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Settlement in the Upper Orontes Valley from the Neolithic to the Islamic Period: An Instance of Punctuated Equilibrium *

Graham Philip
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Résumé – Cette communication se propose d’esquisser les grandes lignes du développement des installations humaines dans la vallée de l’Oronte autour de la ville moderne de Homs depuis le Néolithique jusqu’à l’époque islamique. Les données tirées de dix campagnes de terrain entreprises par le projet « Installation humaine et paysages dans la région de Homs, Syrie (1999-2010) » sont utilisées pour tracer les principaux développements dans la distribution et l’organisation des établissements dans chacun des trois ensembles de paysages contrastés. Les changements observés en diachronie dans chaque ensemble sont analysés dans la perspective de leurs possibles relations avec les développements politiques et économiques à une échelle régionale plus large.

Mots-clés – Vallée de l’Oronte, Homs, Néolithique, période islamique, paysage, installation humaine, échelon local, échelon régional

Abstract – This paper presents the main developments in settlement organization in the Orontes Valley around the modern city of Homs from the Neolithic through to the Islamic period. Data drawn from ten seasons of fieldwork undertaken by the project “Settlement and Landscape Development in the Homs Region, Syria (1999-2010)” are used to delineate the main developments in settlement distribution and organization in each of three contrasting landscape units. Settlement change over time in each unit is considered in terms of its possible relationship to political and economic developments at a wider regional scale.

Keywords – Orontes Valley, Homs, Neolithic, Bronze Age, Iron Age, Graeco-Roman, Islamic, landscape, settlement, local scale, regional scale

* The project wishes to thank the staff of the Damascus and Homs offices of the Directorate General of Antiquities and Museums of Syria, for their help and kindness offered during our many seasons of fieldwork. We also owe a debt of gratitude to the local communities, whose willingness to allow a group of archaeologists to walk repeatedly around their villages and across their fields, proved essential to the success of the project. Funding for fieldwork was provided by the Council for British Research in the Levant (CBRL), the British Academy and Durham University. Post-fieldwork analysis and preparation of material for publication has been generously supported by the Leverhulme Trust, Grant F00128/AR (2007-2010).

Syria, Supplément IV (2016), p. 377 à 395
INTRODUCTION

Settlement and Landscape Development in the Homs Region Syria (SHR) is a Joint Syrian-British project involving Durham University and the Directorate General of Antiquities and Museums Syria. Fieldwork continued annually from 1999 until 2010. The co-directors are Graham Philip (Durham), Michel Al-Maqdissi (DGAM, Damascus) & Farid Jabbour (DGAM, Homs). In addition to its intrinsic interest as a geographically distinctive section of the Orontes Valley, for which little previous settlement data existed, the area is of interest for a number of reasons.

The study area (fig. 1) is located where the east-west route offered by the Homs-Tripoli gap intersects the north-south route along the Orontes and southwards into the Beqʿa Valley. The upper reaches of the Orontes run through the Beqʿa Valley, which provided an important north-south route, that avoided the more arid regions east of Damascus, and that formed a historic connection between southern and northern regions of the Levant. The Homs region also lies close to the junction of three well-known and enduring major material culture regions: inland Syria, the coast and the southern Levant, and has ready access to the steppe zone to the east.

Located directly west of the central Syrian steppe, but comfortably within the range of reliable rain-fed agriculture, the study area ought to provide a guide to diachronic trends in settlement in an area that is relatively ‘low-risk’ in terms of rainfall, and in which we might therefore expect settlement stability to have been the norm. The data from a settlement ‘core’ such as the Orontes Valley will provide an important point of comparison for the distinct phases of settlement contraction and expansion that have been revealed by work further to the east, in what Wilkinson et al. term the ‘Zone of Uncertainty’.

The survey area encompasses two quite different landscape types (fig. 2). To the east of the Orontes the soils are calcareous and overlie Late Miocene lacustrine marls: mudbrick construction is the norm. The region west of the Orontes represents the eastern extent of the Shin basalts, which are of Late Miocene–Early Pliocene date and, in places, are interbedded with the marls. This area has volcanic soils, and offers an ample supply of stone for building. In fact, these two geological regions have allowed the project to define three distinctive survey regions, one basaltic and two marl regions.

The basaltic region immediately west of Lake Qatina has been investigated by a Spanish-Syrian-Lebanese team, while Syrian-British project has focused on an area located north-west of Homs, crossed diagonally by the present-day Homs-Masyaf road. As the evidence for both Chalcolithic/EBA and Graeco-Roman period activity in the basaltic region has been discussed at length elsewhere, comments on this area will be kept relatively brief in the present account.

1. Philip, JABOUR, BECK et al. 2002a, p. 34.
2. PHILIP & BRADBURY 2010, fig. 1.
4. For further discussion of the concepts of settlement ‘cores’ and the ‘Zone of Uncertainty’ see Wilkinson, Philip, Bradbury et al. 2014.
5. BRIDGLAND, WESTAWAY, ABOU ROMIEH et al. 2012, p. 28.
7. CREMASCHI 2007, p. 94.
8. NAʿAMAN 1951, p. 87-88, fig. 8.
When viewed from within, the southern marls appear deceptively flat. However they slope in a north-westerly direction from an altitude of 710 m at the south-eastern corner of the Southern Study Area to a height of around 498 m at the margin of Lake Qatina. The marl is crossed from south-east to north-west by a series of shallow seasonal wadis, which are readily detectable on Corona imagery by the distinctive reflectively of the concentrations of pebble that have been deposited in the dry wadi beds. 11 On the evidence of Corona data the pebble trails stop several kilometres east of the Orontes River, suggesting the wadis carried only a modest flow in recent decades. The marl today offers little in the way of perennial surface water: villages in this area traditionally relied upon wells as their main water source. However, virtually the entire area receives more than 300 mm of annual precipitation, making it suitable

for rain-fed cereal production. The most distinctive topographic feature of the flat marl landscape today is the occasional presence of tells, most of which reveal the high, steep-sided profile that indicates the presence of a defensive rampart.

Settlement activity in the marl landscape can be divided into three main phases. A lengthy period of dispersed settlement during the Neolithic and Chalcolithic is followed by an agglomerated, tell-based pattern from the Early Bronze Age through to the Hellenistic period. Roman and later settlements mostly take the form of flat sites, suggesting they were not fortified. In contrast to the tells, many of which had not been extensively damaged (as of the cessation of fieldwork in 2010), most of the later settlements display significant levels of damage, mainly through agricultural activity, ploughing, the digging of holes for tree-planting, and less frequently, on-site construction.

