
Not 'Just Another Brick in the Wall?' The Symbolism of Groundstone Tools in Natufian and Early Neolithic Southern Levantine Constructions

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A phenomenon noted in early sedentary and semi-sedentary settlements in the southern Levant is the use of groundstone tools as 'building material' incorporated into structure walls. It is argued in this article that these artefacts should not be perceived merely as construction material, but rather they should be seen as having a symbolic purpose owing to the social and economic significance that groundstone tools acquired during the transition to agriculture and the growing importance of food processing. This assumed symbolic purpose may also originate from ritual contexts in which these artefacts processed foodstuffs and other substances, thereby becoming 'positive' symbols of prosperity and success. Such symbolic content may result from their economic significance interlaced with their association with specific persona and familial and personal heritage. It is suggested that the qualities of the tools lent an element of potency to these artefacts and probably led to their inclusion in structure walls. The linkage between persona, space and positive potency may have granted status or protection to the structures and also may have assisted in marking ownership of the property.

The transition from the nomadic, hunter-gatherer way of life to sedentary village communities during the later parts of the Epipalaeolithic and Early Neolithic manifested itself in the emergence of permanent and semi-permanent habitation sites that created new venues for social and symbolic representation. These are to be found within the built environments of these early villages, which produced the stage for social interaction, providing inherent loci for the development of familial traditions and inherited rights over specific, permanent structures. Settlements characterized by stone-made structures that were used as dwelling places are usually first attributed to the Natufian culture of the southern Levant (Garrod & Bate 1937, pl. III; Hardy-Smith & Edwards 2004; Perrot 1966; Samuelian *et al.* 2006; Weinstein-Evron 2009, fig. 3.9; Weinstein-Evron *et al.* 2007; and see also Boyd 2006). These structures, even those principally for domestic use, were not just 'houses' but also functioned as arenas for social

interaction and cultural consolidation, practically anchoring social relations in the landscape.

The permanent settlements of the later parts of the Epipalaeolithic and Neolithic periods were thus locations for social interactions or 'built environments' that had reciprocal relationships with human society (Banning 2010, 50, 80) and in which cultural traditions were formed and restructured within *bona fide* socially charged 'homes' (e.g. Watkins 1990). In this regard it seems that the standardization of residential architecture which developed over time, specifically during the later parts of the Pre-Pottery Neolithic B, should also, at least in part, relate to increased social control within the community (Banning & Byrd 1987; Byrd 1994; Kuijt 1996, 328) and may indeed have contributed to the formulation of the idea of 'home' (in a sense a *habitus*: e.g. Bourdieu 1977, 89; 1990) as the residence of the family.

One must bear in mind that the functions of at least some of the structures of the Late Epipalaeo-

lithic and Pre-Pottery Neolithic periods are still being debated (see for instance Garfinkel 2006 *contra* Goring-Morris 2000, 113–14), and it is possible that some of these structures acted as loci for storage or for special activities and not merely as residential structures (e.g. Finlayson *et al.* 2011; Goring-Morris & Belfer-Cohen 2003; 2008; Kuijt & Finlayson 2009). It is clear that identifying basic domestic structures in these early settlements can be difficult, bearing in mind the complex variety of functions which are assignable to public structures within sites and the not always linear, straightforward development (e.g. from simple to complex) of domestic architecture (e.g. Byrd 1994; Goring-Morris & Belfer-Cohen 2003; 2008; Kuijt & Goring-Morris 2002). In this respect we must note the presence of exceptional buildings (e.g. the Jericho tower), sometimes reflecting substantial communal architectural endeavours already during the Pre-Pottery Neolithic and that these appear in very different styles with very different ascribed functions (Bar-Yosef 1986; Goring-Morris & Belfer-Cohen 2008, 254; Kuijt & Finlayson 2009; Naveh 2003; Ronen & Adler 2001; and see also Stordeur *et al.* 2000).

Together with the appearance of stone-built structures in the later Epipalaeolithic of the southern Levant, notable changes have been recorded in various realms of the material culture, as well as in other lines of evidence. One of the major changes characteristic of this period was the emergence of an unprecedented large and diverse groundstone tool assemblage, specifically tool types that are linked with food processing and handling (grinding tools, vessels/mortars). The dramatic increase in the production, use and general significance of groundstone tools that goes hand in hand with the development of various stone-built structures and construction, was also often accompanied by their incorporation into structure walls and sometimes even into storage and other installations. This phenomenon, of the 'interment' in walls of groundstone tools, rich socially and symbolically charged items or material symbols (e.g. Hodder 1984) continues to appear throughout the Neolithic, Chalcolithic and Early Bronze Age periods. It is clear, however, that its original social context is deeply rooted in the first transition to sedentism and the establishment of built contexts that were synonymous, at least in part, with nuclear families (Rosenberg 2008).

What could have been the significance of this kind of deposition where groundstone tools were placed, concealed or 'buried' in walls? Were they in fact simply discarded stone used as building material, or was it their association with food processing and preparation, serving or other activities and their link with a specific member of the family or group

that gave them some inherent symbolic and possibly apotropaic content and potency, worthy of 'display' in this manner? This puzzling and most-interesting prehistoric phenomenon has hitherto gone almost unnoticed. The most common point of view for many researchers is that the durability of groundstone tools was the decisive reason for their secondary use within architectural features (e.g. Gopher & Orrelle 1995a, 82). Nonetheless, it seems that other explanatory trajectories are available for interpretation.

The incorporation of groundstone tools (mainly food-processing tools) in walls is also known from the ethnographic record where, as in the archaeological record, these tools are found in both assumed private and public structures, occasionally integrated into potential 'strategic' locations within an architectural feature and in household shrines (e.g. David 1998; Insoll 2006; Schlanger 1991, 463). As food-processing implements and other groundstone tools are likely to have been owned by a specific persona (Rucks 1995, 126, 147) and socially linked to this woman or man (tool = person), they may have been used as social implements in maintaining family cohesion via the inheritance and imprint of elders' tools within the family structure. This may also relate to a common memory, defined in part by the experience of the people inhabiting the structure (e.g. Hodder 1990; Ingold 2000) creating shared concepts of environment and society. This, in fact, could be perceived as part of the same phenomena represented by the under-floor and wall burials (and sometimes dedicatory caching of skulls) known from Pre-Pottery Neolithic sites (e.g. Kuijt 2008; Kuijt & Goring-Morris 2002, and references therein).

One must bear in mind that groundstone tools should, at least in part, be regarded as prestige items and, in many ways, were considered to be highly valued commodities. As such, they were frequently of great economic importance, transporting and conveying significant social information within the society (Kerner 2010, 182). The significance and social value of these tools are perceived here as being directly linked with the social and economic processes which characterize the Natufian culture and the Early Neolithic communities of the southern Levant. These include the transition to a sedentary way of life (however see Boyd 2006), the building of permanent villages and development of agricultural practices, including domestication of plants and animals, and the later move towards a more socially and economically complex society. It is the importance of groundstone tools within these processes that charged these artefacts with symbolic weight as they form an important means of allowing societies in the region to take advantage of their environment

and they are significant instruments for expressing explicit ideas and qualities.

Recently it has been suggested that the placement of artefacts (including groundstone tools) and burials in architectural features at the Pre-Pottery Neolithic B sites of Baja and Basta in southern Jordan was part of an ethological human disposition, that of hiding materials and meanings (Gebel 2002, 119). It has also been suggested that the items carried meanings which it was advisable to keep in the group- or family-controlled sphere (also helping to establish and claim sedentary, spatial, social, ritual and cognitive territories). Similarly it has been claimed that their deposition took place in order to create a location in which to commemorate, manifest or ban influence, ideas or beliefs (Gebel 2002, 128, 131). Gebel (2002) also suggested that the hidden objects used in walls and floors most likely served as a forceful medicine against evil influence (implementing protective technical media as a defence against threatening external forces) and could have been understood as practical instruments to strengthen the wall or the house, even in the metaphorical sense (the family).

Although we cannot, as yet, explicitly negate or prove that groundstone tools found incorporated in architectural features were, in fact, part of a magico-religious system (Gebel 2002; 2010, 65), we should consider that they were perceived as having some apotropaic power. Thus, it seems that placement of items rich in inherited social and economic value were, in fact, another means of protecting the residents of the building from evil forces and unfortunate fates while imparting good qualities. Furthermore, it is feasible that the inherent cultural values, social linkage and economic significance of specific stone items (particularly but not solely food-processing tools) were the main reasons for their position in walls of architectural features. It is thus assumed here that the tools' integral characteristics (e.g. raw material, technological and morphological characteristics, the substance processed by or stored within it) and acquired qualities (e.g. the persona or family it belonged to or the event at which it was used) acted together as factors influencing and leading to the decision to place it in a given wall (broken or still in a usable condition).

