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**BADIA AND MAAMOURA, THE JAWLAN/HAWRAN REGIONS
DURING THE BRONZE AGE: LANDSCAPES AND HYPOTHETICAL TERRITORIES**

*Frank BRAEMER*¹

To Sven Helms

Résumé – 30 ans après l'article de S. Helms "Land behind Damascus: Urbanism during the 4th Millenium in Syria/Palestine.", les dernières prospections et fouilles en Syrie du Sud permettent de proposer une définition des différents terroirs du Jawlan et du Hawran basaltiques jusqu'au massif du Kalamun. Les particularités physiques de chacun de ces terroirs induisent des systèmes adaptés de gestion de l'eau et d'organisation agricole et pastorale. Par ailleurs, une analyse de l'habitat et des échanges d'artefacts permet de caractériser des « territoires archéologiques » ou « entités culturelles ». Les changements intervenant au cours des IV^e et III^e millénaires sont mis en relief et un cadre « historique » est proposé.

Abstract – 30 years after S. Helms's paper "Land behind Damascus: Urbanism during the 4th Millenium in Syria/Palestine.", new fields works and surveys allow the definition of specific landscapes (from the basaltic Hawran and Jawlan to the Kalamun mountains) in which the physical setting induces particular systems of water management and agricultural or pastoral organization. On one another hand, an analysis of architectural techniques and forms, pottery exchanges, lithics, defines "archaeological territories" or "cultural entities". The topic of people mobility between territories is central. Changes which occurred during the Bronze Age are pointed out, and a historical frame for the 4th and the 3rd millennia proposed.

خلاصة – تسمح لنا عمليات المسح الأخيرة والحفريات في جنوب سوريا باقتراح تعريف لمختلف الأراضي البزلتية في الجولان و حوران حتى جبل القلمون وذلك بعد 30 سنة من صدور مقالة س. هلمز «ما وراء دمشق: التحضر خلال الألفية الرابعة في سوريا وفلسطين» وتتطلب الخاصيات المادية لهذه الأراضي نظاما مناسباً لإدارة المياه والتنظيم الزراعي وتربية المواشي. ومن جهة أخرى فإن دراسة اماكن السكن وتبادل الأدوات يسمح بتحديد «الأراضي الأثرية» او «الكيانات الثقافية» كما تبين أهمية التحولات التي جرت خلال الألفية الرابعة والثالثة وتفتح اطاراً تاريخياً.

INTRODUCTION

30 years ago, S. Helms² proposed a scenario for the territorial organisation of the "Land behind Damascus" during the 4th millennium BC. New data from recent fieldworks and surveys permit us to revise the meaning of "territories" in these specific landscapes. When dealing with the concept of territories and landscapes in the South East Levant between the 4th and 2nd millennia BC, we are faced with crucial questions such as: which models of territorial organization can we use? And what are appropriate

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2. HELMS 1984a, 1987b. I dedicate this paper to Sven Helms who was for a part at the origin of my projects in the Black Desert. He always stimulated friendly vivid and generous exchanges of ideas and data about Jawa and Khirbet al-Umbashi.

geographic scales of observation and how do these change through the periods? Obviously, the trends in settlement patterns can differ from one landscape area to another. The Decapolis database distributes site records within twenty regions³ in accordance with topography and climate. Getzov, Paz & Gophna⁴ described four regions for the southwest Levant in accordance with specific variations in settlement pattern. G. Philip⁵ emphasized the fact that the settlement patterns and organization of the landscapes in Jordan are not only different according to climatic zonation (fertile/arid) but are also variable on a micro-regional scale. He interprets this fact as the effect of regional specialization (economic? of production?) in a broader context of interregional economic integration. So the geographical unit to consider is primarily the micro-region⁶. The study of the Lake Huleh micro-region⁷ is one of the best illustrations of the relevance of this geographic scale for building a new historical narrative. Consequently, we are obliged to disregard the idea that all of the Levant's micro-regional history follows the same rhythm and the same change. It is therefore necessary to look at settlement in the context of micro-regionality (from the community-land to the landscape) and to propose models that implement an enlarged number of factors of diversity, rather than implementing ready-made simplistic models that are not adapted to the region. In fact, the main simplistic model used is the urban one. The debate surrounding the concept of urbanism is losing its conceptual significance because the term "urban" is always associated with "civilisation" and "social complexity", which are ideologically overestimated as indicators of social evolution⁸. The meaning of terms such as 'urban' or 'city' which "refer to sites whose area is 30 dunams or more, or to sites where there is a reasonably high assumption that they were fortified (even if their area is smaller than 30 dunams)"⁹ is thus lost in their overuse. The archaeological proxy-data for the identification of urban sites remain primarily size and rampart¹⁰. This approach puts an emphasis on the binary contrast between urban and rural systems identified using uncertain field data¹¹.

Social complexity does not only pertain to hierarchy and functional specialisation of individuals and groups. The concepts of middle range society and heterarchy applied to the southern Levant, bring to light new aspects of the societies which operated in different spheres from most urbanised groups¹².

Using this approach, we can propose a model for the Jawlan-Hawran area in which ruralism is at the root of social and economic organisation, within the frame of the "little tradition of the Southern Levant"¹³. During the EBA, the developed urban system is secondary, existing only during short periods or in restricted areas. The rural system is far from being homogeneous and static. The village is the main category of settlement. There is a large range of types of village agglomerations, whose plans correspond to different social organisations. The rural system includes populations living with different degrees of mobility. This model follows the idea that during the EBA mobile groups were able to occupy built settlements and were able to develop strong links with rural systems similarly to systems which link nomads and cities in more recent times¹⁴. In fact, this model circumvents provisionally the debate concerning urbanism versus rural life during the EBA by enlarging the range of agglomeration categories¹⁵. The agricultural landscape around the village—Arabic "maamura"—is shaped throughout the region during this period, with the development of a new scale of hydraulic works and agricultural field setting. The pastoral landscape—Arabic "badiya"—is also changing at this time. The variability in

3. JOFFE 1993, p. 7.

4. GETZOV, PAZ & GOPHNA 2001.

5. PHILIP 2001, p. 196

6. MARFOE 1979.

7. GREENBERG 2002.

8. HALPERN 2000, p. 336-337, SCHAUB & CHESSON 2007, SAVAGE, FALCONER & HARRISON 2007.

9. GETZOV, PAZ & GOPHNA 2001, p. 50, see also PAZ 2002.

10. PELTENBURG 2007, p. 16; WILKINSON *et al.* 2007.

11. GREENBERG 2003, p. 27-28 for an overview of the debate.

12. PHILIP 2001, p. 166.

13. LABIANCA & WITZEL 2007.

14. ROWTON 1973, MARX 2007, PORTER 2004.

15. BRAEMER, NICOLLE & CRIAUD 2010.

the organisation of groups and households and in the shaping of both landscapes within a heterarchical system is also a good indication of social complexity, even in so-called ‘egalitarian’ societies¹⁶.

The Hawran area data enables us to illustrate a range of hypothetical situations that are less visible elsewhere. The frequent absence of post depositional sedimentation, regular settlement relocation and the use of basalt stone in the masonry of structures produce a distinctive site taphonomy in the Hawran area. In consequence, we are able to map complete settlement agglomerations without excavation. Regional assimilation and interaction between sites can thus be better estimated¹⁷. These data allow us to propose a range of interpretations that transcend dated models.

In this paper, we characterise the important differences in settlement pattern from the EBA Ia to the MBA II, at the regional level. These show a high variability and change in trends from a collection of settlement clusters to an occupation system covering the whole area.

A mapping and a spatial analysis of the diffusion of architectural techniques and forms, pottery exchange and lithics define “catchment areas”, “archaeological territories” or “cultural spatial entities”. Then the settlement clusters can be integrated in different frames. Thus we are not able to define any correspondence between these territories or entities and a specific political organisation or system¹⁸. In this case, I suggest some correspondence with socio-economic systems. Changes that occurred during the Bronze Age will be demonstrated, and a historical time frame will be proposed.

THE COUNTRY

To the south of the Damascus Plain and Mount Hermon, the Hawran and Jawlan form a geographical unit delimited by basalt flows. This area also comprises the main part of the upper drainage basin of the Jordan River and the Dead Sea. If we place these areas in the middle of the map, ignoring the modern political borders, we change the usual geographical “palestino centred” perspective used in the study of settlement systems in the Southern Levant. This perspective too often leads to the consideration of the West bank as an “island” or a core area with a periphery. Actual data indicate clearly that the Southern Syria and Jordan plateau are essential *components* of the South Levant EBA culture. From a West-East perspective, stretching from the Jordan River to the Eastern Desert, we can observe the presence of human settlements. These settlements follow a transect from the Mediterranean climatic zone to the arid zone and from the Jordan plateau to south central Syria. This transect covers the dry farming sectors, the Arabic “maamoura”, and the areas dedicated to pastoral movement, the “badia”, but with all the nuances of transition and continuum between these two modes of production¹⁹.