**EARLY SETTLEMENT IN THE UPPER ORONTES VALLEY**

*The dispersed landscape of the Neolithic – Early Chalcolithic (fig. 3)*

In the southern marls, the basal deposits of Trench VIII at Tell Nebi Mend produced evidence for a Ceramic Neolithic occupation dating to the mid-late 7th mill. B.C. The fact that only one small sounding was excavated right down to the water table, and that this still produced Ceramic Neolithic occupation, renders it likely that the settlement of this period extended over a reasonably large area, probably several hectares, beneath the later tell. There is no evidence for 6th-5th mill. B.C material at Nebi Mend. Therefore the presence of an 8 ha scatter of just such material at Arjoune on the east bank of the Orontes just 1 km north of Nebi Mend, suggests that occupation simply shifted between the two locations. With the exception of the small tell of Arjoune (SHR 286), which produced both Persian period and Neolithic material, the site is very badly eroded, and soundings excavated away from the tell revealed mainly shallow pits and scoops with little preserved stratigraphy. This makes it hard to estimate the size of the occupation at any one point in time. However, it seems reasonable to posit the existence of a settlement of several hectares in extent, at either Nebi Mend or Arjoune, from the later 7th through to the later 5th mill. B.C.

Small quantities of Ceramic Neolithic pottery and chipped stone were recovered from a number of the other tells (fig. 3), located both at the edge of the Orontes/Lake Qatina and along its tributary wadi systems, suggesting that other Neolithic settlements existed. As far as we can judge from surface collection, none of these appears to have extended beyond the boundaries of the overlying Bronze Age tell, suggesting that we are dealing with relatively small prehistoric settlements in these locations. However, the presence of chipped stone finds of Neolithic-Chalcolithic date within surface collections undertaken in sample collection units placed along the wadi systems, points to a degree of ‘off-site’ activity mainly focused along the watercourses.

In the northern marls ceramic finds were concentrated at few sites along the Orontes, in particular those located close the junction of the Orontes and its tributary wadi systems, on both the east and west sides of the river. SHR 94 in particular, located on a terrace outcrop a short way east of the Orontes, is the only site, apart from Arjoune, to have produced instances of dark on light painted wares (i.e. akin to Halaf/Ubaid). As the scatter extends over several hectares, SHR 94 may well represent the major locus of Neolithic-Chalcolithic activity in this area. Evidence for 6th-5th mill. B.C activity in the basalt landscape takes the form of diagnostic chipped stone recovered in the vicinity of seasonal lakes.

Early & Middle Bronze Age Settlement in the Upper Orontes Valley

The intensification of activity in the 4th and early 3rd mill. BC (fig. 4)

Following a hiatus, the resumption of settlement at Nebi Mend is marked by the presence of chaff-tempered ceramics, the Fabric C of Mathias. Recent (as yet unpublished) radiometric dates suggest that this material was present at the site by the early 4th mill. BC calibrated, continued into late 4th mill. BC deposits, and its use may have extended into the early 3rd mill. BC. Similar pottery occurs at a number of sites in the survey area, which are accordingly assigned to Late Chalcolithic – EB I-III (fig. 4). During the second half of the 4th mill. BC, the chaff-tempered pottery is joined by well-fired reddish buff fabrics, the Fabric B of Mathias, which is also widely distributed. This ceramic provides an indicator for activity falling in the late 4th and early part of the 3rd mill. BC calibrated. Lacking better chronological discrimination, all we can say is that there appears to have been considerable continuity of settlement through the 4th and earlier 3rd mill. BC (fig. 4) and this period represented a marked intensification of settlement compared to the Ceramic Neolithic.

In the southern marls the location of sites foreshadows that of the later tells, although one or two settlements appear not to continue after this period. Once again activity is concentrated along the Orontes, and on the tributary wadi systems. Some offsite activity is still documented, but no sites were identified that were located beyond the present-day 300 mm isohyet. Site numbers also increased in the northern marls, and offsite activity is indicated around SHR 94, while both it and SHR 81 on the west bank of the river continued to be occupied.

As with Neolithic activity, it is difficult to be certain whether the apparent lack of Chalcolithic/EBA material at sites such as SHR 83 and 97 is genuine or whether it has simply been obscured by later overburden. When figures 4, 5 and 8 are compared, it is clear that late 4th/early 3rd mill. BC settlements had already occupied most of the locations that would be enduring components of the later tell landscape. Of course the settlement pattern of this period would have lacked the obvious high tells, with most sites being no more than low mounds by the early 3rd mill. BC. While a few ‘flat’ (non-mounded) sites remained under occupation, these we believe represent those Chalcolithic-EB I-III sites that did not become later fortified tells, and overall, offsite material appears to be less common than in earlier periods.

EB IV: the crystallization of the landscape of tells (fig. 5)

In the southern marls the EB IV represents a major peak of activity with virtually all the sites that developed into later tells now settled. In the northern marls too, the settlement pattern is close to that of the later tell structure. The EB IV period might therefore be described as that which saw the crystallization of the Bronze Age settlement system, a point made by Haïdar-Boustani on the basis of a survey undertaken in the region west of Lake Qatina. The period is also characterized by a marked decline in off-site activity. While it is possible that this perception is influenced by the decrease in chronologically diagnostic chipped stone types when compared to earlier periods, the modest recovery of EB IV ceramics away from obvious ‘sites’ appears to confirm the growing nucleation of settlement from EB IV onwards.

It seems possible that the consolidation of settlement in the Orontes valley during EB I-III was a prerequisite for the massive expansion of activity into the eastern steppe that is evident during EB IV. In fact, one of the characteristics of this expansion is the appearance east of Homs of a number of single-period, walled EB IV sites of circular form. In this light, SHR 254 appears of...
interest. This is a large (8 ha) sub-circular settlement, enclosed by a broad ditch. It is located close to the present 350 mm isohyet, in the most arid south-eastern part of the southern marls, albeit close to one of the seasonal wadi systems. In terms of its morphology the site resembles the more easterly walled EB IV sites, and might be viewed as a westerly exemplar of this type. Unlike settlements to the east however, SHR 254 has produced ceramic evidence for both activity earlier than EB IV, and dating to the later Bronze and Iron Ages. The continued use of SHR 254, in contrast to the short occupations that characterize similar sites further east, may well reflect the rather different trajectories of settlements located closer to ‘core’ areas.