These factors were not randomly selected but were chosen as a means of contributing to the prosperity and wellbeing of the household, as well as reflecting ownership rights and strengthening the bond between the residents of the building, the location and their family inheritances. In this way, while one should bear in mind that the materiality of social phenomena must be considered prudently, the

material outcomes of human activities enable others to treat them as indexical and thus extend the activities of some people to those other people (Keane 2010, 213; Latour 2005). Thus, we can treat specific material cultural items not just as preserving and depicting the actions of one person or the 'user', but instead we can consider some items, found in 'secondary use' or secondary context, to be charged with symbolic content which aims to reproduce desired qualities or shared memories of members of the community who had passed away.

The purpose of the present article is to illuminate an intriguing aspect of the contextual study of groundstone tools (see also Adams 2008 for aspects such as discard and deposition), namely the integration, placement or burial of selected tools within walls of architectural features. The model suggested here is that the incorporation of groundstone tools in walls, as part of the structure itself, is not random; instead the tools have been deliberately 'deposited' to impart some of their inherent symbolic value upon the structure and its users and as means of expressing familial cohesion, inheritance and ownership rights. While other tools made of different materials are also sometimes found within walls, the discussion of their meaning in these contexts is beyond the scope of this article. Most importantly, we will argue that food-processing and other groundstone tools have been integrated into architectural features in order to bestow and endorse prosperity and success in production and reproduction on the architectural unit's owners.

The emergence and evolution of groundstone tools in the southern Levant

Although stone implements were probably used for processing (as percussion implements) as early as the Lower Palaeolithic (Goren-Inbar *et al.* 2002), the appearance of groundstone tools in the archaeological record of the southern Levant is commonly attributed to the Middle Palaeolithic and, more specifically, the Upper Palaeolithic (Gilead 1991; 1995, 134–5; Goring-Morris 1980; Marks 1976; Nadel 1996; Piperno *et al.* 2004; Ronen & Vandermeersch 1972; Spivak 2008; Wright 1991; 1994). Flannery (1969, 78) suggested that ochre processing was a prime factor in the development of groundstone technologies, while others suggest that their development proceeded from pounding to grinding, mainly associated with food processing (see Kraybill 1977; Wright 1992; and see recent discussions in de Beaune 2004).

During the early and middle parts of the Epipalaeolithic, the stone assemblages of the Kebaran and Geometric Kebaran cultures — as well as other

contemporaneous cultures inhabiting the arid zones – have an increasing number of groundstone tools, the frequencies and diversity of which sometimes being dependent on the geography and location of the sites (Peterson 1999; 2000; Ronen *et al.* 2003; Wright 1991). Nonetheless, although there is a clear change compared to the Upper Palaeolithic, the frequencies and variation of groundstone tools remain relatively low. These assemblages encompass mainly grinding and pounding tools, including a few mortars/bowls while other types are rare (Bar-Yosef 1975, 368; Goring-Morris 1988; Goring-Morris & Belfer-Cohen 1998; Maher *et al.* 2011; Neeley *et al.* 2000, 267–8, 274; Peterson 1999; 2000; Ronen *et al.* 2003; Rosenberg 2004; Wright 1991).

The first dramatic change in tool frequencies and diversity is observed in the Natufian culture of the later parts of the Epipalaeolithic period, particularly in the Mediterranean eco-zone of the southern Levant (see for instance Bar-Yosef 1980; Belfer-Cohen 1988a; Dubreuil 2004; Hardy-Smith & Edwards 2004; Rosenberg *et al.* 2013; Valla *et al.* 2001; Weinstein-Evron 1998; Weinstein-Evron *et al.* 2007; Wright 1991; 1994). Variability among Natufian sites can be attributed to a number of factors including their geoecological location, their chronological position (e.g. Early *vs* Late/Final Natufian) and their function (e.g. habitation sites *vs* cemeteries or task-specific sites like hunting camps). Early Natufian stone-tool assemblages reflect an increase both in size and diversity, and occur across numerous sites. In particular, it seems that the shift observed in the stone assemblages occurred during the early consolidation stages of the Natufian culture. This phenomenon constitutes an important aspect of the significant social and economic changes which hunter-gatherer groups underwent during this period, moving toward more sedentary life-ways (e.g. Bar-Yosef 1998; Bar-Yosef & Belfer-Cohen 1989; Belfer-Cohen & Bar-Yosef 2000; Goring-Morris *et al.* 2009; Wright 1978).

The most conspicuous artefact type in the Natufian stone assemblage is the pestle, followed by bowls/mortars, grinding stones, grooved items and perforated items, to name just some of the main components. Recently, immovable rock-cut features, dated mainly to the Late Natufian, have attracted scholarly attention as well. These include a variety of installations of different sizes and shapes, located both within and near habitation sites and burial grounds (Eitam 2008; Nadel & Lengyel 2009; Nadel *et al.* 2009a,b; Rosenberg & Nadel 2011). The latter are also frequently found at Harifian sites in the Negev and northern Sinai (Goring-Morris 1987, 316–22, 329, 331; and see Rosenberg & Nadel 2011 for summaries).

The Natufian is also notable for considerable development in the technological apparatus of tool production as well as the diversification of production sequences. Great investments in time and energy in tool production and finish are often observed, with the manufacture of many items being carefully executed, e.g. the presence of perfectly round morphologies (pestles, bowls) and the systematic occurrence of polish as a technological, non-functional characteristic (mainly on pestles). While it is possible that the Natufian sequence saw a growing association of groundstone tools with burials, this still needs verification. Furthermore, some of the Natufian burial sites revealed only limited numbers of portable groundstone tools (Dubreuil & Grosman 2009; Nadel *et al.* 2008; 2009a). While several raw materials were utilized, basalt (frequently compact) is by far the most common (Rosenberg *et al.* 2013 and references therein), and found at sites a long distance from the source (Weinstein-Evron *et al.* 1995; 1999; 2001). Basalt was commonly selected for specific tool types such as pestles, bowls, grinding tools and grooved items (e.g. Belfer-Cohen 1988a; Dubreuil 2004; Rosenberg 2004; Rosenberg *et al.* 2013; Wright 1992; 1994).

The following Pre-Pottery Neolithic period marks some new trends in the groundstone industry. During Pre-Pottery Neolithic A most sites featured groundstone tools (e.g. Dorrell 1983; Garfinkel & Dag 2008; Gopher 1997; Rosenberg 2008; Rosenberg & Gopher 2010; Rosenberg & Nadel 2011; Samzun 1994; Shaffrey 2007; Wright 1992; 1993). Some of these trends become even more noticeable during subsequent periods. Pre-Pottery Neolithic A stone assemblages are dominated by pestles, commonly made of basalt or limestone, which are smaller in size than their Natufian counterparts (Rosenberg 2004). Other features include cupmarks hewn on slabs, boulders and other 'blanks' found mainly indoors (Rosenberg & Nadel 2011), bedrock features (Samzun 1994), deep and shallow bowls and serving dishes mainly made of limestone (Rosenberg 2008), and basalt and limestone celts and grooved items (see Rosenberg & Gopher 2010). It appears that the use of grinding tools for food processing grew in importance during the Pre-Pottery Neolithic period, and indeed during Middle and Late Pre-Pottery Neolithic B and Pre-Pottery Neolithic C (Final Pre-Pottery Neolithic B), grinding became the dominant food-processing technique, while stone pestles and cup-marks disappear almost completely. Other items such as celts, grooved items, weights and flaked discs are found in varying frequencies (Commenge 1997; Dorrell 1983; Gopher & Orrelle 1995a; Lechevallier 1978; Rosenberg 2011; Rosenberg *et al.* 2008; Wright 1993; 2000).