The presence of Jebel Al-Arab enlarges the area of transition towards the arid zones. In this area, we have a better view of the transitional climatic zone, which is also under the influence of strong climatic variability. It is therefore an ideal position to observe the kind of climatic variability which may have led to intermediate states between the permanent settlement and total mobility of populations. By associating regional climatic variability to topography, soils and pedology, we can identify a dozen micro-regions in the basaltic area. The physiographical diversity of the micro-regions supports the perception that particular cases were more or less strongly influenced by climatic and pedologic conditions (**fig. 1**).

There has been a recent intensification of the archaeological surveys carried out throughout the area within the last century (**fig. 2**).

The totality of these surveys has produced a repository of knowledge on human settlements in these regions. However, the Eastern Jawlan, which makes up a large area in the centre of the region, remains badly documented. Using satellite imagery, we have identified more than 20 large tells (>2.5 ha) but they are still unsurveyed and undated. In the western Jawlan, the Leja and the southern plain of Damascus,

16. FRANGIPANE 2007.

17. GREENBERG 2003, p. 28.

18. SAVAGE, FALCONER & HARRISON 2007.

19. MARX 1992.

detailed excavations will soon enable us to refine the chronological and cultural makeup of this geographical unit²⁰.

We are aware of the drawbacks of survey data. We must therefore stress the ambiguity of the spatial and temporal data of our maps. This prevents us from asserting with certainty what is contemporary and what is distinct in time, and from discerning the duration of settlements.

In addition, we have difficulties in integrating new climatic data from studies of the Dead Sea and the Jawlan, into our model. The Hawran and Jawlan form the major part of the Jordan River catchment area. The variations in Dead Sea levels are thus a direct result of rains in these catchment areas. The “abrupt dry events” detected around 3200 and 2200 BC, and the alternance of wet and dry short periods during the 3rd millennium BC²¹ certainly affected the Jawlan and Hawran areas. The impact on vegetation seems to be rather slow in the Jawlan and difficult to identify in the arid Kh. al-Umbashi area²². Today, we can only have an idea of the spatial impact of these variations by observing the zone drawn by the isohyets of the 200 mm annual rains during 20th c. humid and dry periods²³. The 200 mm isohyet line can move East-West along more than 30 km. Human impact from agricultural and herding activities certainly increased the effects of climatic variations. J. Sapin²⁴ has identified a drastic reduction of the Ajlun forest that probably occurred during the 4th millennium BC. It is likely that the recession of the Ajlun forest was not entirely due to the effects of pastoral activity, but

20. Forthcoming publication of Lawiyeh by I. Paz, new excavations at Qarassa (BRAEMER *et al.* 2008, and this volume), and Tulul al-Far (CLUZAN & TARAQJI 2009).

21. MIGOWSKI *et al.* 2006, p. 427; ROSEN 2007, p. 98.

22. NEUMANN *et al.* 2007; BRAEMER, ÉCHALLIER & TARAQJI 2004, p. 245.

23. HELMS 1987b, p. 50; SANLAVILLE 2000, p. 105-108.

24. SAPIN 1992.

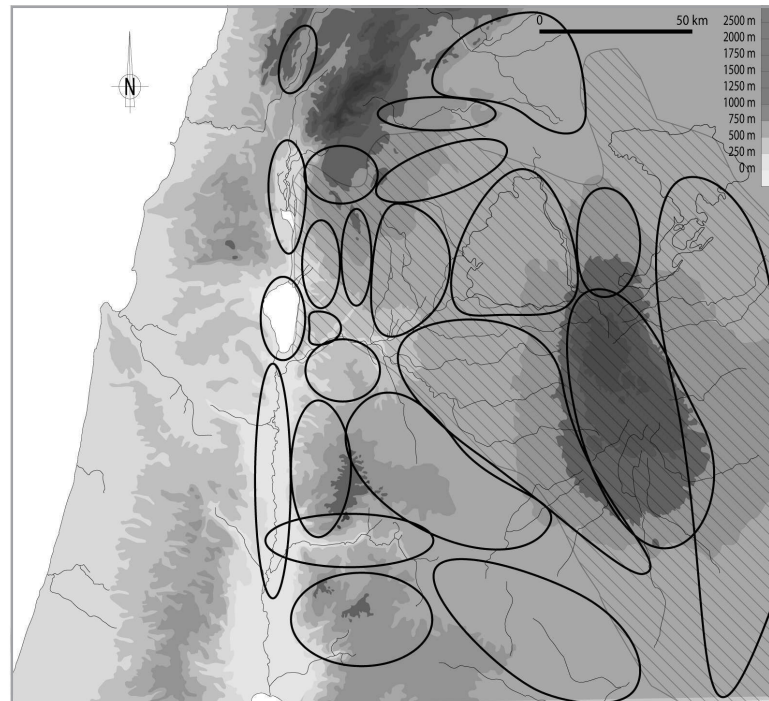


Figure 1. Micro regions between the Damascus plain and the Wadi Zarqa valley.

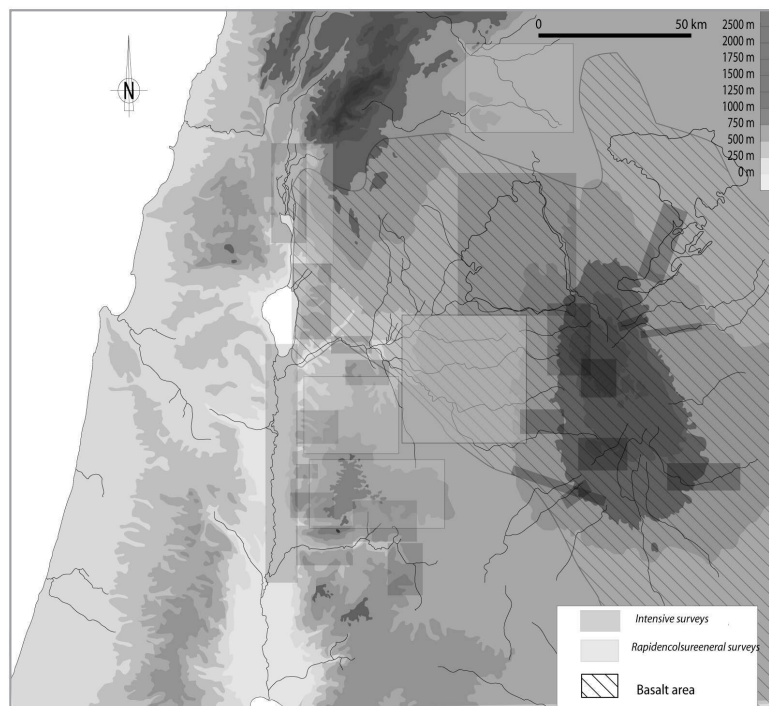


Figure 2. Map of areas surveyed.

that it is also linked to the dry event signalled in 3200 BC. Given the precision of the climatic data available to us, it becomes quite obvious that our surveys are less precise than the dating of the climatic phases. This fact alone makes it very difficult to interpret the effects of the dry events on the settlement system.

Nevertheless, by tying in the results of recent intensive surveys of Lake Huleh, the Western Jawlan, Leja and the Kraa areas, with those of previous less detailed surveys, we can reasonably propose a general frame and a hypothesis about settlement systems during the Bronze Age period. This picture can also be extended to the region between Yarmouk and Wadi Zarqa²⁵, which appears to share many common features with our basaltic study area.

Settlement clusters

At a regional level, our survey data has demonstrated a long term change in settlement pattern from a collection of clusters during the EBA Ia to EBA IV to an occupation system covering the whole area during the MB. During the first half of the 2nd millennium BC, settlements were spatially continuous, throughout the region.

Conversely, during the 4th and 3rd millennia BC, dwellings were concentrated into separate clusters. In this area, the physical setting induces particular systems of water management and agricultural or pastoral organization. The clusters are defined through an analysis of field data in relation to the landscape—and not only through a mathematical spatial analysis²⁶. Hierarchical models, such as the central places theory²⁷, are therefore incompatible with our spatially extensive and diachronic studies for this period.

If clusters of sites are unconnected during the 4th and the 3rd millennia BC, we must evaluate to what extent those territorial gaps were occupied by mobile populations²⁸.

The campsites at Kh. al-Umbashi and elsewhere²⁹ attest to the presence of nomadic populations from the Neolithic period and during the 4th/3rd millennia BC. In addition, the existence of a significant number of large corrals is strong evidence for the existence of mobile pastoralist populations in the Ajlun and the Eastern Hawran regions³⁰.