**Chalcolithic-EBA activity in the basaltic landscape west of the Orontes (fig. 6)**

As this region has been described in detail by Philip and Bradbury, a brief summary will suffice here. The Homs basalt offers a stony landscape comprised of a series of low boulder-strewn plateaus, interspersed with shallow colluvium filled valleys and depressions. It receives higher average rainfall than the marl zone to the east, and thus small stream beds and internal depressions collect the winter rains, and can retain these well into spring. Thus, while fairly barren-looking in high summer, the terrain offers standing water in seasonal streams and pools, combined with a good supply of grazing and/or fodder plants from late winter and through spring and early summer.

In this area settlement was focused upon a small number of occupations located along the main drainage systems (several of which were eventually to develop into small tells), supplemented by a larger number irregular stone enclosures, often located away from the valley bottoms, and which we have argued are associated with the seasonal management of animal herds. The similarity of the material collected from the valley bottom sites and the enclosures suggests that they were part of a single settlement system.

Without excavation, and in light of the restricted shape-repertory of the local basalt-tempered pottery, much of the activity in this area can be dated no more precisely than to Late Chalcolithic-EBA, but it is clear that the period spanning 44/4200-2500 cal. BC saw a significant expansion of activity in the basalt region (fig. 6), which may simply be one part of a pattern of movement into ‘sub-optimal zones’ that was related to wider economic developments. It is worth noting that the ceramics from sites in the basalt region, which are generally locally-made using basaltic temper and among which hole-mouth jars are common, are quite different from the types that predominate on sites east of the river. Secondly, while a small number of sherds diagnostic of the EB IV period was recorded at sites in the basalt, these are not widespread, and EB IV settlement in the area appears to be focused on handful of tells. We have suggested elsewhere that the area declined in importance during EB IV because its relatively restricted resources could not offer the kind of high-returns that could be gained from the extensive grazing of large flocks in the eastern steppe during EB IV. The latter strategy was particularly well-suited to the newly emergent state economies, because unlike village-level herders, they could afford to manage the greater element of risk that grazing the steppe entailed.

The region also includes tens of thousands of cairns (fig. 7), many of which include chambers indicative of their use for burial. While these have almost invariably been disturbed, and are difficult to date, the material collected from the immediate vicinity of cairns suggests that their construction began no later than the 4th mill. BC, with their use and perhaps even construction continuing through

27. Bradbury & Philip 2011.
into the Islamic period 28. That said evidence from the Palmyra region, the Jordanian Badia and the Negev pointing to the use of cairns during the Neolithic means that an earlier date cannot be ruled out on present evidence. 29

**Continuity into the 2nd mill. BC (fig. 8)**

In the southern marls MBA settlement has the same basic configuration as during EB IV (fig. 8). It is during the 19th cent. BC, that the name qa-di-sa-a (Kadesh), the present day Tell Nebi Mend, first appears in written sources. These take the form of texts from Mari that mention troops from Qatna undertaking military activity in the area. 30 The Mari texts also make specific reference to a strongpoint, located not far from Qadesh, called Dur Ishki-Addu. The fortress was located close to a lake, and according to Ziegler might constitute part of the boundary of the Qatna kingdom. 31 If so, this ought to refer to the northern part of Lake Qatina, as the lake almost certainly expanded southwards following the construction of a dam at the northern end in the Roman period, which would have raised the water level. It is therefore interesting to note the presence of a succession of small, steep-sided tells positioned along the eastern

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margin of the present-day lake, or close to the east bank of the Orontes. An additional tell located on the east bank of the Orontes a short way north of the northern boundary of the Southern Study Area is not shown on fig. 8 as our surveys collected no Bronze Age material from it. This tell does appear on fig. 10, however, because collection by a previous team appears to have recovered MBA ceramics.  

In the northern marls (i.e. north of Homs) occupation was concentrated on the east bank side of Orontes where a series of small, steep-sided tells, separated by intervals ranging between 1 and 3.5 km was located. There were no inhabited tells on the western bank of this stretch of the river. The sites along the eastern bank were not generally located on tributary wadis, but rather close to, and often directly overlooking the river, presumably to monitor and control movement. The two low tells located on tributary wadis (SHR 81 on the west bank and SHR 94 on the east) that had been occupied during the EBA produced no Middle or Late Bronze Age material. The few larger tells (ca 3-5 ha in size) such as SHR 97 and Tell Bissé (SHR 1301 which is located just outside the eastern boundary of our survey area) were positioned several km east of the river. Taken together this might be read to indicate that the Orontes River served as a boundary. Given the nature of the local topography discussed above, and the political situation during the MBA, it seems reasonable to see this as representing the western boundary of the Qatna polity, with the small sites designed to control access to and from the inhospitable basalt landscape to the west. In the latter region, a few sites have produced what appear to be MBA ceramics. In particular, the presence of occasional, heavily-eroded buff-coloured sherds, which are quite distinct from the local basalt tempered material, almost certainly indicate contacts with the marl zones to the east.

LBA Settlement in the Upper Orontes Valley (fig. 9)

Localised trajectories, reflecting a divergence between the northern and southern marls are apparent from the 14th cent. BC onwards. The northern marls witnessed a decline in settlement, with the line of small sites along the river much reduced (fig. 9), although occupation continued at SHR 270, a tell adjacent to the river, which produced a good selection of diagnostic pottery (in-part because the area has been heavily bulldozed and terraced for olive cultivation). LBA occupation was also present at SHR 97 some 3.5 km east of the Orontes. As Morandi Bonacossi has observed, 33 the apparent decline of this line of small tells may be linked to the demise of Qatna as a regional power.