During the Pottery Neolithic period, groundstone assemblages continue to show a predominance of grinding over pounding, and many other components known from the Pre-Pottery Neolithic period are still visible, albeit with some changes in their characteristics. The assemblages vary considerably in size, raw-material selection and typo-morphological characteristics. Interestingly, the appearance of pottery during the Yarmukian culture of the Pottery Neolithic did not have any notable effect on the stone-vessel industry and, as is clearly demonstrated in Sha'ar Hagolan, pottery vessels were seemingly 'added' to the existing material culture systems with no clear influence on the functional or other roles fulfilled by stone vessels (see Rosenberg 2011 and discussions therein). It is worth mentioning that during the Pottery Neolithic/Early Chalcolithic Wadi Rabah culture, notable changes can be seen in certain aspects of the stone assemblages. One such aspect is the production and exchange of basalt bowls including pedestal bowls that are seen in Wadi Rabah assemblages (Rosenberg 2011) and which evolved into the Chalcolithic and Early Bronze Age basalt vessel industry (for the latter see Braun 1990; van den Brink *et al.* 1999; Rosenberg & Golani 2012; Rowan 1998). In this regard the appearance of metallurgy and the advancement of the so-called 'secondary products revolution' (e.g. Sherratt 1981; 1983), seem to have had little influence on the importance of groundstone tools, which also continued to form an important component of archaeological assemblages throughout historic periods (Ebeling 2001; 2002; Ebeling & Rowan 2004).

Groundstone tool symbolism

Groundstone symbolism and attached meanings are difficult subjects to tackle. It is clear, however, that groundstone tools merited symbolic weight and social significance, probably relating to their functional and integral characteristics such as their raw material, the technology of their production, the ability to produce specific and morphological characteristics and, most importantly, their economic significance as food-processing implements, as well as their social role as items used on a daily basis and in significant communal events. Groundstone tools probably also acquired social qualities relating to their owners and/or users and their social role or status in the community, or familial affiliation. Other factors that may have lent a tool specific social or symbolic diminutions could be the temporal and social context in which the tool was produced, used or even discarded. Ethnographic and historic accounts

of the symbolic significance attached to groundstone tools (e.g. Beidelman 1993, 39–40; Fowles 2009, 460; Mithen *et al.* 2006; Pétrequin & Pétrequin 1993, 368) support the notion that these tools were indeed items charged with symbolic content and that within the social boundaries of any given societies the above-mentioned elements may have contributed symbolic meanings attached to groundstone tools and gave them special social significance.

As noted above, it is clear that in the southern Levant groundstone tools developed and gained an ever-growing importance within the framework of the late Epipalaeolithic communities and accumulated further significance for Neolithic village communities. In this social context of early sedentism and incipient agriculture it was suggested that a notable increase in symbolic behaviours reflected, among other factors, the 'scalar stress' deriving from sedentism, with members of larger communities sharing close quarters with one another for extended periods of time (Goring-Morris & Belfer-Cohen 2010; Goring-Morris *et al.* 2009). Furthermore, the changes in the size of architectural features during the course of the Natufian were related not only to profane aspects, but were also imbued with intense symbolic correlates (Goring-Morris & Belfer-Cohen 2008). Natufian symbolic behaviour may therefore be seen in different realms of material culture, clearly reflecting a complex array of social interactions and negotiation of ideas and beliefs. Within these complex, ever-changing social mechanisms, groundstone tools were merely one of the instruments involved in the transmission and coding of communal social data.

Although admittedly elusive, we do have compelling evidence that groundstone tools, particularly food-processing implements like grinding tools, vessels/mortars, pestles and bedrock features, carried strong symbolic associations during the Natufian and even earlier (Dubreuil & Grosman 2009; Nadel & Lengyel 2009; Ronen 2003, 63; Wright 1991, 38), although this symbolic dimension was not necessarily always directly related to significance in daily activities (Dubreuil & Plisson 2010, 57). This can be seen not just in the inclusion of stone items in graves but also, for example, in:

- the human figurine constructed from several stone pestles and pebbles at Natufian Eynan (Perrot 1966, and see Fig. 1)
- the appearance of decorated stone items such as bowls, pestles and other items made of stone (see for instance Belfer-Cohen 1988a, figs. V-1:9, V-6:1–5; Edwards 1991, fig. 6; Noy 1991; Perrot 1966; Rosenberg *et al.* 2013; Valla *et al.* 2001; Weinstein-Evron 1998, 96; Wright 1991; 1992)



Figure 1. *Eynan (Natufian): a human figure made by the arrangement of stone pebbles and tools. (Courtesy of J. Perrot.)*

- the presence of polish in ‘non-active’ parts of the tool (e.g. the body, as opposed to active ends/faces) mainly on pestles (Rosenberg 2004; Rosenberg *et al.* 2013)
- and probably also the adornment of stone tools with ochre (Belfer-Cohen 1988a, 189, fig. V-3; Hardy-Smith & Edward 2004; Weinstein-Evron 1998, 110–11) sometimes noted on ‘non-active’ parts of the processing tools.

Following the Natufian, the Pre-Pottery Neolithic period in the southern Levant seems to reflect a decline in the visibility of symbolic behaviour as mirrored by groundstone tools. However, while fewer items are now ‘decorated’, a small number of examples can be taken as representing symbolic behaviour and a wish to signal coded information sometimes concerning sexual symbolism (e.g. Barkai 2005, 20; Mithen *et al.* 2006). An example of this can be seen in the polished pestles and celts of the Pre-Pottery Neolithic A period (Rosenberg 2004; Rosenberg & Gopher 2010) and the few phallic pestles and decorated vessels found in Neolithic period sites (Mithen *et al.* 2006; Rosenberg 2004; 2011). In addition there are decorated groundstone objects from the northern Levant which are regarded as reflecting profound symbolic elements (e.g. Rosenberg & Red-

ding 2000, fig. 6; Stordeur *et al.* 1996; Yartah 2005). It is highly possible that groundstone tool decoration also attests to their role as status items (e.g. Hayden 2004, 269) signifying social importance.

An important related observation is that the introduction of pottery vessels to the southern Levant during the Yarmukian culture of the Pottery Neolithic period apparently did not have any significant impact on the production of groundstone vessels, as can be seen at Sha‘ar Hagolan (Rosenberg 2011). This new component of the material culture includes highly decorated vessels (which were thus probably symbolically charged), yet groundstone vessels continued to be characterized by the almost complete absence of decoration (the application of colours is so far undocumented). The first change that can be seen in groundstone decoration appears during the Ghassulian culture of the Chalcolithic period (and also, but to lesser extent, during Early Bronze Age I), mainly in the decoration of basalt bowls. In fact, this notable change and the abundance of decorated bowls during the Chalcolithic are unprecedented and clearly represent a significant manifestation of the complex social changes taking place during the transition from the Neolithic to the Chalcolithic.

Symbolic dimensions of groundstone tools can thus vary and be expressed in a number of ways, of which only some are visible to us today. We can conclude, however, that these items were clearly essential for food production as well as other functions, and that they gained symbolic weight through their use-life. These attached meanings can thus be related to the specific or general functions which the tool fulfilled or to its users and/or desired qualities. In turn, we can argue that discard or deposition of objects can be both practical and symbolic, a combination of different elements and ideas that regulated the way in which these items were deposited (Tsoraki 2007, 295). If this is indeed the case, we need to examine the phenomenon of groundstone tools incorporated into walls and allow for other interpretative paths to be taken and considered.

The inclusion of groundstone tools in structure walls

It is well known that in the prehistoric southern Levant deposition of burials and human remains in houses sometimes occurs in architectural features (e.g. under floors, within walls, in post-holes and in basins: Bonogofsky 2003; 2004; Boyd 1995; de Contenson 1969, 27; Garfinkel 1994; Gopher & Orrelle 1995b; Goring-Morris & Belfer Cohen 2008, 254; Kenyon 1957, 60–64; Kuijt 1996; 2001; 2008; Kuijt & Goring-Morris 2002; Milevski *et al.* 2008; Perrot & Ladiray 1988; Valla 1988). Kuijt (1996,

Table 1. Examples of Natufian and Pre-Pottery Neolithic sites in which groundstone tools were incorporated in constructions.