Each cluster type documented demonstrates variations in settlement pattern (fig. 3):

– scatter of undifferentiated small sites, may be large clusters of low density scattered houses in Moumassakhin (11 x 1 km) or around the Leja west of Mtune (5 x 1 km) (fig. 3.1);

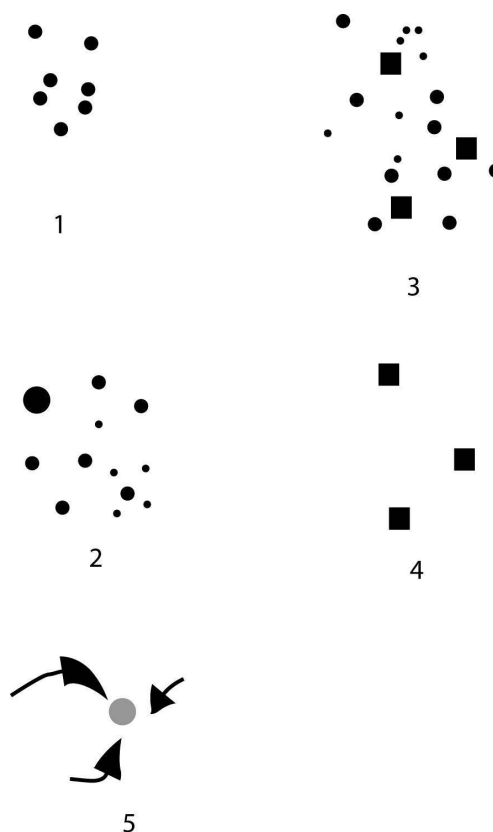


Figure 3. Main types of patterns in settlement clusters: 1) scatter of undifferentiated small sites; 2) dispersal of villages of different sizes and of differing spatial organisation over a limited surface; 3) rank size organisation with two or three hierarchical levels, centred on one major site (square dot); 4) fortified major towns without secondary peripheral sites; 5) Gateway agglomerations located between the stepic and hyper arid regions.

25. SAVAGE, FALCONER & HARRISON 2007, KAFAFI, this volume.

26. *Ibid.*

27. PHILIP 2001, p. 165, JOFFE 1993, p.73, GOPHNA 1995.

28. Cf. discussion by PHILIP 2001, p. 191-192 about the EBA II Ajlun zone.

29. BETTS 1992b, BRAEMER, ÉCHALLIER & TARAQJI 2004, p. 263-271; HENRY 1995, GARRARD 1989, ABU AZIZEH this volume.

30. BRAEMER & SAPIN 2001.

- dispersal of villages of different sizes and of differing spatial organisation over a limited surface (120 ha at MBA Masajj, 5 km² in Chalcolithic Jawlan) (**fig. 3.2**);
 - dispersal of walled agglomerations of equivalent size and of similar spatial organisation over a limited surface (25 km² in Jawlan EBA, Paz pers. com.);
 - rank size organisation with two or three hierarchical levels, centred on one major site —urban in its organisation, or fortified citadel— with peripheral associated villages or farms (EBA II Huleh area, EBA III Qarassa area, MBA Leja) (**fig. 3.3**);
 - fortified major towns without secondary peripheral sites (Hazor, Dan, Kh. Zeraqun, Labwe, Handaqq S, Shuna, Kh. Batrawy during the EBA II-III) often interpreted as a sign of the regrouping of the totality of the population within an urban enclosure. The common absence of extended agricultural lands along the peripheries of these cities (as it is the case of Labwe, or Jawa) is problematic as it does not account for the supply needed to sustain the populations (**fig. 3.4**);
 - gateway agglomerations located between the stepic and hyper arid regions, which may have been ideal crossroads between groups belonging to different socio-economic systems (Jawa, Kh. al-Umbashi, Kh. Dhabab) (**fig. 3.5**);
 - monumental centres (Rogem Hiri, Kh. al-Umbashi?);
- At a local level, the structuring of the agglomeration can be defined by few main models.

Agglomerations without internal hierarchy between houses (fig. 4)

– house complexes in more or less dense villages illustrate a large range of sizes from hamlets of 0.2 ha at Rahil (Leja) to 90 ha at Sharaya (Leja). They number from 3 to more than 400 houses per site during the Chalcolithic period in Jawlan, the EBA Ia (Sharaya, but also Shuna North, Tell Umm Hamad) the EBA III/IV in Umbashi or Zawk, and the BA IV in Moumassakhin or Marajim. The houses are single architectural units or composite compounds;

– open built-up areas with single unit or compound houses;

– enclosed agglomerations with compound houses: the structures of the village are dictated by the linear, honeycomb or agglutinate patterns found in the spatial organisation of the houses. This structure is not dependant from the wall ;

– enclosed agglomerations with single unit houses: generally the wall is a strong structuring element in the layout of the houses.

*Empty walled sites, likely associated with camp style agglomerations (Kh. al-Umbashi, Ajlun and Jawlan enclosures)*³¹

Agglomerations with an internal hierarchy of houses and monumental buildings (fig. 5)

– open agglomerations with one better built dwelling, a street structuring a minor part of the village and a monumental tomb (Kh. Dhabab) ;

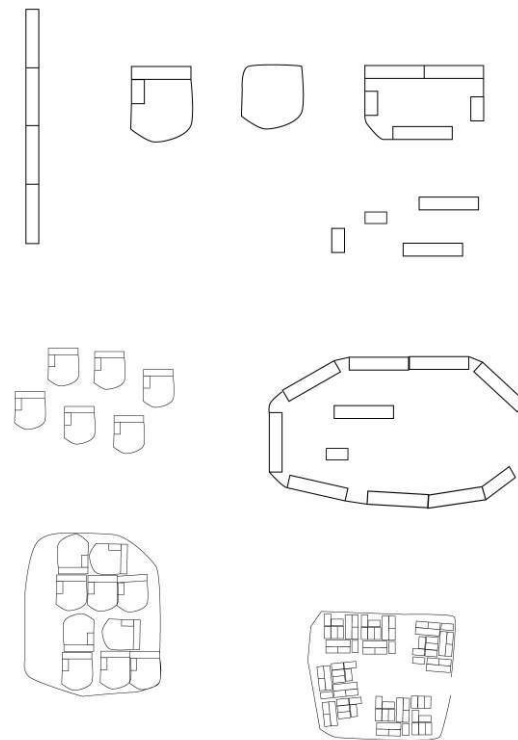


Figure 4. Structures of houses and agglomerations without internal hierarchy.

31. BRAEMER & SAPIN 2001.

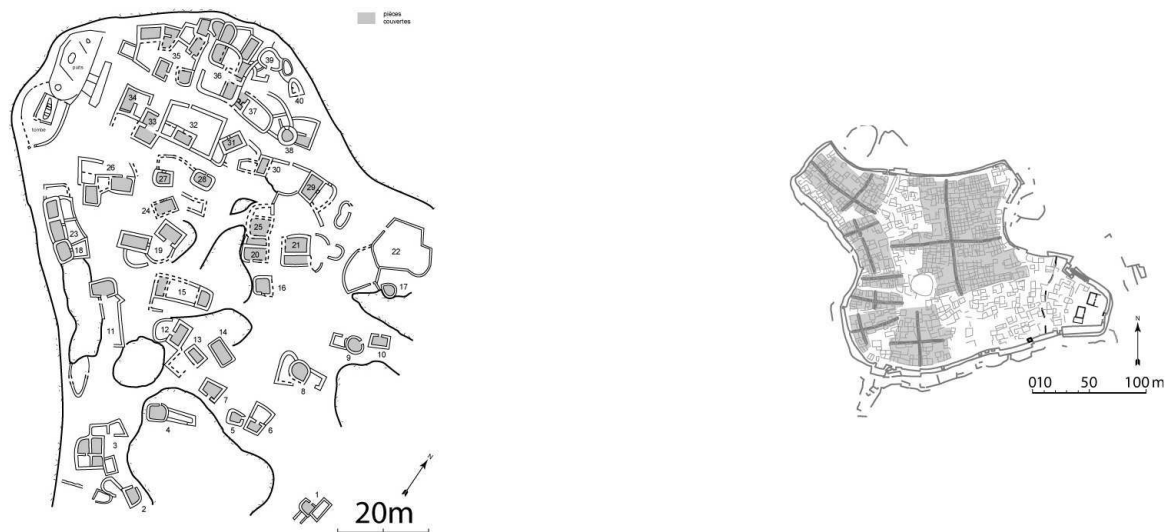


Figure 5. Plans of agglomerations with internal hierarchy.