In the southern marls, however, the majority of sites occupied during the MBA continued to be settled into the latter part of the LBA. This is consistent with the position of Kadesh as the regional centre for this area, as the latter site remained a major political force until the end of the LBA. 34

The Landscape of Tells: Key Observations (fig. 10)

Among the factors that characterize the distribution of tell settlements between EB IV and the LBA are that all tells are located either on the Orontes River or one of its tributary watercourses, and within the present-day 300 mm isohyet. Most of the tells in the survey area were small, with more than 70% of tells being less than 3 ha in extent (table 1). Sites of this kind form the basic unit of the Bronze and Iron Age settlement in many parts of the Middle East. 35

33. MORANDI BONACOSSI 2013, p. 125-126.
34. LIVERANI 2014, p. 348-50.
Table 1. List of tells with evidence for Bronze and/or Iron Age occupation, showing extent of the site and its location in either the Southern Marls, Northern Marls or Basalt.

<table>
<thead>
<tr>
<th>Site ID</th>
<th>Area (ha)</th>
<th>Location</th>
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<tbody>
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<td>22.6</td>
<td>SM</td>
</tr>
<tr>
<td>SHR_49</td>
<td>1</td>
<td>B</td>
</tr>
<tr>
<td>SHR_65</td>
<td>3</td>
<td>B</td>
</tr>
<tr>
<td>SHR_81</td>
<td>1.2</td>
<td>B</td>
</tr>
<tr>
<td>SHR_83</td>
<td>2.5</td>
<td>NM</td>
</tr>
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<td>SHR_88</td>
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<td>NM</td>
</tr>
<tr>
<td>SHR_90</td>
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</tr>
<tr>
<td>SHR_94</td>
<td>7.8</td>
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</tr>
<tr>
<td>SHR_97</td>
<td>3.7</td>
<td>NM</td>
</tr>
<tr>
<td>SHR_173</td>
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<td>SM</td>
</tr>
<tr>
<td>SHR_183</td>
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<td>SHR_216</td>
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<td>SHR_229</td>
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<tr>
<td>SHR_315</td>
<td>9</td>
<td>SM</td>
</tr>
<tr>
<td>SHR_358</td>
<td>Tell = 0.2 ha; lower settlement 7.3 ha</td>
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<tr>
<td>SHR_668</td>
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</tr>
<tr>
<td>SHR_670</td>
<td>Just outside study area, below modern settlement; original size unknown</td>
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</tr>
<tr>
<td>SHR_860</td>
<td>1.2</td>
<td>B</td>
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<tr>
<td>SHR_866</td>
<td>0.5</td>
<td>B</td>
</tr>
<tr>
<td>SHR_880</td>
<td>Size uncertain as extent obscured by modern settlement</td>
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</tr>
<tr>
<td>SHR_888</td>
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<td><strong>TOTAL</strong></td>
<td><strong>120.4</strong></td>
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The Marl Landscape

All tells exceeding 5 ha in size occur in the marl landscape: the largest tell in the basalt measures just over 3 ha. The sole site that exceeds 10 ha in area, SHR 14 (22 ha), is a ramparted enclosure. Although it has produced ceramics dating to most periods from the Neolithic through to the Iron Age, it is unlikely that its period of maximum extent was prolonged (see below). The three sites in the size range 5-9.99 ha include two large single-mound tells —SHR 315 (Tell Nebi Mend) and SHR 1302 (Qalaat Homs) and SHR 254 which consists of a small high tell, with an adjacent much larger lower settlement in the form of a ditched enclosure. These three sites are spaced out across the region, separated by distances of between 12 and 26 km.

In the northern marls there are fewer sites. The five tells positioned close to the river, are all high and steep-sided: they range in size between 1 and 4 ha. The tells located a little further away from the river tend to be in the 3-5 ha range. The largest is SHR 94, a large low tell of Neolithic-EBA date which offers no evidence for ramparts, and which is located around 400 m east of the Orontes just south of its confluence with a right-bank tributary. Around 250 m to the north and right on the river bank is SHR 270, a (now very much modified) multi-period tell with occupation continuing through the Bronze and Iron Ages. SHR 270 might reasonably be interpreted as the continuation of settlement from SHR 94, suggesting that this particular area formed an important concentration of settlement within the northern marls, perhaps explaining why SHR 270 continued in use though LBA.

The Basalt Landscape

The basalt region contains relatively few tells, and none greater than 3 ha in extent. The average size is 1.4 ha, suggesting that sedentary population levels in this landscape remained low. However, the rather different history of tells in the basalt, where many continued to be settled well into the Roman and Byzantine periods, combined with their distinct taphonomy, (the result of the use and re-use of stone as a construction material), makes anything more than a very general comparison with the mudbrick-derived tells of other regions hazardous.

Interpretation of Small Tells

A value close to the lower end of the widely used estimate of 100-200 persons per hectare is often seen as appropriate for calculating the probable population of small rural settlements. In that case, a 1 ha tell with a population of around 100 individuals appears to correspond quite well with the smallest class of village settlement that is listed in the Alalakh texts, and which comprised around 7-9 households. Many of these appear to represent small agricultural villages. In fact, in many cases the figure quoted for the area of a tell is that of the circumference around the base. This is potentially misleading because of the disproportionate scale of the fortifications that surrounded even small tell sites. To take SHR 256 as an example (fig. 11), the extent of the tell at its base is 2.3 ha (170 m in diameter). However, a bulldozer cut on the south side of

Figure 11. SHR 256, a typical example of a small, steep-sided tell. Ikonos Panchromatic image
February 2002 © G. Philip, J. Bradbury

the tell exposed a mass of mud bricks, some collapsed, around 20 m wide, almost certainly related to defensive structures. Were the tell encircled by a band of defence-related construction of roughly this size, then the area available for occupation that would have been reduced to 1.3 ha (based on a diameter of 130 m), and even less on the upper parts of the tell. Bearing this in mind, the lower range of the population figures that appear in the texts from Alalakh appear perfectly reasonable for tells in the 1-3 ha size-range.