Period/Culture	Tool types	Context	References
<i>Natufian</i>			
Eynan	Mortars and vessels	In walls	Perrot pers. comm.; Valla <i>et al.</i> 2007, 194–8, figs. 25–7
Hayonim Cave	Vessels, boulder mortar, cup-marked slab	In walls	Belfer-Cohen 1988a, 183–5; 1988b, 306
el-Wad Cave	Quern, others?	In walls	Garrod & Bate 1937, 7; Weinstein-Evron 1998, 174
Nahal Oren	Boulder mortar	In walls	Stekelis & Yizraely 1963, 11
Wadi Hammeh 27	Grinding stones and other tools	In walls	Edwards 1991, 129; Hardy-Smith & Edwards 2004, 272, 274
<i>Pre-Pottery Neolithic A</i>			
Netiv Hagdud	Cup-marked boulders, grinding slabs	In walls	Gopher 1997, 162, fig. 3.16; D. Rosenberg pers. observ.
Gilgal I	Various	In walls	Rosenberg & Gopher 2010, 171
'Ain Darat	Not specified	In walls	Gopher 1995
Dhra'	Grinding stones	Support for floor beams	Kuijt & Finlayson 2009, fig. 2
<i>Pre-Pottery Neolithic B/C</i>			
Beidha	Querns, basins	In walls	Kirkbride 1966, 204
Baja	Grinding tools, bowlets	In walls and floors	Gebel 2002, 126, table 2, fig. 13; 2010
Basta	Grinding tools	In walls and floors	Gebel 2002, table 2
Abu Salem	Vessels	In walls	Gopher & Goring-Morris 1998, 7
Yiftahel	Vessels	In walls	Braun 1997, figs. 14:6, 14:9, 14:11
Hagoshrim	Grinding stone and vessels	In walls, floors and installations	Rosenberg 2011; in press
Tel Roim West	Vessels	In walls	Rosenberg 2011, 104

322) suggested that the caching of skulls was a means of recognizing a collective shared past and identity, thereby enhancing protection against social stresses driven by changing economic and subsistence practices.

While burials are a distinct form of deposition that ascribe a set of social meanings to the structure where they were deposited, the inclusion of material culture items in constructions and floors of structures, sometimes in pits, caches and hoards, has also been noted (Bar-Yosef & Gopher 1997, 51; Gebel 2002; Rollefson & Simmons 1985; 1988; and see Barzilai & Goring-Morris 2007, table 1) and probably had similar although not necessarily identical social significance. These have sometimes been interpreted as foundation deposits (de Contenson 1969), ascribed to ritual burial of cultic objects (see Garfinkel 1994) or interpreted as part of the magico-religious world (Gebel 2002). Nonetheless, it is plausible that in many examples material culture items that were placed in walls were ignored during excavations or just defined as intrusions or fills.

It is notable that clear examples of groundstone tools incorporated into structure walls appear during the Natufian culture, in the context of the first built environments of small Natufian encampments in sites such as Eynan (Figs. 2–3), Hayonim Cave, el-Wad, Nahal Oren and Wadi Hammeh 27 (see Table 1 and references therein). These reported examples were primarily broken mortars and vessels. Reported Pre-Pottery Neolithic A examples of groundstone tools



Figure 2. Eynan (Natufian): a basalt bowl set as part of a building wall (note arrow). (Courtesy of J. Perrot.)



Figure 3. *Eynan (Natufian): a basalt bowl set as part of a building wall. (Courtesy of J. Perrot.)*



Figure 4. *Netiv Hagdud (Pre-Pottery Neolithic A): a limestone boulder with a single cupmark in a wall. (After Gopher 1997, fig. 3.16.)*

incorporated into structure walls include sites such as Netiv Hagdud (Figs. 4–5), Gilgal I and ‘Ain Darat (see Table 1 and references therein). These include grinding tools, mortars, pestles and cup-marked boulders, and, while some of these are broken, others appear to be whole or nearly so. Moreover, while some grinding tools were clearly placed facing the inside of the building, others are visible from the outside.

Examples of Pre-Pottery Neolithic B/C sites with groundstone tools incorporated into structure walls have been recorded at sites such as Beidha, Baja (Fig. 6) as well as Basta, Abu Salem, Yiftahel, Hagoshrim (Fig. 7) and Tel Roim West (see Table 1 and references therein). These include various tool types, primarily



Figure 5. *Netiv Hagdud (Pre-Pottery Neolithic A): a limestone lower grinding tool in a wall.*

grinding and pounding tools found either whole or broken but most often the latter. While the evidence for later prehistoric sites is less clear, a few in particular also feature groundstone tools that are incorporated into their architecture (e.g. Braun 1985; Eisenberg *et al.* 2001, 35; Epstein 1984; Garfinkel 1992; Kafafi & Rollefson 1995; Rosenberg 2011, 190, 202, 209; Rosenberg & Garfinkel in press; Rosenberg & Golani 2012; Rowan & Golden 2009, 29; Wright 1992, 96, 136).

These selected examples show that embedding groundstone tools as part of the fabric of architectural features goes hand in hand with the establishment of sedentary communities, the development of settlements based upon stone-built architecture, advances in agricultural practice, domestication, the overall strengthening of the bond between communities and their territory, and the cohesion within family units and their ‘private’ property, the house. However, while we cannot claim that groundstone tools had a similar significance from the Natufian through to the end of the Neolithic, it seems that their growing importance to the economy of the developing agricultural villages ensures the special social significance of these tools.

There are most likely other reported and many more unreported examples of groundstone tools being incorporated into structure walls, but the examples mentioned above are sufficient to illustrate this intriguing phenomenon. This article has focused on tools that were removed from their ordinary functional venue. There may indeed have been groundstone processing tools that would have been used while affixed to architectural features, i.e. within the context of their primary use, but this is beyond the scope of the present article. Here we encounter a phenomenon that can be linked with construction

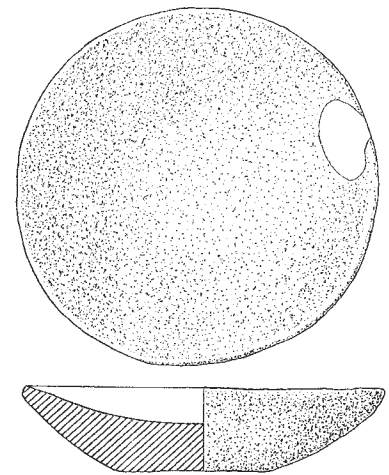


Figure 6. *Baja (Pre-Pottery Neolithic B): a small bowl made of igneous rock in a wall. (After Gebel 2002, fig. 13.)*



Figure 7. *Hagoshrim Layer VI (Pre-Pottery Neolithic C): a basalt lower grinding stone (note arrow) set upside-down in a wall of a building. (Courtesy of N. Getzov.)*

and maintenance, not just of a given building, but also of the family heritage in the sense of ownership over space and the imprint of symbolic qualities and values such as success and prosperity upon the structure and its users. It is not claimed here that every groundstone tool found incorporated into an architectural feature must necessarily have been inserted and 'buried' for its attached social or cultural values.

Discussion

Material culture is in many ways a subjective way of viewing social relations (Hodder 1986, 56–7) and in

this respect the social and symbolic significance of groundstone tools are derivatives of several inter-related aspects. Groundstone tools in general and stone food-processing tools in particular were used for millennia as a means through which communities in the southern Levant manipulated their environment, employing a wide and complex variety of techniques. Their vital role in the conversion of 'natural' resources into 'cultural' substances, manipulated and edible supplies, and their use in shaping other tools or fulfilling other functions, naturally charged them with social and symbolic significance. The symbolic weight and social importance were also interlaced with the

identities of the specific persona that used the tools, with the household that possessed them, and with the structure and its immediate vicinity, where the implements were actually used.

The intrinsic qualities of the tool (e.g. a grinding tool for grinding cereal grains) were probably embedded in some of the tool types, or even in specific tools, and constructed in their cultural meanings. It is probable that this importance may have ultimately led to the incorporation of specific components of the groundstone tools into the walls of structures, probably aimed at imparting desired and valued qualities to the structure and its residents and reflecting ownership and maybe even a spiritual connection with the ancestors. While some groundstone tools may have been inherited and continued to act within the family sphere, others may have been regarded as inalienable objects for some reason, and were thus moved from the functional realm into the symbolic domain.

While we lack coherent and specific data concerning the number of tools incorporated in prehistoric structures in the southern Levant as well as the clear position of these tools, it is assumed here that most of the documented examples are evidently domestic architectural units (however see Finlayson *et al.* 2011; Kuijt & Finlayson 2009). Furthermore, it is argued here that specific groundstone tools gained special significance through their use-life (mainly, but not only, within the familial context), either because they were owned or used by specific persona or because of the social contexts of their attainment or use. The latter include factors such as their use in specific tasks, for certain functions, on special occasions, or even the possibility that they were made in (or for) special circumstances. An item may also gain special significance, for example, because it was made from a specific, valued raw material (basalt?) or from a raw material that was obtained from a culturally important (distant?) source, or because it was used to process specific substances (food or other).