– walled agglomerations with complex ramparts and gates, water management system, monumental area separate from the dwelling area (Labwe).

It is not the size of the settlement, the number of houses and the existence of a peripheral wall which allows us to identify categories of agglomeration, but rather the hierarchical internal organisation and the presence of monuments attesting a number of specialized functions. The difference between the “horizontal” and the “vertical” types of egalitarian societies³² is the root of the differentiation of agglomeration. It delimits the two main traditions of agglomeration design that coexist from the chalcolithic period until recent times. Only one of these designs, the Labwe, can be called “town” or “city”; it probably originates from the particular structuring of the vertical type of egalitarian societies, and was never the network organising system for the whole region during the EBA.

MOBILITY VERSUS SEDENTISM

Agriculture and pastoralism can be practiced in numerous ways. Commonly, archaeologists and historians overemphasize the contrast between these two modes of production, interpreting them as two behaviours: ‘mobility’ and ‘sedentism’ which are viewed in fundamental opposition to each other. Anthropologists have shown that this opposition is not a general rule, and that we need to consider intermediary situations in which both behaviours exist within the same human group³³. The reason of mobility is not always herding; it can be also agriculture when shifting the place of fields is a method against the soil impoverishment.

Three modes of pastoralist mobility are historically attested in the region, two of which are closely related to agricultural practice.

Two kinds of mobility develop within the transitional steppe area with limited penetration into the adjacent desert area. This includes mobility within an approximate maximum of one-hundred km radius, adapted to the breeding of sheep/goat and cattle and the exploitation of forests and grasslands. This mobility may be a seasonal transhumance between two different landscapes, lowlands and highlands. It is the Bekaa/ Hermon system for the contemporary period, or the Jordan valley /Irbid plateau during the Chalcolithic and the EBA, and the western piedmonts of Jebel al-‘Arab during the EBA IV or MBA

32. FRANGIPANE 2007.

33. MARX 1992.

at Tell Zheir³⁴. The groups move from one village to another and from dominant agricultural activity in the lowlands to dominant pastoralist activity in the highlands. The second system may be characterized by a mobility limited to the exploitation of a specific uniform landscape through the association of extensive agriculture with grazing. One example is the Slut in the Leja who practiced a similar agro-pastoral lifestyle during the 19 and 20th c.³⁵ The groups move from villages to camps, or to small dwellings scattered within a territory. We propose that this type of mobility develops mainly during the Bronze Age period, in the Leja, the basaltic sector of the Jawlan and the southern Eastern Ajlun. As demonstrated by L. Marfoe³⁶ the strength of these two mixed systems, which are able to function with two specialised economic activities (agriculture and herding) in the same group, is its capacity to adapt and to change. In this system, pastoralist mobility is not in opposition to agricultural sedentism. From time to time these groups are able to develop specialised activities such as olive tree farming in the western Jawlan or cattle breeding in the arid eastern slope of the Jebel al-‘Arab during the EB II-III³⁷. In such cases, these specialised groups develop a specific landscaping of a territory including hydraulic systems in arid areas for herds, clearing of forest areas for olive tree cultivation and the manufacturing of containers for trade in olive oil. It is thus possible to associate some types of agglomerations to a specific social organisation with a specific specialisation.

The third kind of mobility develops mainly in the desert area. It is characterised by long distance nomadism. Certain groups from the Roman, Medieval and Modern periods occupied the zone going from the east of the Wadi Sirhan to the eastern piedmont of the Jebel al-‘Arab³⁸. This type of long journey is undoubtedly related to the breeding of camels and *ovicaprids*. During the historical period, there have been variations in the degree of penetration of these mobile groups into the “agricultural” zone or transitional steppe: M. Macdonald’s “safaité” model or the modern Ahl Al Jebal, respect a very clear border along the eastern piedmont of Jebel al-‘Arab. There is also the modern model of the Rwala or Anazeh tribes who penetrated as far as the pastures of Jawlan and the plain of Damascus³⁹ at the beginning of the 20th c.

It is not easy to identify these herdsmen of the desert zones during our periods, but their existence is demonstrated in the Black Desert⁴⁰.

Our data allows us to interpret the sites of Kh. Al Umbashi and Jawa which are located at the edge of the desert area, as meeting points for mobile pastoralist groups. This zone is perhaps also the crossroads of two types of specialized herding. One type of herding is developmental and existed in the transitional zone, while the other is the successor of the Chalcolithic system and existed in the desert zone. The sites also are situated at the easternmost limit of territory frequented by westward migratory groups from the Jordan world, and at the westernmost limit of territory frequented by eastward moving groups. Both are ideal places for competition for water at the limit of the arid zone⁴¹.

Historical frame

Late Chalcolithic period (fig. 6)

Clusters of settlements pertaining to the Late Chalcolithic period appear in the Jordan valley, on the Jawlan, the upper Yarmouk, the north (one site) and south of the Leja and the plain of Damascus (two sites). The groups of western sites each have their own cultural signature (architecture or pottery).

34. MARFOE 1979; DOLLFUS 2001, p. 77; BRAEMER 1991; HELMS 1987a, p. 52; KAFABI 2008.

35. GUÉRIN 1999-2000, 2008, p. 271.

36. MARFOE 1979.

37. VILA in BRAEMER, ÉCHALLIER & TARAQI 2004.

38. “safaites”: MACDONALD 1993; Ahl al-Jebal: LANCASTER & LANCASTER 1993.

39. MUSIL 1928b.

40. BETTS & TARAWNEH 2010; STEIMER-HERBET this volume; NICOLLE this volume.

41. HELMS 1987b, p. 49.

The site of South-West Sharaya is made up of two distinct architectural cultures: that of the “Jawlan house” and that of the Jordan valley grid-buildings⁴². If the northern Leja belongs to the Jawlan/ Huleh pottery complex, then the Damascus area appears to belong to the Ghassulian pottery complex⁴³.

In addition, the area covered by sites belonging to mobile groups (?) attested primarily by the lithic assemblages in the Harra, extends to the central area of the Wadi Zeidi at Taibeh⁴⁴.

In the Eastern Ajlun, several sites made up of clusters of tumuli may have belonged to groups that are associated (through the process of transhumance) with sites in the Jordan valley⁴⁵.

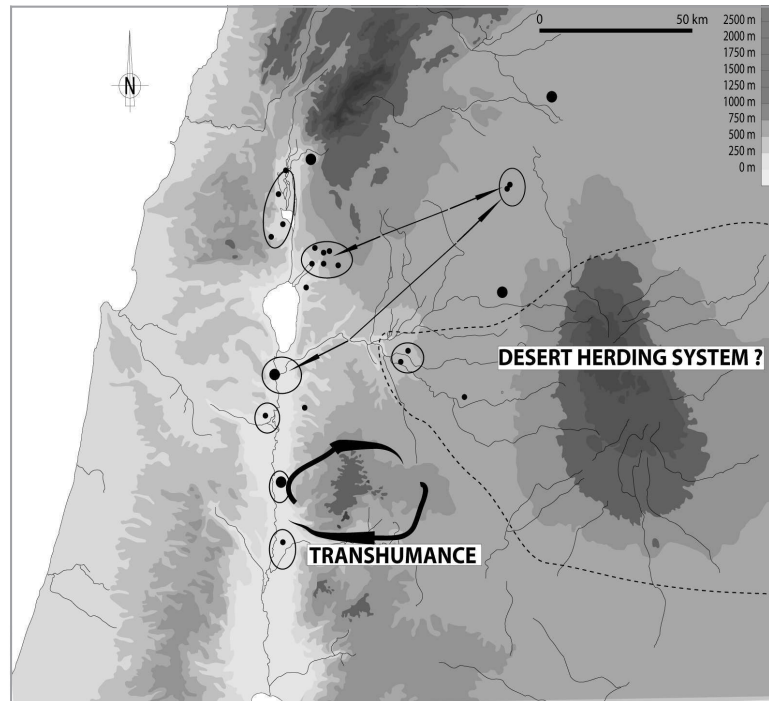


Figure 6. Jawlan-Hawran during the Late Chalcolithic period.

EBA Ia (fig. 7)

In the EBA Ia period, clusters of settlements are defined around the Lake Huleh, to the south of the Lake Tiberiade, at the junction between the Jordan River and the Wadi Zarqa, the region of Jebel Mutawwaq (two sites), of Jawa (one site and a hydraulic system) and in the Leja.