Not only are these sites small and heavily fortified, they are also long-lived, a point also made by Casana.37 Contrary to our initial expectations, our survey did not recover large numbers of non-tell settlements dating to the Middle and Late Bronze, or Iron Ages, indicating that the tells constitute the greater part of the landscape of permanent settlement for the 2nd and 1st mill. BC. An intensive survey of the Amuq, that like our own project used satellite imagery as a prospecting tool, revealed a similar situation.38 This suggests that in many of the primary agricultural basins of the Fertile Crescent, the small tell site was the predominant form of rural settlement, and that settlements and territory often went together as one indivisible unit,39 with the tell functioning as a ‘place holder’ in the landscape for matters of land ownership and control of resources.40

However, discussions which view tells as markers for long-term ownership should not overstress the role of the resident communities. The inhabitants of most small tells were probably not ‘owner-occupiers’, but communities obliged to provide tribute or taxation to regional elites. Thus the presence of a few sherds of imported Cypriot and Mycenaean pottery within surface collections taken from even quite small tells might be read to imply the presence, on at least some small tells, of local headmen or officials with access to social and economic networks centred on larger settlements such as Qatna or Kadesh. In fact, when viewed in its totality, the creation and maintenance of substantial fortifications, the continued use of the same limited number of locations, and the likely presence of individuals with connections to wider networks, argues for the symbolic power of the fortified tell as an enduring fixed point in the landscape. We would argue that fortified tells were an integral part of a world of increasing political control, and management of agricultural production and storage, by distant elites.

The diverse nature of larger sites

The status of Tell Nebi Mend (generally believed to be the site of Kadesh) as a single tell of 9 ha in area, is in marked contrast to the neighbouring centre of Qatna which covers around 110 ha.41 This begs the question of why there was such a massive difference in size between the two major 2nd mill. BC centres in western Syria?

However, the situation with regard to Nebi Mend is a little more complicated. Only 3 km northeast of Nebi Mend lay the 22 ha site of Tell es-Safinat Nabi Noah (SHR 14), a ramparted rectilinear enclosure, with a wide external ditch from which the material for construction of the rampart was excavated. While it may seem counterintuitive for the two largest sites in the area to be located so close together, this situation is less odd if the two sites are understood as occupying different niches within a single regional system.

SHR 14 is unusual on several counts. Firstly, the surface of the interior of the site is little more than 2-3 m higher than the fields immediately outside the ditch. When allowance is made for the build-up in the interior of the site of wash deposits from the inner slopes of the rampart, this difference does not suggest sustained occupation. This is a very different situation to that indicated at Nebi Mend, and most other tells in the area. Another indication came from the investigation of several rows of small pits that had been dug into the site by local farmers for planting olive trees. Inspection of the spoil heaps beside each pit revealed distinct spatial concentrations of large stones, typically used for the foundation

41. Morandi Bonacossi 2007, p. 73, n. 39.
courses of walls, pottery sherds and cream-yellow floor-plaster (fig. 12a-c). This suggests the presence of substantial structures close to the ground surface, along a line connecting the two gates, which are visible as gaps located close to the midpoints of the eastern and western ramparts. Finally, it would seem illogical to position a site intended to house a substantial residential population at a distance of 1 km from the Orontes, unless animals were likely to be available for water transport. Taken as a whole, the evidence suggests that SHR 14 is most likely to have been a special purpose site of some kind, perhaps a fortress, storage complex, or barracks. Clearly all large sites cannot be treated as direct equivalents, and analyses that rely upon site area alone as an indicator of ‘centrality’ require careful handling.

In fact, Bronze Age sites as large as Qatna are uncommon in western Syria. In many areas the largest sites do not exceed 20-30 ha, while in most areas the vast majority of tells is under 5 ha in size, predominantly in the range 1-3 ha as evidence by the situation in the Amuq, the Akkar Plain, the Qatna Survey and the Beq’a and elsewhere. The Upper Orontes area conforms to this pattern (table 1); and apart from SHR 14 discussed above, the two largest tells in the study area are Nebi Mend which is 9 ha in extent, and SHR 254, also ca 9 ha, which is located towards the south-eastern extent of the Southern Marls.

However, another possible explanation for the small size of Nebi Mend is that this tell was simply one component of a ‘Kadesh’ that consisted of a zone of relatively dense but discontinuous activity extending along the banks of the Orontes from Nebi Mend itself in the south, to Tell el-Bahr (SHR 212) some 7 km to the north (and currently within Lake Qatina). There are six tells with MBA and/or LBA occupation, positioned along this 7 km stretch of the river, and these have a combined area of 18 ha (fig. 13, table 1). As most of these have suffered erosion by the lake since the construction of the Roman dam, and in particular the subsequent raising of the lake level, the interpretation of these tells requires care. GPS data overlaid upon Ikonos panchromatic satellite image dated Feb. 2002 © G. Philip, J. Bradbury.

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42. Casana 2007, p. 203, fig. 4.
43. Thalmann 2007, p. 222.
44. Morandi Bonacossi 2007, p. 71.
45. Marfoe 1998, p. 168, fig. 38; for an interregional comparative analysis see Lawrence, Philip, Hunt et al. 2016.
the water level by its extension in the 1920s, this figure is probably a minimum. In addition the project recorded several other artefactual concentrations that produced 2nd mill. BC material, all of which lie very close to the current margins of the lake and have therefore been massively eroded (SHR 1036 —2 ha; SHR 211 —1 ha; SHR 498 —0.5 ha). The presence of wall lines visible among the stones on the bottom of the lake in the area between SHR 1036 and SHR 212 (these may not be continuous but are certainly visible in the shallower water close to each site) suggests that the expansion of the southern end of the lake may have eroded-away a rather more extensive concentration of activity in that vicinity. Finally, if SHR 14 were to be added, the total settled area would fall somewhere in the region of 50 ha, much closer to what would be expected of a major power. Unfortunately, the intriguing possibility that Kadesh might represent a dispersed centre rather than having been focused on Tell Nebi Mend alone, could only be tested with a programme of intensive survey along this densely occupied and cultivated stretch of the river.

IRON AGE THROUGH HELLENISTIC SETTLEMENT IN THE UPPER ORONTES VALLEY (FIG. 13)

Iron Age Settlement in the Upper Orontes Valley (fig. 13)

The survey has produced little recognizable Iron I material. However, with Iron II both the northern and southern marls witnessed a return to a mainly tell-based settlement pattern, based largely on the reoccupation of sites used in the Middle and Late Bronze Ages. The absence of Iron I material was also observed in the region around Qatna. While Iron I occupation may indeed be absent, an alternative explanation is that we are simply unable to differentiate Iron I ceramics clearly from those forms typical of the latter part of the LBA. Clarification must await the excavation of suitably stratified remains.

The concentration of Iron II settlement on existing tell sites appears to confirm their role as ‘place-markers’ in both the social and economic landscape, and may have implications for the continuity of social memory and land tenure through the LB/Iron transition. That said, the appearance of Iron Age material on several small ‘flat’ sites, that had not been occupied during the Middle or Late Bronze Ages, might hint at some modification of land-management patterns. There is very little evidence for Iron Age activity in the basalt, a pattern similar to that noted by Haïdar-Boustani for the region west of Lake Qatina.