Groundstone tools became an integral part and a conspicuous component of the cultural landscape of stone-built structures characterizing small hamlets as early as the Early Natufian. Their growing economic and social significance in the southern Levant thus seems to have gone hand in hand with the transition to agriculture and to a sedentary way of life, including the wide variety of socioeconomic repercussions that followed from it. In this way it seems that the role of these tools, as a means of environmental exploitation in general, and of food processing in particular, lent them great importance which probably extended well beyond the initial recognition of

their functional advantages. Moreover, several lines of evidence (of which the deposition of stone tools in walls is only one) also suggest more specific social functions. These include their incorporation in burials, their recovery from hoards, their decoration with engravings, and even their adornment with ochre. Thus we may add that the social, economic and intrinsic value of any given tool was no less important than its function or the materials it processed, contained or fashioned. It is even probable that, as a rule, a reciprocal relationship characterized groundstone value (be it economic, symbolic or other) and the social significance correlated with the material it processed, contained or manufactured.

Furthermore, the entire sequence or use-life of any groundstone tool, from its conceptualization (including the definition of its requirements and stylistic preferences), through raw-material acquisition and tool production, to its use, turning it into an integral part of the history of the family, lends the item its own biography (e.g. Kopytoff 1986) and social significance. In such cultural systems the history of the tool will represent, again in a reciprocal manner, the relationship between its biography and its user/owner's personal biography. Hence, the incorporation of symbolically rich and socially charged tools into structures may signify the reflection of some of its qualities (such as in the case of food-processing tools reflecting prosperity in production and reproduction) onto the structures and its residents. Groundstone tools found in secondary use in structure walls, therefore, need not necessarily be considered as discarded tools that were no longer of use or value but rather as items that continued to act, moving from the functional to the symbolic sphere while enriching their context with the virtue of their qualities and signifying the heritage of the family.

The appearance of stone-built architecture (structures, walls and installations) in the southern Levant and the establishment of permanent and semi-permanent settlements marked a change in the lifeways and reciprocal relations between communities and their environment (see for instance Cauvin 2000; Watkins 2004), as well as in the inter- and intra-organization of the social units occupying the area. During the Early Natufian, social interactions and interplay may have dictated that some of the personal belongings of the elders would be given away as they grew old (Byrd & Monahan 1995, 274). By the same token, it is probable that inheritance of similar items was regulated in more than one way during the Natufian and the Early Neolithic. Furthermore, during the Neolithic period there is ample evidence that the emphasis on individual and descent relationships and the growing shift towards food producing seem-

ingly engendered intricate social problems relating to the inheritance of personal belongings (Byrd & Monahan 1995, 278). It is probable that these changes shifted the social focus to rest on the concept of the 'home', and the establishment of the nuclear family unit as the basic social unit within the community (Byrd 2000, 64; Rosenberg 2008). The incorporation of groundstone tools in walls as early as the first appearance of stone-built structures is associated with the early stages of the Natufian culture. Through time, this phenomenon seems to have appeared in an increasing number of structures of Pre-Pottery Neolithic period hamlets and villages, predominantly attributed to farming communities.

The onset of sedentary or semi-sedentary Natufian villages (e.g. Bar-Yosef 1981; Henry 1989; Tchernov 1984) in the Mediterranean climatic zone resulted in new social interactions including the need to legitimize residential rights at base camps (Byrd & Monahan 1995, 282) and, later, in developing villages. Stone structures used for dwellings were to become synonymous with ideas of group identity, family heritage, a home for the nuclear family and the construction of the domestic sphere. In fact, architecture may also have been used as a repository of memories and other kinds of information (Belfer-Cohen & Goring-Morris 2007, 22) in which the construction signified and framed the social borders of this coded familial knowledge. During the Pre-Pottery Neolithic, buildings would become central locations of production and important markers of territory and ownership, processes that are likely to have intensified over time (Rosenberg 2008).

These familial stone-made structures became increasingly significant as arenas for social interaction on different levels and as platforms for 'projecting' certain qualities appreciated by individuals and the communities as a whole. The solid components of a built arena, with its foundations, floors and walls, suggest relative permanence as opposed to the ever-changing social-interaction sphere within the building and, more specifically, its immediate surroundings. This ensured that the qualities, values and any desired traits intertwined with the specific function or history of the embedded groundstone tool would reflect on the building's inhabitants and could support impressions of continuity essential to the construction of status; while they could also contribute to affirming family traditions.

Conclusions

We currently do not have sufficient information regarding groundstone tools 'buried' in structure walls during the period under discussion. Any pal-

pable and significant quantitative data regarding the number of tools (e.g. in a given site or structure), tool types (food processing or other), discard and fragmentation patterns (e.g. whole or broken), spatial location of walls (e.g. north, south, east or west), position in the wall (e.g. in foundation, specific height from the floors, near doorways, in confined spaces), their orientation or other, are beyond our reach as raw data from excavations are rare. Thus, any meaningful comparison of temporal or spatial trends will be based on very weak and incomplete data sets. Hopefully this situation, which precludes a clear and empirical assessment of the data, will change in the future when scholarly attention will be redirected towards a better contextual documentation of groundstone tools.

Bearing the limitation of the data in mind, it is suggested here that we should reconsider the motivations behind this special kind of deliberate deposition of culturally significant groundstone tools which appears to have been aimed at associating certain values with the structure and its occupants. If it was their association with food production that inspired this unusual deposition, then this could have been an affirmation of the connection between family, production, property and ambition, which in the southern Levant should probably first be attributed to the Natufian culture, increasing during later periods and displaying a persistence that survived throughout the Pre-Pottery Neolithic period.

The dramatic increase in the production and use of these tools, from the later parts of the Epipalaeolithic period onwards, clearly goes hand in hand with the development of stone-built structures and with the constant restructuring of the domestic environment. This development in groundstone tool technologies is no doubt part of other advances and changes that characterize various social and economic realms that accompanied the transition to agriculture and a sedentary way of life, and the development of built villages that later led to the appearance of complex societies and the establishment of the first walled towns in the southern Levant. While the scale of this phenomenon is not yet clear, it seems that in terms of relative frequencies only a few groundstone tools in each site were selected to be included in the construction of buildings. Notably, while some of these tools are clearly damaged (we cannot exclude or prove deliberate fragmentation at this stage) others were integrated in walls while apparently still functional.

To sum up, the recycling of groundstone tools in the walls of built structures may sometimes have a 'taphonomic' explanation: not all intrusions of groundstone tools in architectural features must

necessarily represent meanings beyond their mere practical use as raw building material. However, the fact that groundstone tools charged with rich social and symbolic meanings concerning the wellbeing of the structure's residents and their inherited possession of property are found 'buried' in walls of structures should clearly draw our future attention to these tantalizing hints for social interpretation. While the true meaning of this relocation of groundstone artefacts is not always ascertainable, it would appear to be related to changes in the visual display of symbolism and the contexts in which significant social information is embedded.

While archaeologists have often regarded this phenomenon simply as the reuse of tools as building material, it is suggested here that the position and discard of groundstone tools in walls of built structures creates what appears to be an unexpected context, and that we should give some heed to the circumstances that require new explanations. The fact that we first find this phenomenon of incorporating groundstone tools into walls at the same time as the development of the stone-built sphere, might suggest that the desired values reflected by these tools became consolidated and integrated during the early stages of the Natufian culture when stone handling and use (for constructions and tools) gain special and unprecedented significance. These inherent qualities and the growing economic significance of groundstone during the so-called 'Neolithic Revolution', ensured that the custom of incorporating selected groundstone items into structures walls continued to characterize settlements of the Neolithic period, reflecting the long-lasting traditions concerning the functional and social significance of groundstone tools.