Two distinct architectural cultures coexist: the apsidal or curvilinear houses culture, and the quadrangular house culture. The “Jawa type” pottery (which is foreign to Jawa because it is without basalt inclusion) found at Jebel Mutawwaq and Tell Umm Hamad attests that both cultures are contemporary⁴⁶. Recent excavations at Qarassa (Leja)⁴⁷ showed a strong pottery relationship between the Leja and

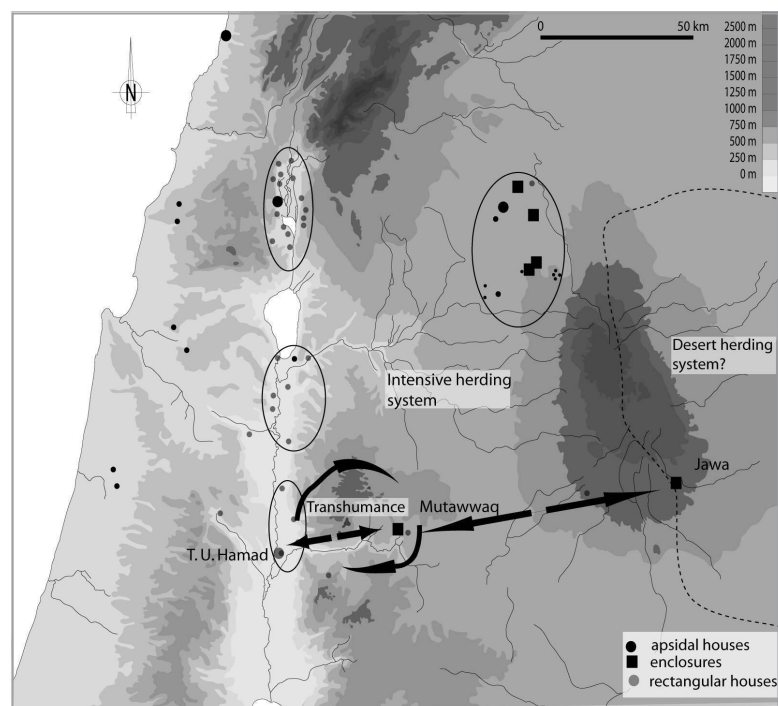


Figure 7. Jawlan-Hawran during the EBA Ia.

42. EPSTEIN 1998.
 43. CONTENSON 1968.
 44. BETTS 1998; CAUVIN 1963.
 45. SAPIN 1992; DOLLFUS 2001; KAFABI 2008.
 46. HELMS 1987b.
 47. BRAEMER *et al.* 2008 and 2011.

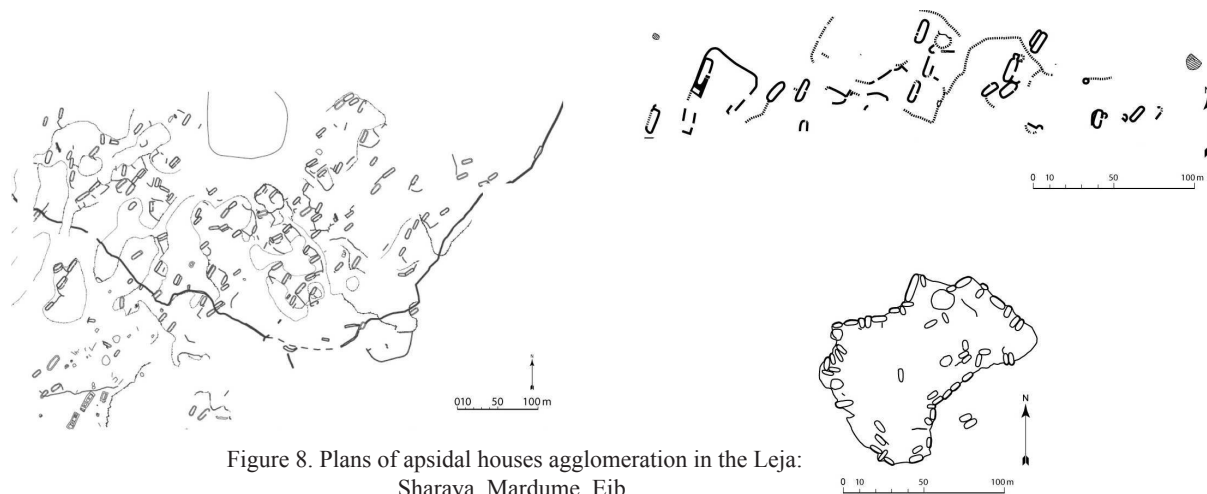


Figure 8. Plans of apsidal houses agglomeration in the Leja: Sharaya, Mardume, Eib.

the Lake Huleh area. The east-west exchanges appear to spread out throughout the area. One hypothesis is that these exchanges were linked to the exchange of wives, rather than solely to trade ⁴⁸.

Two types of houses are present in the Leja, however the settlements with the apsidal houses dominate: it is the greatest concentration of this type of house known in the southern Levant.

The Leja sites illustrate three plans of agglomerations that can reflect different family organisations and economic activities (agriculture or stockbreeding) (**fig. 8**).

In isolated houses, small walled villages or in large open villages, the same curvilinear architecture is in use. At large open or partially enclosed villages like Sharaya, Eib or Kreim on the border of the Leja, there is a compound house system. It may correspond to the gathering of extended families in a predominantly agricultural (cereals, seed) context. The pottery culture of such sites in the Leja appears “local”, which is not the case at other sites like Qarassa or Jawa.

At the sites of Sahr Sud, Mardume, or Zbib, in the Leja, walled villages are planned according to an individual house system. This may correspond to groups of nuclear families in a predominantly stockbreeding context.

If we consider the differences in site organisation (**fig. 9**), we can imagine either a hierarchical system, which included isolated family dwellings, or small walled villages devoted to herding and linked (in case of group segmentation) or under the control of large agricultural villages. If the small

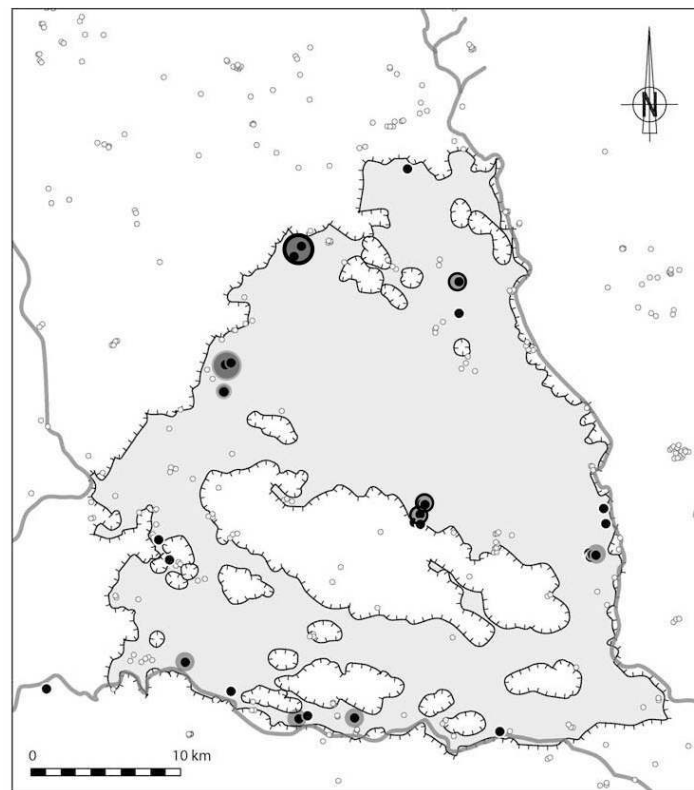


Figure 9. Map of agglomerations in the Leja during the Early Bronze Age Ia. Black dots represent EBAI settlements.

48. NICOLLE & BRAEMER 2001.

walled villages were in fact under the control of the large ones, there is no sign of supremacy visible in the architecture or in the organisation of the large villages.

Another hypothesis is that a development process in the shift from predominant agriculture to predominant stockbreeding can be illustrated through two chronological phases.

The full-urban character of the site of Jawa is questionable due to the site's antiquity. The density of the settlement is probably lower than was hypothesised by S. Helms. The map of the depth of archaeological deposition shows that at least 50 % of the surface is devoid of stone houses⁴⁹. The house shape at the site is curvilinear and close to the well-known apsidal shape. It is possible that a dwelling system related to those illustrated at Sharaya or Jebel Mutawwaq, existed on this site.

Therefore, the uniqueness of the site resides in the design of the ramparts and the hydraulic system, rather than in the domestic architectural styles. There is still no contemporary parallel known throughout the Ancient Near East. The design of the rampart with its gates, finds parallels with one of the temenos of Engeddi. Nevertheless, its large scale is original. The design of the water diversion and storage systems is also innovative. The same concepts and designs are later incorporated at Kh. al-Umbashi.

