Graeco-Roman world 115). 2 vols. Leiden: Brill.

Trombley, F., 2003. 'Christian demography in the *territorium* of Antioch (4th-5th c.): observations on the epigraphy', in Sandwell, I. and Huskinson, J. (ed.), *Culture and Society in Later Roman Antioch : Papers from a Colloquium, London, 15th December 2001*. Oxford: Oxbow, pp.59-85.

Trombley, F., 2004. 'Demographic and cultural transition in the territorium of Antioch, 6th-8th c.', *Topoi Suppl.* 5, pp. 341-362.

Tsuneki, A., 2003. 'Sounding excavations at Tell el-Kerkh 2: site, stratigraphy and structures', in Iwasaki, T. and Tsuneki, A. (ed.), *Archaeology of the Rouj Basin. A Regional Study of the Transition from Village to City in Northwest Syria*. Tsukaba: University of Tsukaba, pp.43-56.

Urman, D., 1985. *The Golan. A Profile of a Region During the Roman and Byzantine Periods* (BAR International Series 269). Oxford: Archaeopress.

Vallat, J. P. and Leblanc, J., 2008. 'Habitat rural et parcellaires du Djebel al-'Arab (Sî'/Qulib)', in Clauss-Balty, J. (ed.), *Hauran III.L'habitat dans les campagnes de Syrie du Sud aux époques classique et médiévale*. Beirut : IFPO, pp.19-39.

Vannesse, M., 2011. 'De l'Oronte au Pô: étude d'une communauté de Syriens d'Apamène en Italie du Nord', in Deroux, C. (ed.), *Corolla epigraphica. Hommages au professeur Yves Burnard*. Bruxelles: Éditions Latomus, pp.700-718.

Vera, D., 1999. 'Massa fundorum. Forme della grande proprietà e poteri della città in Italia fra Costantino e Gregorio Magno', *Mélanges de l'école française de Rome (MEFRA)* 111, pp. 991-1025.

Vera, D., 2012. 'Osservazioni economiche sulla "Vita Sylvestri" del "Liber Pontificalis"', in Chausson, F. and Wolff, E. (eds.), *Consuetudinis amor. Fragments d'Histoire romaine (IIe-VIe siècles) offerts à J.-P. Callu*. Roma: L'Erma di Bretschneider, pp.419-430.

Villeneuve, F., 1985. 'L'économie rurale et la vie des campagnes dans le Hauran antique (Ier siècle av.J.-C.-VIIe siècle ap. J.-C.)', in Dentzer, J.-M (ed.), *Hauran I. Recherches archéologiques sur la Syrie du sud à l'époque hellénistique et romaine. Volume I.* Paris: Geuthner, pp.63-136.

Villeneuve, F., 1989. 'Citadins, villageois, nomades: le cas de la Provincia Arabia (II' - IVe si&les ap. J.-C.)', *DHA* 15, pp. 119-140.

Villeneuve, F., 1997. 'Economie et société des villages de la montagne Hauranaise à l'epoque romaine', *AArchSyr* 41, pp. 31-38.

Virgilio, B., 1987. 'I katochoi del tempio di Zeus a Baitokaike', in Virgilio, B. (ed.), *Studi Ellenistici II*. Pisa: Giardini Editori, pp. 193-198.

Vokaer, A., 2005. 'Typological and technological study of Brittle Ware in Syria', in Gurt i Esparraguera, J. M., Buxeda i Garrigos, J., and Cau Ontiveros, M. A. (eds.), *LRCW 1 : Late Roman Coarse Wares,Cooking Wares and Amphorae in the Mediterranean ; Archaeology and Archaeometry*. Oxford: Archaeopress, pp.697-709.

Vokaer, A., 2007. 'La Brittle Ware byzantine et omeyyade en Syrie du Nord', in Bonifay, M. and Tréglia, J.-C. (eds.), *LRCW 2. Late Roman Coarse Wares, Cooking Wares and Amphorae in the Mediterranean: Archaeology and Archaeometry*. Oxford: Archaeopress, pp.701-713.

Vokaer, A., 2009. 'Brittle Ware trade in Syria between the 5th and 8th centuries', in Mundell Mango, M. (ed.), *Byzantine Trade, 4th-12th Centuries. The Archaeology of Local, Regional and International Exchange. Papers of the Thirty-eighth Spring Symposium of Byzantine Studies, St John's College, Oxford, March 2004*. Farnham: Ashgate, pp.121-136.