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References

- Adams, J.L., 2008. Beyond the broken, in *New Approaches to Old Stones: Recent Studies of Ground Stone Artifacts*, eds. Y.M. Rowan & J.R. Ebeling. (Approaches to Anthropological Archaeology.) London: Equinox, 213–29.
- Banning, E.B., 2010. Houses, households, and changing society in the Late Neolithic and Chalcolithic of the southern Levant. *Paléorient* 36(1), 49–87.
- Banning, E.B. & B.F. Byrd, 1987. Houses and the changing residential unit: domestic architecture at PPNB 'Ain Ghazal, Jordan. *Proceedings of the Prehistoric Society* 53, 309–25.
- Barkai, R., 2005. *Flint and Stone Axes as Cultural Markers: Socio-economic Changes as Reflected in Holocene Flint Tool Industries of the Southern Levant*. (Studies in Early Near Eastern Production, Subsistence and Environment 11.) Berlin: ex oriente.
- Bar-Yosef, O., 1975. The Epi-Palaeolithic in Palestine and Sinai, in *Problems in Prehistory: North Africa and the Levant*, eds. F. Wendorf & A.E. Marks. Dallas (TX): SMU Press, 363–78.
- Bar-Yosef, O., 1980. Prehistory of the Levant. *Annual Review of Anthropology* 9, 101–33.
- Bar-Yosef, O., 1981. The Epipalaeolithic complexes in the southern Levant, in *Préhistoire du Levant: chronologie et organisation de l'espace depuis les origines jusqu'au VI^e millénaire*, vol. 1, eds. J. Cauvin & P. Sanlaville. (Colloques Internationaux du CNRS 598.) Lyon: Maison de l'Orient Méditerranéen, 389–408.
- Bar-Yosef, O., 1986. The walls of Jericho: an alternative interpretation. *Current Anthropology* 27(2), 157–62.
- Bar-Yosef, O., 1998. The Natufian culture in the Levant, threshold to the origins of agriculture. *Evolutionary Anthropology* 6(5), 159–77.
- Bar-Yosef, O. & A. Belfer-Cohen, 1989. The origins of sedentism and farming communities in the Levant. *Journal of World Prehistory* 3(4), 447–98.
- Bar-Yosef, O. & A. Gopher, 1997. The excavations of Netiv Hagdud: stratigraphy and architectural remains, in *An Early Neolithic Village in the Jordan Valley*, part I: *The Archaeology of Netiv Hagdud*, eds. O. Bar-Yosef & A. Gopher. Cambridge (MA): Peabody Museum of Archaeology and Ethnology, Harvard University, 41–69.
- Barzilai, O. & A.N. Goring-Morris, 2007. Bidirectional blade and tool caches and stocks in the PPNB of the southern Levant, in *Systèmes techniques et communautés du Néolithique précéramique au Proche-Orient/Technical Systems and Near Eastern PPN Communities*, eds. L. Astruc, D. Binder & F. Briois. Antibes: Éditions APDCA, 277–94.
- de Beaune, S.A., 2004. The invention of technology: prehistory and cognition. *Current Anthropology* 45(2), 139–62.
- Beidelman, T.O., 1993. *Moral Imagination in Kaguru Modes of Thought*. (African Systems of Thought.) Washington (DC): Smithsonian Institution Press.
- Belfer-Cohen, A., 1988a. The Natufian Settlement at Hayonim Cave: a Hunter-gatherer Band on the Threshold

- of Agriculture. Unpublished PhD dissertation, The Hebrew University of Jerusalem.
- Belfer-Cohen, A., 1988b. Natufian graveyard in Hayonim Cave. *Paléorient* 14(2), 297–308.
- Belfer-Cohen, A. & O. Bar-Yosef, 2000. Early sedentism in the Near East: a bumpy ride to village life, in *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*, ed. I. Kuijt. (Fundamental Issues in Archaeology.) New York (NY): Kluwer Academic, Plenum Publishers, 19–37.
- Belfer-Cohen, A. & A.N. Goring-Morris, 2007. A new look at old assemblages: a cautionary tale, in *Systèmes techniques et communautés du Néolithique précéramique au Proche-Orient/Technical Systems and Near Eastern PPN Communities*, eds. L. Astruc, D. Binder & F. Briois. Antibes: Éditions APDCA, 15–24.
- Bonogofsky, M., 2003. Neolithic plastered skulls and rail-roading epistemologies. *Bulletin of the American Schools of Oriental Research* 331, 1–10.
- Bonogofsky, M., 2004. Including women and children: Neolithic modeled skulls from Jordan, Israel, Syria and Turkey. *Near Eastern Archaeology* 67(2), 118–19.
- Bourdieu, P., 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P., 1990. *The Logic of Practice*. Stanford (CA): Stanford University Press.
- Boyd, B., 1995. House and hearths, pits and burials: Natufian mortuary practices at Mallaha (Eynan), Upper Jordan Valley, in *The Archaeology of Death in the Ancient Near East*, eds. S. Campbell & A. Green. (Oxbow Monograph 51.) Oxford: Oxbow Books, 17–23.
- Boyd, B., 2006. On 'sedentism' in the Later Epipaleolithic (Natufian) Levant. *World Archaeology* 38(2), 164–78.
- Braun, E., 1985. 'En Shadud: Salvage Excavation at a Farming Community in the Jezreel Valley. (British Archaeological Reports, International Series 249.) Oxford: BAR.
- Braun, E., 1990. Basalt bowls of EB I horizon in the southern Levant. *Paléorient* 16(1), 87–96.
- Braun, E. (ed.), 1997. *Yiftah'el: Salvage and Rescue Excavations at a Prehistoric Village in Lower Galilee, Israel*. (IAA Reports 2.) Jerusalem: Israel Antiquities Authority.
- van den Brink, E.C.M., Y.M. Rowan & E. Braun, 1999. Pedestaled basalt bowls of the Chalcolithic: new variations. *Israel Exploration Journal* 49(3–4), 161–83.
- Byrd, B.F., 1994. Public and private, domestic and corporate: the emergence of the southwest Asian village. *American Antiquity* 59(4), 639–66.
- Byrd, B.F., 2000. Households in transition: Neolithic social organization within Southwest Asia, in *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*, ed. I. Kuijt. (Fundamental Issues in Archaeology.) New York (NY): Kluwer Academic, Plenum Publishers, 63–102.
- Byrd, B.F. & C.M. Monahan, 1995. Death, mortuary ritual and Natufian social structure. *Journal of Anthropological Archaeology* 14, 251–87.
- Cauvin, J., 2000. *The Birth of the Gods and the Origins of Agriculture*. (New Studies in Archaeology.) Cambridge: Cambridge University Press.
- Commange, C., 1997. The ground stone from Yiftah'el IV and III: slabs, mortars and vessels, in *Yiftah'el: Salvage and Rescue Excavations at a Prehistoric Village in Lower Galilee, Israel*, ed. E. Braun. (IAA Reports 2.) Jerusalem: Israel Antiquities Authority, 190–99.
- de Contenson, H., 1969. Quatrième et cinquième campagnes à Tell Ramad, 1967–1968: rapport préliminaire. *Annales Archéologiques Arabes Syriennes* 19, 25–30.
- David, N., 1998. The ethnoarchaeology and field archaeology of grinding at Sukur, Adamawa State, Nigeria. *African Archaeological Review* 15(1), 13–63.
- Dorrell, P.G., 1983. Stone vessels, tools and objects (appendix A), in *Excavations at Jericho*, vol. V: *The Pottery Phases of the Tell and Other Finds*, eds. K. Kenyon & T.A. Holland. London: British School of Archaeology in Jerusalem, 485–575.
- Dubreuil, L., 2004. Long-term trends in Natufian subsistence: a use-wear analysis of ground stone tools. *Journal of Archaeological Science* 31, 1613–29.
- Dubreuil, L. & L. Grosman, 2009. Ochre and hide-working at a Natufian burial place. *Antiquity* 83, 935–54.
- Dubreuil, L. & H. Plisson, 2010. Natufian flint versus ground stone tools: a use-wear perspective on subsistence change. *Eurasian Prehistory* 7(11), 47–63.
- Ebeling, J.R., 2001. *Utilitarian Objects in Sacred Spaces: Ground Stone Tools in Middle and Late Bronze Age Temples in Southern Levant*. PhD dissertation, University of Arizona. (Available from www.proquest.com - AAT 3010206.)
- Ebeling, J.R., 2002. Why are ground stone tools found in Middle and Late Bronze Age burials? *Near Eastern Archaeology* 65(2), 149–51.
- Ebeling, J.R. & Y.M. Rowan, 2004. The archaeology of the daily grind: ground stone tools and food production in the southern Levant. *Near Eastern Archaeology* 67(2), 108–17.
- Edwards, P.C., 1991. Wadi Hammeh 27: an Early Natufian site at Pella, Jordan, in *The Natufian Culture in the Levant*, eds. O. Bar Yosef & F.R. Valla. (Archaeological Series 1.) Ann Arbor (MI): International Monographs in Prehistory, 123–48.
- Eisenberg, E., A. Gopher & R. Greenberg, 2001. Stratigraphy and architecture of strata XIII-I, in *Tel Te'o: a Neolithic, Chalcolithic and Early Bronze Age Site in the Hula Valley*, eds. E. Eisenberg, A. Gopher & R. Greenberg. (IAA Reports 13.) Jerusalem: Israel Antiquities Authority, 14–46.
- Eitam, D., 2008. Plant food in the Late Natufian: the oblong conical mortar as a case study. *Journal of the Israel Prehistoric Society* 38, 133–51.
- Epstein, C., 1984. A Pottery Neolithic site near Tel Qatif. *Israel Exploration Journal* 34(4), 209–19.
- Finlayson, B., S.J. Mithen, M. Najjar *et al.*, 2011. Architecture, sedentism and social complexity at Pre-Pottery Neolithic A WF16, southern Jordan. *Proceedings of the National Academy of Sciences of the USA* 106(27), 10,966–70.
- Flannery, K.V., 1969. Origins and ecological effects of early domestication in Iran and the Near East, in *The*