One hypothesis is that this local invention is found at Jawa due to its particular geographic position as a gateway agglomeration at the extreme eastern extent of steppe pastoralist land. This extent of land was probably occupied by western groups at the expense of herdsmen from the desert arid zone who occupied the western steppe during the former Late Chalcolithic period. The new delimitation of pastures was the result of the competition between a new intensive herding system developed in the steppe and a less productive desert herding system. This frontier area may have acted as an important meeting point between the two categories of herdsmen, perhaps as a festival area and as a storeroom area. At the end of the 4th millennium, Kh. al-Umbashi takes the same strategic gateway role. This melding and/or competition of different groups surely provided the right environment for a cradle of innovations, such as ramparts and water systems, to take root.

EBA IB (fig. 10)

The EBA Ib period witnessed a decrease in village settlement, and a predominance of mobility among groups in all the Jawlan-Hawran-Ajlun area.

A majority of the sites dating to this period are located in the Jordan valley to the south of Lake Tiberiade

This period also witnessed the establishment of Kh. al-Umbashi as a monumental walled centre, which included a large hydraulic system, after the demise of the site of Jawa. Camp structures are likely to have surrounded the monumental centre.

The only other site dating to the EBA Ib period in the Leja is Qarassa, a small open

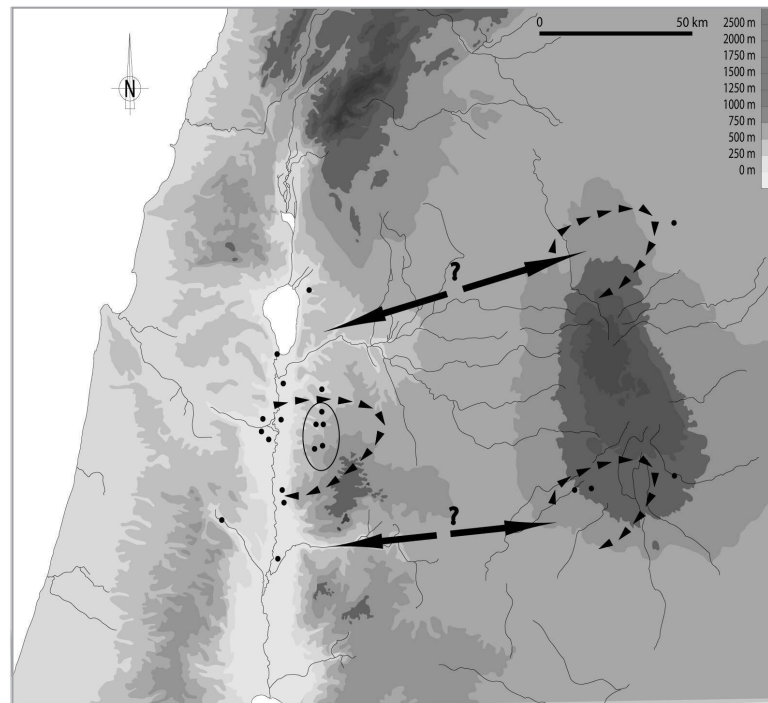


Figure 10. Jawlan-Hawran during the Early Bronze Age Ib. Small arrows represent suggested areas of transhumance, big arrows represent long distance relationships between settlement clusters.

49. HELMS 1981, p. 86; BETTS 1991, fig. 6.

village. According to the pottery assemblages, the connection between these two sites and the Jordan valley is strong from the EB I period. The absence of sites between these two areas poses a problem. It is probable that this area appears empty because it was mainly occupied by mobile herdsman who left very few traces of settlement, or who moved seasonally from hamlet to hamlet.

EBA II (fig. 11)

Sites of the EBA II period are difficult to identify through surface survey due to a lack of recognisable ceramic remains.

During this period the emergence of towns is attested in the Jawlan-Hawran area. The same is true elsewhere in the south-western Levant.

Clusters of sites are located in the Huleh zone with an extension towards the piedmont of Mount Hermon, around the Lake Tiberiade, and in two zones of the Jordan valley to the south. In the Huleh area a three rank-sized hierarchy has been identified, perhaps linked to new arrivals from the North⁵⁰.

In northeast Hawran there is the isolated city of Labwe in the Leja and the village of Kh. Dhabab in the arid zone with monumental or religious centres. The site of Qarassa is also occupied and probably fortified by the end of this period (we know nothing about its internal organisation).

To the southeast we observe a cluster of sites located in the upper part of Wadi Zarqa, on the plateau to the north of the Ajlun hills, and in the upper part of the Wadi Shelaleh. Some of these sites, Kh. al-Batrawy, Kh. Zeraqun, are fortified at the end of the period.

A strong contrast exists between the settlement system of the Jordan Valley (large sites with small associated agglomerations), the clusters of small sites in the Ajlun and the Irbid plateau, and finally the isolated sites of the Leja/Kraa region. This illustrates the continuity of the settlement pattern from EBA Ib to EBA II.

The funerary system shows the increase of mobility (**fig. 12**). Towards the end of the EB II period in the western Jawlan, there is a decline in village life which corresponds to the period of extension of the dolmen funerary system⁵¹ which begins in the EBA Ib. There is also a new development of the *tumulus*/turret tomb system that has its origins in the Late Chalcolithic period.

The new funerary system is an illustration of the competition and the shift in borders that is occurring between high mobile stockbreeding communities of the desert (turret tombs, tail tombs) and the low mobile intensive stockbreeding communities (dolmens). The eastern limit of the dolmen system in the Ajlun hills corresponds to the limit of the forested areas⁵². The same correlation between cultural and

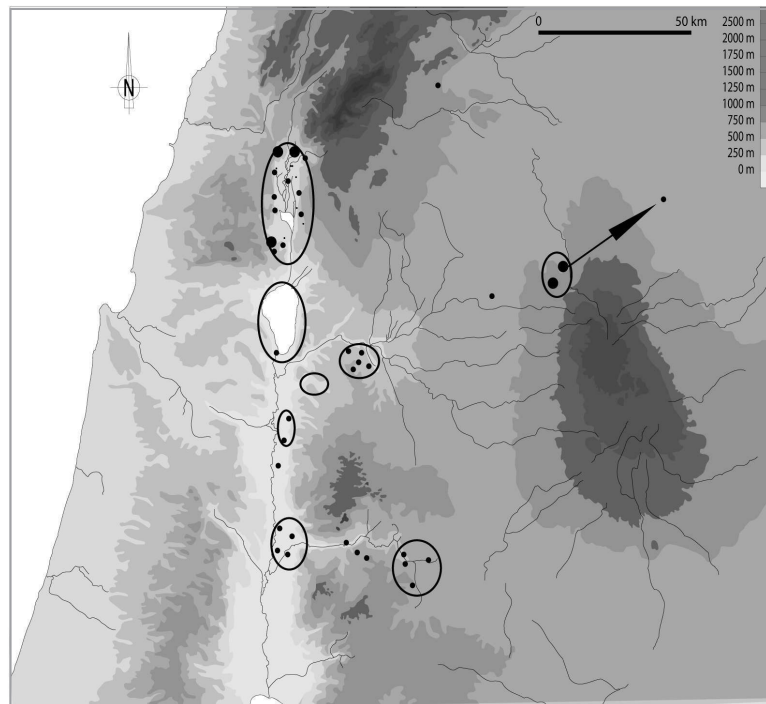


Figure 11. Jawlan-Hawran during the Early Bronze Age II. Arrow represents possible movement of settlement from the Leja area to the desert limit.

50. GREENBERG 2002.

51. GREENBERG 2002, 2003; STEIMER & BRAEMER 1999.

52. SAPIN 1992.

geographic boundaries is possible in the Jawlan area⁵³ and perhaps in the Leja which was also forested.

EBA III (fig. 13)

During this period, concentrations of the population occupy large towns along the Jordan valley and the upper Yarmouk, and middle range walled villages spread out along the plateau.

In the Jordan valley, settlement is composed of large sites and there is an abandonment of small peripheral installations⁵⁴. There may also be the same trend in the upper Yarmouk, in the K. Zeraqun area and in the Western Jawlan. However, in the Leja area, villages spread out and, at the same time, there is an apparent continuity in the occupation of fortified sites built during the end of the EB II period (Labwe). Qarassa in the Leja and Kh. Batrawy⁵⁵ in the upper Zarqa are two new walled sites. We need more excavations to get detailed information about the relative chronology and the internal structure (density of houses, monuments) of all of these walled sites.

To the east, the links between Kh. Al Umbashi, the plain of Damascus (Tulul el-Faar⁵⁶, Hijaneh, and Tell Dulab) and the Leja appear to be continuous.