While the historical sources offer few specific details relating to the survey area itself, the region must have been closely involved in the political changes that marked the Iron Age in the wider Orontes Valley. These included the growth of a new regional power at Hamath, a series of Assyrian military campaigns leading eventually to the conquest of the Orontes region by the Assyrians in the late 8th cent. BC, its eventual absorption into the Assyrian provincial organization, and a combination of the deportation of parts of the original population and the re-settlement of people from other regions of the Assyrian Empire. It must be admitted however, that these changes cannot be linked directly to the changes apparent in the settlement record, although both the appearance of a small number of new Iron Age settlements located off the earlier tells, and the lack of activity in the basalt might reflect new political or economic drivers. In fact, from a local perspective, the most obvious change from the Bronze Age world may have been that the key centres of political power now lay outside, rather than within, the survey region. Kadesh was now no longer a major political force, and the region may well now have served more as a primary producer and supplier of taxes for more distant polities, than as a locus of conspicuous consumption.

The Iron II-III ceramics from the survey are fairly typical for west Syria, although it is worth noting that in terms of cooking pots, sites located to the north of Homs tend to produce the Inland Syrian

48. On this point see also Morandi Bonacossi 2013, p. 125.
holemouth form, while those south and west of Homs, such as Nebi Mend, produce mainly basalt-tempered, short-necked cooking-pot forms, with parallels to the west and south.

**Hellenistic Settlement in the Upper Orontes Valley (fig. 14)**

The tell-based settlement system continued into the Hellenistic period, although in the southern marls there was also a number of ‘flat’ sites, perhaps implying a further modification of the organization of landholding and agricultural production. Much of the Hellenistic pottery recovered can be dated only to the Hellenistic period in general. However, when the distribution of those forms that can be dated to either an early or later phase of the period is plotted, a distinct pattern emerges (fig. 15). For the forms that characterize the two phases see Reynolds.  

In the southern marls ceramic forms falling early in the Hellenistic are distributed across the tells that were occupied in the Iron II-III. However, distinctively Late Hellenistic forms show a particular concentration around Tell Nebi Mend, which, refounded as the Hellenistic settlement of Laodicea-ad-Libanum, is first mentioned in connection with Antiochus III’s campaign in 221 BC. An increase in military activity in the Beq’a, as the result of wars between the Lagids and Seleucids in the 3rd and first half of 2nd cent. BC may have boosted the significance of the site, which may subsequently have become a major focus of activity. The appearance of Hellenistic period material on one or two ‘flat’ (i.e. non-tell) sites in the vicinity of Nebi Mend may bear witness to this development (fig. 15). In the northern marls, Early Hellenistic forms reflect the continuation of the pattern of tells along the Orontes that existed in Iron II-III, while Late Hellenistic forms are less widely distributed (fig. 15). These ceramic data suggest that there was a reoccupation of the basalt landscape during the Hellenistic, perhaps connected to the growth of the centre of Arethusa (Rastan) on the Orontes some 10 km to the east, which according to Appian was founded by Seleukos I Nikator in the 3rd cent. BC.  

While there was some continuation of tell based settlement, sites of other types were also occupied, including possible square towers.  

In short, settlement early in the Hellenistic resembles that of Iron Age in many ways, with a considerable amount of occupation remaining on tells. Later in the period the southern marls appear to witness a concentration of activity in the area around Tell Nebi Mend, perhaps associated with the development of a new foundation there. Although Tate’s suggestion that the region around Emessa contained no sedentary peoples is no longer tenable, the evidence hints at some reduction of settlement, except in areas in the vicinity of major Hellenistic centres. This is consistent with the impression given by the historical sources of instability in southern Syria generally, and in the area around the Beq’a and mountains of Lebanon in particular. This point is echoed in the comment of Strabo that much of the region from Euphrates to the Beq’a was under control of scenitae (tent-dwelling) tribes, and that even the Kings of Emessa themselves lived in tents. One might imagine a growing contrast between areas controlled by tribal rulers and a patchwork of more effectively Hellenized polities along the Orontes. The river, as a perennial source of water, would have formed a key route connecting the Seleucid political centre at Apamaea with the Beq’a Valley, Baalbek and the south, and thus its continued control by Hellenized settlements would have been important both politically and militarily.

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52. Reynolds 2014, p. 53-54.
54. Sartre 2001, p. 188.
57. Tate 1997, p. 57.
58. Sartre 2005, p. 32-4
CLASSICAL AND MEDIEVAL SETTLEMENT IN THE UPPER ORONTES VALLEY

Landscape Reorganization in the Roman period

The Roman period witnessed a significant shift of settlement away from tells (fig. 16). Most sites that produced Roman period material were low relief ‘flat’ sites, that ranged between 1-4 ha in size, and sometimes bore fragments of masonry or tile on the surface; these appear in new locations. These sites are interpreted as the remains of unfortified, agricultural settlements, and when named on Syrian or French maps they are usually associated with toponyms that include the term ‘khirba’ (ruin) rather than ‘tell’.

Less obvious to ground reconnaissance than tells, sites of this kind were readily identified by their distinctive reflectance patterns on Corona satellite imagery. This results from an association between settlement debris and areas of deposit with a surface reflectance that is higher than that of the surrounding ‘natural’ soils. On the ground, settlement debris appears as areas of distinctive light colored soil. As our project has used scanned Corona negatives rather than positives, however, in our Corona images the areas of high-reflectance soils that characterize sites tend to appear darker, rather than lighter, than their surroundings.  

It is important to grasp that in the Homs marls at least, virtually the entire Roman and Medieval settlement record is composed of sites of this kind. This is a result of the use of mudbrick as the main building material, and the attrition caused by the long-term exploitation of this region for agriculture. ‘Late’ settlement is accordingly much less obtrusive in landscapes like those of the Homs marls than is the case in rocky regions where standing architecture is relatively common, and it is possible to identify individual buildings, and even discern entire settlement plans. The basalt landscape west of the Orontes is a case in point.