- Domestication and Exploitation of Plants and Animals*, eds. P.J. Ucko & G.W. Dimbleby. London: Gerald Duckworth, 73–100.
- Fowles, S.M., 2009. The enshrined pueblo: villagescape and cosmos in the northern Rio Grande. *American Antiquity* 74(3), 448–66.
- Garfinkel, Y., 1992. The Material Culture in the Central Jordan Valley in the Pottery Neolithic and Early Chalcolithic Periods. Unpublished PhD thesis, Hebrew University, Jerusalem. [In Hebrew with English summary.]
- Garfinkel, Y., 1994. Ritual burial of cultic objects: the earliest evidence. *Cambridge Archaeological Journal* 4(2), 159–88.
- Garfinkel, Y., 2006. The burials of Kfar HaHoresh – A regional or local phenomenon? *Journal of the Israel Prehistoric Society* 36, 109–16.
- Garfinkel, Y. & D. Dag, 2008. The rise of pastoralism in the southern coastal plain of the Levant, in *Neolithic Ashkelon*, eds. Y. Garfinkel & D. Dag. (Qedem 47.) Jerusalem: The Hebrew University of Jerusalem, 281–8.
- Garrod, D.A.E. & D.M.A. Bate, 1937. *The Stone Age of Mount Carmel: Excavations at the Wady El-Mughara*, vol. I. Oxford: Clarendon Press.
- Gebel, H.G.K., 2002. Walls. Loci of forces, in *Magic Practices and Ritual in the Near Eastern Neolithic*, eds. H.G.K. Gebel, B.D. Hermansen & C.H. Jensen. (Studies in Early Near Eastern Production, Subsistence, and Environment 8.) Berlin: ex oriente, 119–32.
- Gebel, H.G.K., 2010. Commodification and the formation of Early Neolithic social identity: the issues as seen from the southern Jordanian Highlands, in *The Principle of Sharing: Segregation and Construction of Social Identities at the Transition from Foraging to Farming*, ed. M. Benz. (Studies in Early Near Eastern Production, Subsistence, and Environment 14.) Berlin: ex oriente, 35–80.
- Gilead, I., 1991. The Upper Paleolithic period in the Levant. *Journal of World Prehistory* 5(2), 105–54.
- Gilead, I., 1995. The foragers of the Upper Palaeolithic period, in *The Archaeology of Society in the Holy Land*, ed. T.E. Levy. London: Leicester University Press, 124–40.
- Gopher, A., 1995. 'Ain Darat: a PPNA site in the Judean Desert. *Neo-Lithics* 1/95, 7–8.
- Gopher, A., 1997. Ground stone tools and other stone objects from Netiv Hagdud, in *An Early Neolithic Village in the Jordan Valley*, part I: *The Archaeology of Netiv Hagdud*, eds. O. Bar-Yosef & A. Gopher. Cambridge (MA): Peabody Museum of Archaeology and Ethnology, Harvard University, 151–76.
- Gopher, A. & A.N. Goring-Morris, 1998. Abu-Salem: a Pre-Pottery Neolithic B camp in the Central Negev Highlands, Israel. *Bulletin of the American Schools of Oriental Research* 312, 1–20.
- Gopher, A. & E. Orrelle, 1995a. *The Ground Stone Assemblages of Munhata: a Neolithic Site in the Jordan Valley, Israel*. (Les cahiers des missions archéologiques françaises en Israël 7.) Paris: Association Paléorient.
- Gopher, A. & E. Orrelle, 1995b. New data on burials from the Pottery Neolithic period (sixth–fifth millennium bc) in Israel, in *The Archaeology of Death in the Ancient Near East*, eds. S. Campbell & A. Green. (Oxbow Monograph 51.) Oxford: Oxbow Books, 24–8.
- Goren-Inbar, N., G. Sharon, Y. Melamed & M. Kislev, 2002. Nuts, nut cracking, and pitted stones at Gesher Benot Ya'akov, Israel. *Proceedings of the National Academy of Sciences of the USA* 99(4), 2455–60.
- Goring-Morris, A.N., 1980. Upper Palaeolithic sites from Wadi Fazaal, Lower Jordan Valley. *Paléorient* 6, 173–91.
- Goring-Morris, A.N., 1987. *At the Edge: Terminal Pleistocene Hunter-fatherers in the Negev and Sinai*, vol. 1. (British Archaeological Reports, International Series 361.) Oxford: BAR.
- Goring-Morris, A.N., 1988. Trends in the spatial organization of Terminal Pleistocene hunter-gatherer occupations as viewed from the Negev and Sinai. *Paléorient* 14(2), 231–44.
- Goring-Morris, A.N., 2000. The quick and the dead: the social context of Aceramic Neolithic mortuary practices as seen from Kfar HaHoresh, in *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*, ed. I. Kuijt. (Fundamental Issues in Archaeology.) New York (NY): Kluwer Academic, Plenum Publishers, 103–35.
- Goring-Morris, A.N. & A. Belfer-Cohen, 1998. The articulation of cultural processes and Late Quaternary environmental changes in Cisjordan. *Paléorient* 23(2), 71–93.
- Goring-Morris, A.N. & A. Belfer-Cohen, 2003. Structures and dwellings in the Upper and Epipalaeolithic (ca. 42–10K BP) Levant: profane and symbolic uses, in *Perceived Landscapes and Built Environments: the Cultural Geography of Late Paleolithic Eurasia*, eds. S.A. Vasil'ev, J. Kozłowski & O. Soffer. (British Archaeological Reports, International Series 1122.) Oxford: BAR, 65–81.
- Goring-Morris, A.N. & A. Belfer-Cohen, 2008. A roof over one's head: developments in Near Eastern residential architecture across the Epipalaeolithic–Neolithic transition, in *The Neolithic Demographic Transition and its Consequences*, eds. J.-P. Bocquet-Appel & O. Bar-Yosef. Dordrecht: Springer Verlag, 239–86.
- Goring-Morris, A.N. & A. Belfer-Cohen, 2010. Different ways of being, different ways of seeing: changing worldviews in the Near East, in *Landscapes in Transition: Understanding Hunter-gatherer and Farming Landscapes in the Early Holocene of Europe and the Levant*, eds. B. Finlayson & G. Warren. (Levant Supplementary Series 8.) London: Council for British Research in the Levant, 9–22.
- Goring-Morris, A.N., E. Hovers & A. Belfer-Cohen, 2009. The dynamics of Pleistocene and Early Holocene settlement patterns and human adaptations in the Levant: an overview, in *Transition in Prehistory: Essays in Honor of Ofer Bar-Yosef*, eds. J.J. Shea & D.E. Lieberman. (American School of Prehistoric Research Monograph Series.) Oxford: Oxbow Books, 187–252.
- Hardy-Smith, T. & P.C. Edwards, 2004. The garbage crisis in prehistory: artefact discard patterns at the Early Natufian site of Wadi Hammeh 27 and the origins