Most of the walled agglomerations share a common Levantine architectural style in their ramparts (long wall, bastions, square towers, tower gates at Labwe, Kh. Al Umbashi, Kh. Zeraqun) and temples (twin *in antis* sanctuaries at Labwe, Kh. Zeraqun).

During the EBA III, a great number of large corrals occur from the eastern Ajlun to the Jebel al Arab and demonstrate an increase in specialised stockbreeding⁵⁷.

53. NEUMANN *et al.* 2007, p. 338.
 54. GREENBERG 2003, SAVAGE, FALCONER & HARRISON 2007; KAFABI this volume.
 55. BRAEMER *et al.* 2011, NIGRO (éd.) 2006, and this volume.
 56. CLUZAN & TARAQI 2009.
 57. BRAEMER & SAPIN 2001; NICOLLE, STEIMER & HUMBERT 2001; BRAEMER, ÉCHALLIER & TARAQI 2004.

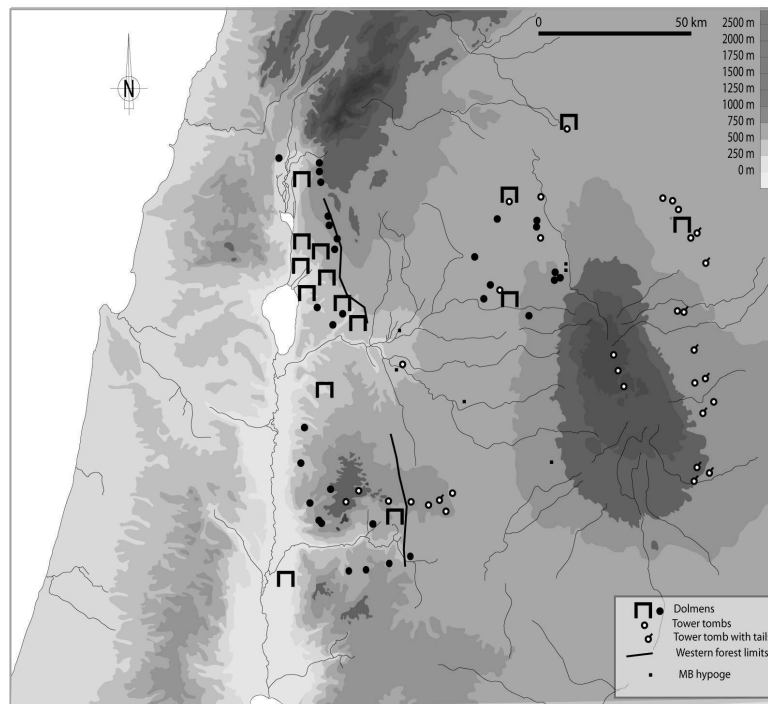


Figure 12. Funerary systems in Jawlan-Hawran during the EBA Ib-II.

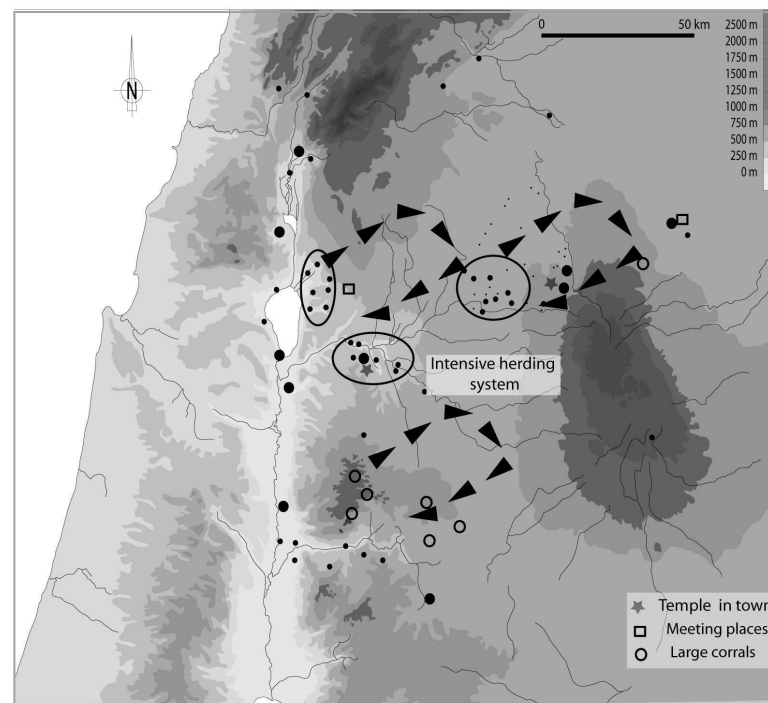


Figure 13. Jawlan-Hawran during the Early Bronze Age II-III. Arrows represent suggested areas of herders' mobility.

The area of distribution of the metallic ware dating from the EBA II/EBaIII extends to the upper Yarmouk valley and the Western Leja⁵⁸. Nevertheless, the dating of this extended distribution is not clearly fixed because we do not yet have the chronological reference of the Kh. Kerak ware in these areas.

EBA IV (fig. 14)

This period is mainly characterised by the spread of settlements, in the form of small sites, over the wider area. Large villages with rectangular houses and corrals that are undoubtedly related to stockbreeding emerge as the new type of settlement. This system extends throughout the eastern extent of the region, from Moumassakhin to Marajim on the wadi Zarqa, and in Jebel al-Arab. It demonstrates a new development of intensive herding. The existence of a walled village at Jebel al-Rahil in the upper Zarqa is unclear⁵⁹.

MBA (fig. 15)

During the MBA I, we observe several parallel settlement systems. There is a continuous settlement system characterised by fortified cities or citadels, associated with minor surrounding settlements. This system stretches throughout the region from the Jordan valley to the eastern slopes of the Jebel al-Arab. For the first time, the Nuqra plain is densely settled along the rivers. The territories are organised into three types.

– Towns or citadels with small isolated farms and agricultural installations built on artificial platforms, in the south east and north of Leja Mleyet Al Atash,

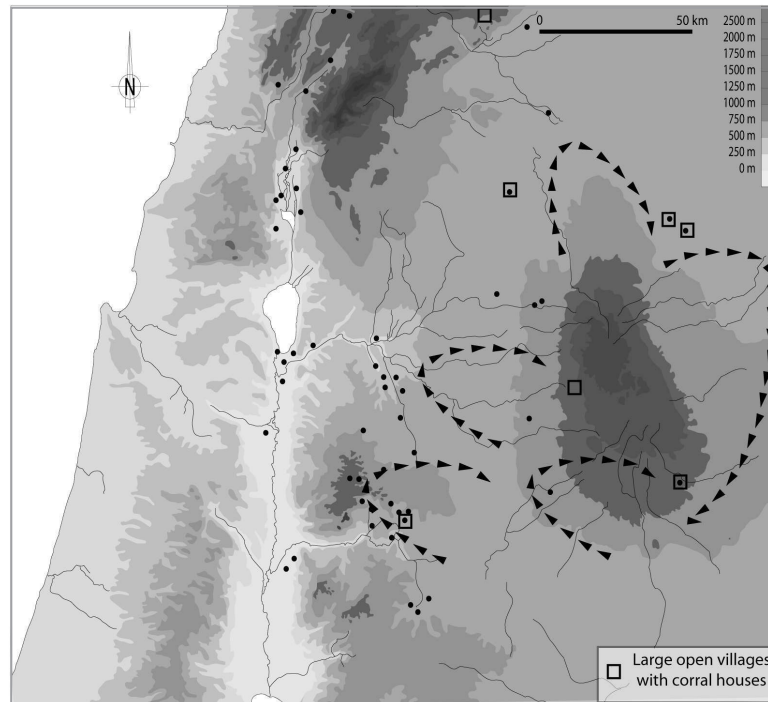


Figure 14. Jawlan-Hawran during the Early Bronze Age IV. Arrows represent suggested areas of herders' mobility connected to large open villages.