The ceramic indicators that we use to define ‘Roman’ first appear in the region around the mid-1st cent. AD. A significant number of the new ‘flat’ settlements have produced material that can be ascribed to the later 1st through the 3rd cent. AD (fig. 17), suggesting that the major reorientation of the landscape took place within that period, that is subsequent to the region’s annexation to Roman Syria, an event that Sartre places between 72 and 78 AD. The absence from rural sites in the Homs region of the range of imported amphorae that were recovered at the port of Beirut during the 1st to mid-3rd cent. AD, and the limited evidence for connections with the littoral, might suggest that rural sites in the Homs region were oriented towards agricultural production rather than the consumption of non-local products. Some indication as to the orientation of traffic may be taken from ceramic connections with Baalbeck and the Beq’a.

A number of these sites revealed one or more areas of topographic depression on the surface (fig. 18). The latter were frequently noted on the Syrian 1:25,000 map series, and when plotted, the depressions were often on, or located close to, areas of high reflectance, suggesting an association between depressions and ‘late’ settlements, although by no means all depressions are directly associated with sites of specifically Roman date (fig. 19). These we interpret as underground cisterns, most probably clay-lined, that are in the process of collapsing as a result of increasingly intensive agricultural practices.

Also of note is the presence of a meandering channel, which in the more southerly part of its course revealed evidence for a bank on either side (fig. 20). This feature runs roughly south-north, a direction that differs from that of the tributary watercourses of the Orontes, which run from south-east to north-west and along which the tell sites are located. In addition, the wadi systems follow a marked downward gradient (in the region of 10 m of altitude per kilometre of length), while the height of the channel drops

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60. Philip, Donoghue, Beck et al. 2002b, p. 113, fig. 3.
64. Reynolds 2014, p. 57-58.
less than 5 m along its entire course of just under 10 km. This very gentle gradient is confirmed by the presence of meanders and, along its northern extent, multiple channels. The channel also appears to have been directed to run around the obstacle represented by the Bronze Age settlement of SHR 14 (Nabi Noah), and must therefore post-date the construction of the ramparts. A section excavated across the channel a short way south of SHR 14 produced freshwater mussel shells within the silty-grey channel fill, indicating that its water was derived from the Orontes, presumably by a dam located around 2.2 km south of Nebi Mend. Unfortunately the channel cannot be traced back to its exact exit point from the river, either using Corona imagery or on the ground, because the relevant area has undergone massive alteration in recent decades.

As the channel terminates close to a Roman-Byzantine settlement (SHR 332), and other sites located along the channel are generally of Graeco-Roman date (fig. 20), it makes sense to view it as having been constructed during the Roman period. Related is a faint linear shadow, which runs in NE-SW direction, between 0.5 and 0.8 km south-east of the channel, and which swings around to the west to intersect with the channel at a location some 0.6 km south of SHR 014 (fig. 20). The Corona imagery shows several small (but unidentifiable) features at the intersection of the road and channel. While these could not be identified in the field as the area has been massively altered since the 1960s, fieldwalking close to the point where the two features cross recovered a broken section of a rough cylindrical column, which we interpret as part of a milestone. This suggests that we have evidence on the Corona imagery for both an artificial water channel and a road, presumably that from Emessa to Laodicea-ad-Libanum and onwards to Baalbeck.

66. PHILIP, DONOGHUE, BECK et al. 2002b, p. 116-117, fig. 6; for a more detailed discussion of water management in the area see LAWRENCE, PHILIP, WILKINSON et al. in press.
Agricultural Intensification and the Development of Infrastructure in the Roman period

Taken as whole, the Roman period demonstrates a very major reorientation of the landscape. In addition to the shift in settlement, and the construction of the channel and road noted above, the Roman period witnessed the development of numerous cisterns for onsite water storage, the construction of the dam at Qatina, 67 and the appearance in the landscape for the first time of significant numbers of both stone rotary mills and weights for large oil-presses.

The Roman period also witnessed a degree of intensification of activity in the basalt landscape, 68 thus representing the second such ‘boom’ for the region. As in the Chalcolithic/EB I-III, 69 Roman period developments in the basalt appear to be related to a phase of expanded connectivity with the wider region. 70 Here, the most visible Roman feature is the well-preserved evidence for cadastration. 71 The walls of the latter appear to relate to a number of stone-built villages, suggesting that their development formed part of a Roman-period restructuring of the agricultural landscape. So, while the initial reoccupation of the basalt region in the Hellenistic period might have been initiated by the development of the city of Arethusa/Rastan, and interest in the Orontes as a strategic communications route, we suggest that it may have been subsequently driven by demand for agricultural products by the city of Emessa and the occupants of the Roman military base of Raphanea. The latter was in use during the later 1st-mid-3rd cent. AD 72 and was located only 36 km north-west of Homs, that is less than 20 km distant from many villages in the Homs basalt. The region west of Lake Qatina also demonstrates a marked increase in settlement during the Hellenistic, Roman and Byzantine periods. 73

In light of all these developments, we feel that Abdulkarim and Olesi-Vila 74 are probably correct to ascribe the construction of the dam at the north end Lake Qatina, the major expansion of Homs as an urban centre, and the cadastration discussed above, to a period between late 1st and the end of 2nd cent. BC, although Kamash 75 favours a date in the 3rd cent. AD for construction of the dam. These activities would certainly constitute a logical development of the Roman annexation of the city and region. The changes in settlement seen during the Roman period may be the most visible symptom of a wider reorganization of agricultural production. We might suspect, for example, that the move away from tells would also have involved changes to the system of land-ownership and tenure. Sartre 76 has drawn attention to the existence of imperial estates in Syria, and suggests that we should consider the status of areas such as Emessa, where local dynasties had been suppressed and the lands annexed by the empire. Such a scenario might well have provided the political and economic context for the investment that would have been necessary to support the kind of large-scale infrastructural projects outlined above. Another interesting feature of this period is the presence, for the first time, of clay tiles on the surface of many sites in the southern marls. This surely implies the adoption of new forms of architecture —presumably mudbrick houses with sloping tiled roofs and walls reinforced by timber to support the weight.