Vokaer, A., 2010. 'Cooking wares in ancient Syria (1st to 10th centuries AD). Reconstructing the production contexts from the consumption sites', *Archaeometry* 52 4, pp. 605-627.

Vorderstrasse, T., 2005. 'Coin circulation in some Syrian villages (5th-11th centuries)', in Lefort, J., Morrisson, C., and Sodini, J.-P. (eds.), *Les villages dans l'Empire byzantin, IVe-XVe siècle*. Paris: Lethielleux, pp.495-510.

Watson, R. A., 1972. 'The 'New Archeology' of the 1960s', *Antiquity* 46, pp. 210-215.

Weakley, E. 1911. *Report upon the Conditions and Prospects of British Trade in Syria*. Presented to the both Houses of Parliament by Command of his Majesty. London: Darling & Son.

Weber, M., 1891. *Die römische Agrargeschichte in ihrer Bedeutung für das Staats-und Privatrecht* Stuttgart: Verlag von Ferdinand Enke.

Weber, M., 1976. *The Agrarian Sociology of Ancient Civilizations* London: NLB.

Wenger, L., 1931. 'Horoi asylias', *Philologus* 86, pp. 427-54.

Weulersse, J., 1946. *Les paysans de Syrie et du Proche-Orient* Paris: Gallimard.

Whittaker, C. R., 1983. 'Late Roman trade and traders', in Garnsey, P., Hopkins, K., and Whittaker, C. R. (eds.), *Trade in the ancient economy*. London: The Hogarth Press, pp.163-180.

Whittaker, C. R., 1994. *Frontiers of the Roman Empire: a Social and Economic Study* Baltimore, MD: John Hopkins University Press.

Whittaker, C. R., 2004. *Rome and its Frontiers : the Dynamics of Empire.* London: Routledge.

Wickham, C., 2005. *Framing the Early Middle Ages: Europe and the Mediterranean 400-800*. Oxford: Oxford University Press.

Wilkinson, T. and Casana, J., 2005. 'Settlements and landscapes in the Amuq Region', in Yener, K. A. (ed.), *The Amuq Valley Regional Projects. Volume I. Surveys in the Plain of Antioch and Orontes Delta, Turkey, 1995-2002*. Chicago: The Oriental Institute of the University of Chicago, pp.25-65.

Wilkinson, T., 2004. 'The disjunction between Mediterranean and Near Eastern survey: is it real?', in Wandsneider, L. and Athanassopoulos, E. F. (eds.), *Mediterranean Archaeological Landscapes: Current Issues*. Philadelphia, PA: University of Pennsylvania Press, pp.55-67.

Will, E., 1954. 'Trois quarts de siècle de recherches sur l'économie grecque antique', *Annales ESC* 9, pp. 7-22.

Willcox, G. H., 2003. 'L'économie végétale à Bosra et à Si': résultats d'analyse de restes végétaux carbonisés des périodes romaine, byzantine et islamique', in Dentzer-Feydy, J., Dentzer, J.-M, and Blanc, P.-M. (eds.), *Hauran II. Les installations de Si' 8. Du sanctuaire à l'établissement viticole* (Bibliothèque archéologique et historique t. 164). Beirut: IFPO, pp.177-195.

Witherick, M., Ross, S., and Small, J., 2001. *A Modern Dictionary of Geography. 4th Edition* Oxford: Oxford University Press.

Wood, P., 2011. 'Christian authority in Abbasid Syria: the life of Timothy of Kakushta', *Proche Orient Chrétien* 61, pp. 258-274.

Wuthnow, H., 1930. *Die semitischen Menschennamen in Griechischen Inschriften und Papyri des Vorderen Orients* Leipzig: Dieterich.

Yanai, E., 2009. 'A Byzantine wine press at Tel Hefer', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and Wine Presses in Israel from the Hellenistic, Roman and Byzantine Periods*. Oxford: Archaeopress, pp.149-152.

Yeivin, Z. and Finkielszstejn, G., 2009. 'Wine and oil presses at H.Castra', in Ayalon, E., Frankel, R., and Kloner, A. (eds.), *Oil and wine presses in Israel from the Hellenistic, Roman and Byzantine periods*. Oxford: Archaeopress, pp. 105-118.

Zeinaddin, H., 2000. 'Safaitische Inschriften aus dem Gabal al-'Arab', *Damaszener Mitteilungen* 12, pp. 265-289.

Zerbini, A., 2010. 'The Si'a Valley survey', *PEQ* 142.3, pp. 217-221.

Maps & Appendices