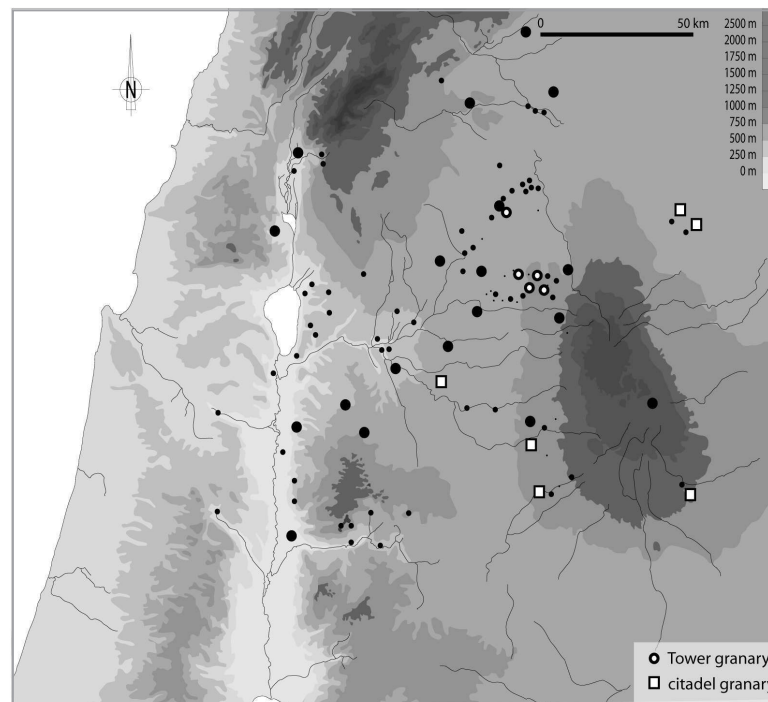


Figure 15. Jawlan-Hawran during the Middle Bronze Age I-II. Map of citadels and granaries among MBA sites (black dots)

58. GREENBERG & PORAT 1996.

59. PALUMBO *et al.* 1996.

K. Rumman, Masajj, or towards the southern Hawran along the wadi al Ajib and around Tell Rukeis ⁶⁰;

- Towns and fortified granaries or tower settlements in the southern Leja region. However, it is unclear if all of the sites are contemporary in this area;

- Towns in connection with villages, sometimes fortified in the southern part of the Nuqra plain: Bosra, Kôm Kudayid, Jize, Taibeh and Rukeis.

This type of settlement system, which includes centre and rural installations, probably develops as a result of the spread of cereal agriculture over very large areas and the introduction of a centralised system of grain storage.

A second settlement system is based on large sites with rectangular houses and corrals that are undoubtedly related to stockbreeding and that are in continuity with the EB IV system of settlement. This system is possibly associated with fortified granaries at the sites of Kh. al-Umbashi, Jawa and Manara on the desert border.

At the end of the MBA IIc period, the presence of very similar underground corral houses in the Kh. al-Umbashi area and on the eastern limit of the Leja is probably witness to the two boundaries of the herders' mobility.

To sum up, previous to the MBA period, the main settlement pattern is characterized by clusters of built up areas, between which mobile pastoral groups moved. During the EBA period, with the exception of the Jordan valley, these clusters were mainly located in regions that opened onto different physiographic zones where it was possible to exploit a variety of economic resources ⁶¹:

- the edges of the plateau in the Jawlan, the plain of Irbid, and the Ajlun hills where tree cultivation and herding were possible;
- the transitional zones of the Leja where small scale cereal agriculture and herding were possible;
- the eastern Hawran at the edge of the stepic zone.

These clustered settlements, which lay on the edge of several micro regions, fall into a proposed model which L. Marfoe ⁶² defines in the Bekaa plain, a multiplicity of contrasted geographical and physiographical micro-regions constrained the social group to experiment with a number of strategies of exploitation and to manage a broad spectrum of activities. These groups have a capacity to shift their strategy from one type of activity to another. Moreover, in the climatic transitional zone, and thus the zone of instability for agricultural economies, the resilience of the group lies in its capacity to change.

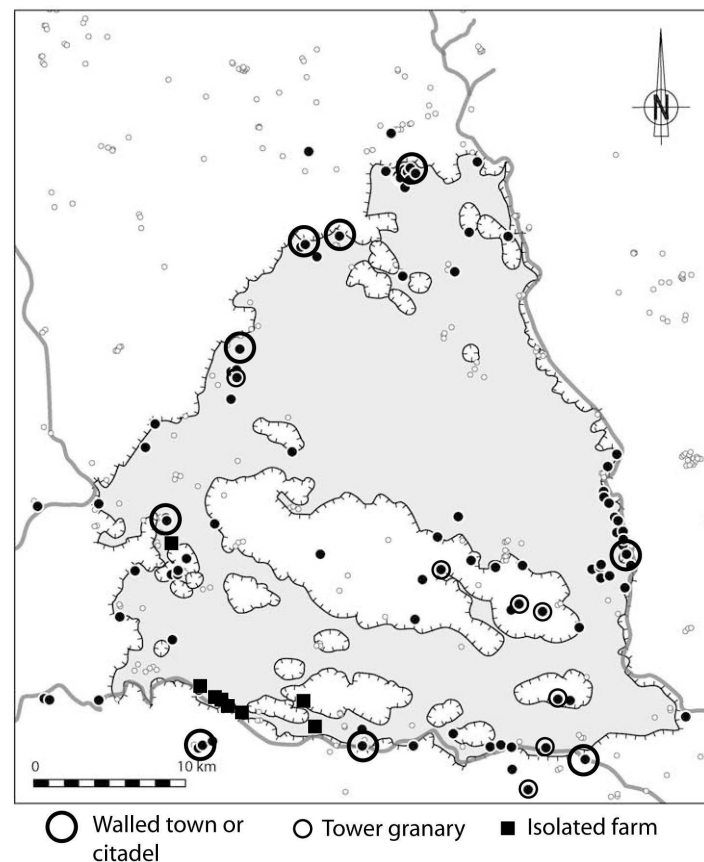


Figure 16. Map of agglomerations in the Leja during the Middle Bronze Age: walled agglomerations, granaries and farms among MBA sites (black dots).

60. BETTS *et al.* 1996.

61. FALL, FALCONER & LINES 2002.

62. MARFOE 1979, 1995.

In these locations, most of the sites appear to be devoted to cattle and sheep/goat breeding which constituted the main economic activity. Specialized sites with corrals of varied shape, and sometimes very large and fortified, have been identified from the eastern Ajlun to the Jebel al-Arab. The sites of Jawa and Kh. al-Umbashi provide evidence of the contact between western herders moving within the grassland areas, and eastern herders moving primarily within the desert region. At these two sites, there are extensive hydraulic systems and monumental ramparts, storage systems, and a monumental building at Kh. al-Umbashi. These two sites can be interpreted in the same way: as meeting places for mobile groups coming from the eastern and western geographical areas. These sites are the only manifestation of pastoral political organization during this period.

Exchange in goods between these groups is evident from the pottery repertoire and fabric, which belong broadly to the Jordanian ceramic tradition during the EBA, and the Central Syrian one during the EBA IV and the MBA. Nevertheless, we must note that some of these eastern groups do not have a ceramic or lithic tradition such as the sites of Kh. al-Umbashi or Tell Zheir⁶³. There are variations from site to site in pottery forms. Therefore, the material culture is not uniform.

The varied types and sizes of villages, buildings, houses and corrals demonstrate a high variability in social or familial organisation.

The territorial models proposed by R. Greenberg⁶⁴ in his study of the Huleh area do not fit with the eastern data because of the discontinuity of settlement coverage. Helms' dynamic models⁶⁵ of the relationship between mobile groups and sedentary groups overestimate the political structuring of a 'kingdom' of Damascus, and the development of urbanism in Hawran and Palestine. The foreign origin of the EBA groups moving alongside the 'paleo-bedouin' in the marginal arid area is not confirmed by ceramics and artefacts. On the contrary, the data of Kh. Al-Umbashi and of the Leja demonstrate a more regional movement than an 'international' one.

Throughout the basaltic region during the Early Bronze Age, the clusters of settlements seem to be organised in a system of heterarchical networks as described for northern Jordan⁶⁶. The spatial distribution of the urban major sites during the EBA II-III in this region does not insinuate core areas with central places that organised large territories⁶⁷. Even if new major sites are identified in the future, for example in the eastern Jawlan and in the Damascus plain, the 'non-urban' systems predominate. The more complex model of agglomerations is more appropriately justified given the known data⁶⁸. The network of communication and exchange between clusters needs an in-depth study of artefacts throughout the region. A dendritic market network⁶⁹ is probably a good model for the diffusion of the EBA metallic ware, but it cannot be applied to the Khirbet Kerak ware⁷⁰. The same type of dendritic model is useful to understanding the managing of animal products (primary or secondary ones) during the same period in Central Syria at Ebla⁷¹, but it does not fit with our southern Levant regional data for pastoral groups. Hierarchical and territorial systems appear only during the Middle Bronze Age.

63. BRAEMER 1991; BRAEMER, ÉCHALLIER & TARAQI 2004.

64. GREENBERG 2002, p. 110.

65. HELMS 1984a, p. 28.

66. PHILIP 2001, p. 167.

67. See discussion of the Kh. Zeiraqun case in KAFABI this volume.

68. NICOLLE 1999.

69. HIRTH 1978, p. 38.

70. GREENBERG & PORAT 1996; PHILIP 1999.

71. ARCHI 1992.