We have suggested above that the consolidation of EBA settlement in the Orontes Valley provided a necessary prerequisite for the expansion of activity eastwards into the steppe during EB IV. One might ask, then, whether the intensification of activity around Homs in the early part of the Roman period, and in particular the explicit recognition of the relationship between investment in infrastructure and increased agricultural productivity, did not in some way underpin the massive expansion of settlement

70. Horden & Purcell 2000, p. 5.
75. Kamash 2006, p. 70.
to the east in the Byzantine period that has been identified by the Marges Arides project, and to which, as Geyer has demonstrated, successful water management was essential. In this context the apparent decrease in site numbers between the Roman and Byzantine period and the subsequent increase in the Early Islamic period may reflect the success of expansion to the east (fig. 17, 21-22) during the Byzantine period in particular.

Byzantine and Islamic Period Activity – broad continuity

Depressions do not only plot close to Roman period settlements. They also show a clear association with sites producing Byzantine (fig. 21) and Early through Middle Islamic period material (fig. 23), down to the mid-10th cent. AD at least. In fact, while ceramic roof tiles occur regularly on sites of Roman-Byzantine date, they were also recovered from some sites that produced mainly early Islamic material. For example, a sounding at SHR 477 (Khirbet Hattouni) undertaken by Dr Stephen McPhillips revealed a considerable quantity of roof tile in contexts where the ceramics were predominantly of early Islamic (Umayyad-Abbasid) types. This suggests that buildings with pitched and tiled roofs continued to be used and maintained (and probably constructed) until at least the 10th cent. AD. Of course, there is no reason to believe that all such buildings were constructed in this way. However, this form of roof is not typical of Ottoman period domestic architecture in the region, while the low levels of tile reported from sites where the surface material is predominantly of Ayyubid-Mamluk or later date (e.g. SHR 505, SHR 521), suggests that there was an eventual reversion to mudbrick architecture with flat roofs made of timber and clay.

With a few exceptions, settlement does not appear to have returned to the earlier tell locations, even during the Mamluk period, and there are many elements of continuity in settlement form, location and size, from the Roman period through to the end of the 1st mill. AD. While the situation may have changed somewhat during the Mamluk period, when clay roof tiles appear less common, the evidence suggests that the changes in the rural economy that took place in the Roman period proved highly resilient. We can now begin to see the extent to which the reorganization of settlement during the Roman period set the tone for subsequent developments in rural settlement in the Homs region.

Conclusion

As in the Amuq, settlement in the study area can be divided into three successive phases: an initial period of dispersed settlement, a nucleated landscape of tells, and a landscape of undefended villages. Prior to the 4th mill. BC, settlement was relatively dispersed, although the presence of what appear to have been extensive Neolithic occupations in the basal levels of Tell Nebi Mend, and subsequently at Arjoune, suggest the existence of a regional centre. A number of smaller Neolithic settlements is also documented, some by the presence of limited quantities of Neolithic material at later tell sites. A number of sites that did not develop into tells, and a scatter of material along wadi margins, points to activity dispersed across the landscape.

Settlement increased in intensity during the 4th-early 3rd mill. BC, with virtually all later tells now occupied. However, the nucleated tell landscape appears to crystallize during the EB IV period. It is probably no coincidence that this is the period during which we see the emergence of elite-dominated, state-like polities in western Syria, the prime example being the Kingdom of Ebla. It is not clear at what point tells were first systematically walled, although the EB IV period is an obvious candidate. That said, the first unequivocal evidence for a defensive wall at Tell Nebi Mend dates to the beginning of the MBA.

The marked continuity of settlement on individual tells, the long duration of the tell landscape, the scale of fortification undertaken at what were quite small sites, and the limited evidence for non-tell occupations during the Bronze Age, combine to suggest that from the EB IV period onwards, these sites were intimately connected with control over land and agricultural production. Such control, we argue,
was vested not in the resident communities but distant elites. However, the presence of Neolithic material on many tells suggests to us that, in contrast to the situation in the arid zone where the EB IV witnessed the appearance of many new settlements, emergent elites did not create a new settlement landscape in the agricultural cores, but simply assumed control of, and presumably modified, the existing villages.

The very different histories of sites in the northern and southern marls during the LBA, we attribute to the decline of Qatna on the one hand, and the continuing importance of Kadesh on the other. This points-up the extent to which tell landscapes, as ‘place-markers’ and points of control, could be tied to the fortunes of regional polities. The paucity of LBA material of post 14th cent. bc date from the line of tells along the Orontes north of Homs, may reflect the declining importance of what had once been a major political boundary.

Despite the apparent gap in occupation during Iron I, the pre-existing tells continued to provide the core of the settlement system during the Iron II-III and Hellenistic periods, which testifies to their longevity as symbols that embodied a set of ideas around land and production. That said, the appearance of a small number of new settlements in both periods might suggest a degree of modification of the Bronze Age landholding patterns, perhaps related to changes in regional power structures. The concentration of activity around Laodicea-ad-Libanum during the Late Hellenistic period appears consistent with the strategic importance of the Orontes and Beq’a Valleys, and once again reveals the way in which settlement activity could be significantly influenced by political imperatives.

In contrast to the Amuq, where a major shift in settlement has been identified during the Hellenistic period, in the Homs region, the Roman period witnessed a major reorganization of the landscape. This we suggest began following the annexation of the Kingdom of Emessa to the empire, and was intended to enhance agricultural production, and thus revenues. This involved not just the foundation of a number of new settlements, away from the previous tell locations, but also the construction of a new agricultural infrastructure, including a land cadastration, hydrological systems, and the appearance of donkey mills and large olive presses. The result was to change completely the distribution of population across the landscape. Although individual sites came and went, the overall system of unfortified settlements spread across the landscape, many making use of water cisterns, appears to have continued into the Islamic period. While roof tile may have gone out of regular use by the 9th or 10th cent. ad, the settlement structure of the Ayyubid-Mamluk periods retained many of the characteristic of the pattern of dispersed agricultural communities created under Roman rule.

Finally, the basaltic landscape west of the Orontes appears to have run according a very different temporal rhythm. The two major episodes of settlement expansion, the Chalcolithic-EBA and Roman-Byzantine, we believe, relate to points in time during which when communities in the region were able to engage effectively with larger-scale regional economies. These are separated by periods (MBA, LBA, Iron Age in particular) when activity was at a fairly low level, suggesting that the basaltic region—which was difficult to move around in— was not core to the wider Bronze and Iron Age regional economy. Inasmuch as it did engage with the former, this may have taken the form of the provision of livestock or human labour, rather than a close engagement with the systems of intensive agricultural production and storage that the landscape of tells in the Homs marls appears to represent.

81. Casana 2007, p. 204.