- of household refuse disposal strategies. *Journal of Anthropological Archaeology* 23(3), 253–89.
- Hayden, B., 2004. Sociopolitical organization in the Natufian: a view from the northwest, in *The Last Hunter-gatherer Societies in the Near East*, ed. C. Delage. (British Archaeological Reports, International Series 1320.) Oxford: BAR, 263–308.
- Henry, D.O., 1989. *From Foraging to Agriculture: the Levant at the End of the Ice Age*. Philadelphia (PA): University of Pennsylvania Press.
- Hodder, I., 1984. *Symbols in Actions: Ethnoarchaeological Studies of Material Culture*. (New Studies in Archaeology.) Cambridge: Cambridge University Press.
- Hodder, I., 1986. *Reading the Past: Current Approaches to Interpretation in Archaeology*. Cambridge: Cambridge University Press.
- Hodder, I., 1990. *The Domestication of Europe: Structure and Contingency in Neolithic Societies*. Oxford: Blackwell.
- Ingold, T., 2000. *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill*. London: Routledge.
- Insoll, T., 2006. Shrine franchising and the Neolithic in the British Isles: some observations based upon the Talensi, northern Ghana. *Cambridge Archaeological Journal* 16(2), 223–38.
- Kafafi, Z. & G.O. Rollefson, 1995. The 1994 excavation season at 'Ayn Ghazāl: preliminary report. *Annual of the Department of Antiquities of Jordan* 39, 13–29.
- Keane, W., 2010. Marked, absent, habitual: approaches to Neolithic religion at Çatalhöyük, in *Religion in the Emergence of Civilization: Çatalhöyük as a Case Study*, ed. I. Hodder. Cambridge: Cambridge University Press, 187–219.
- Kenyon, K.M., 1957. *Digging Up Jericho: the Results of the Jericho Excavations, 1952–1956*. London: E. Benn.
- Kerner, S., 2010. Craft specialization and its relation with social organization in the late 6th to early 4th millennium BCE of the southern Levant. *Paléorient* 36(1), 179–98.
- Kirkbride, D., 1966. Beidha an Early Neolithic village in Jordan. *Archaeology* 19(3), 199–207.
- Kopytoff, I., 1986. The cultural biography of things: commoditization as process, in *The Social Life of Things: Commodities in Cultural Perspective*, ed. A. Appadurai. (Cambridge Studies in Social and Cultural Anthropology.) Cambridge: Cambridge University Press, 64–94.
- Kraybill, N., 1977. Pre-agricultural tools for the preparation of foods in the Old World, in *Origins of Agriculture*, ed. C.A. Reed. The Hague: Mouton, 485–521.
- Kuijt, I., 1996. Negotiating equality through ritual: a consideration of Late Natufian and Pre-Pottery Neolithic A period mortuary practices. *Journal of Anthropological Archaeology* 15, 313–36.
- Kuijt, I., 2001. Place, death, and the transmission of social memory in early agricultural communities of the Near Eastern Pre-Pottery Neolithic. *Archeological Papers of the American Anthropological Association* 10(1), 80–99.
- Kuijt, I., 2008. The regeneration of life: Neolithic structures of symbolic remembering and forgetting. *Current Anthropology* 49(2), 171–97.
- Kuijt, I. & B. Finlayson, 2009. Evidence for food storage and predomestication granaries 11,000 years ago in the Jordan Valley. *Proceedings of the National Academy of Sciences of the USA* 106(27), 10,966–70.
- Kuijt, I. & A.N. Goring-Morris, 2002. Foraging, farming and social complexity in the Pre-Pottery Neolithic of the southern Levant: a review and synthesis. *Journal of World Prehistory* 16(4), 361–440.
- Latour, B., 2005. *Reassembling the Social: an Introduction to Actor-Network-Theory*. Oxford: Oxford University Press
- Lechevallier, M., 1978. *Abou Gosh et Beisamoun: deux gisements du VIIe millénaire avant l'ère chrétienne en Israël*. (Mémoires et travaux du Centre de recherche préhistoriques français de Jérusalem 2.) Paris: Association Paléorient.
- Maher, L.A., J.T. Stock, S. Finney, J.J.N. Heywood, P.T. Miracle & E.B. Banning, 2011. A unique human–fox burial from a Pre-Natufian cemetery in the Levant (Jordan). *PLOS One* 6(1), e15815.
- Marks, A.E., 1976. Ein Aqev: a late Levantine Upper Paleolithic site in the Nahal Aqev, in *Prehistory and Palaeoenvironments in the Central Negev, Israel*, vol. I, ed. A.E. Marks. Dallas (TX): SMU Press, 227–97.
- Milevski, I., H. Khalaily, N. Getzov & I. Hershkovitz, 2008. The plastered skulls and other PPNB finds from Yiftahel, Lower Galilee (Israel). *Paléorient* 34(2), 37–46.
- Mithen, S., B. Finlayson & R. Shaffrey, 2006. Sexual symbolism in the Early Neolithic of the southern Levant: pestles and mortars from WF16. *Documenta Prehistorica* 32, 103–10.
- Nadel, D., 1996. The organization of space in a fisher-hunter-gatherer camp at Ohalo-II, Israel, in *Nature et Culture*, ed. M. Otte. (ERAUL 68.) Liege: Université de Liège, 373–88.
- Nadel, D. & G. Lengyel, 2009. Human-made bedrock holes (mortars and cupmarks) as a Late Natufian social phenomenon. *Archaeology, Ethnology and Anthropology of Eurasia* 37(2), 37–48.
- Nadel, D., G. Lengyel, F. Bocquentin *et al.*, 2008. The Late Natufian at Raqefet Cave: the 2006 excavation season. *Journal of the Israel Prehistoric Society* 38, 59–131.
- Nadel, D., G. Lengyel, T. Cabellos Panades *et al.*, 2009a. The Raqefet Cave 2008 excavation season. *Journal of the Israel Prehistoric Society* 39, 21–61.
- Nadel, D., D. Rosenberg & R. Yeshurun, 2009b. The deep and the shallow: the role of Natufian bedrock features at Rosh Zin, Central Negev, Israel. *Bulletin of the American Schools of Oriental Research* 355, 1–29.
- Naveh, D., 2003. PPNA Jericho: a socio-political perspective. *Cambridge Archaeological Journal* 13(1), 83–96.
- Neeley, M.P., J.D. Peterson, G.A. Clark & S. Fish, 2000. WHS 1065 (Tor al-Tareeq), an Epipalaeolithic site in the Wadi el-Hasa, west-central Jordan, in *The Archaeology of the Wadi Al-Hasa, West-central Jordan*, vol. 2: *Excavations at Middle, Upper and Epipalaeolithic Sites*, ed. N.R. Coinman. (Anthropological Research Papers 52.) Tempe (AZ): Arizona State University, 245–79.
- Noy, T., 1991. Art and decoration of the Natufian at Nahal Oren, in *The Natufian Culture in the Levant*, eds. O.

- Bar-Yosef & F.R. Valla. (Archaeological Series 1.) Ann Arbor (MI): International Monographs in Prehistory, 557–68.
- Perrot, J., 1966. Le gisement Natoufien de Mallaha (Eynan), Israël. *L'Anthropologie* 70(5–6), 437–84.
- Perrot, J. & D. Ladiray, 1988. *Les hommes de Mallaha (Eynan), Israël*. (Mémoires et travaux du Centre de recherche français de Jérusalem 7.) Paris: Association Paléorient.
- Peterson, J., 1999. Early Epipalaeolithic settlement patterns: insights from the study of ground stone tools from the southern Levant. *Levant* 31, 1–17.
- Peterson, J., 2000. Ground stone as an inferential tool: an example from Tor al-Tareeq, Jordan, in *The Archaeology of the Wadi Al-Hasa, West-central Jordan*, vol. 2: *Excavations at Middle, Upper and Epipalaeolithic Sites*, ed. N.R. Coinman. (Anthropological Research Papers 52.) Tempe (AZ): Arizona State University, 327–43.
- Pétrequin, P. & A.M. Pétrequin, 1993. From polished stone tool to the sacred axe: the axes of the Danis of Irian Jaya, Indonesia, in *The Use of Tools by Human and Non-human Primates*, eds. A. Berthelet & J. Chavaillon. Oxford: Clarendon Press, 359–77.
- Piperno, D.R., E. Weiss, I. Holst & D. Nadel, 2004. Processing of wild cereal grains in the Upper Palaeolithic revealed by starch grain analysis. *Nature* 430, 670–73.
- Rollefson, G.O. & A.H. Simmons, 1985. The Early Neolithic village of 'Ain Ghazal, Jordan: preliminary report on the 1983 season. *Bulletin of the American Schools of Oriental Research* supplement 23, 35–52.
- Rollefson, G.O. & A.H. Simmons, 1988. The Neolithic village of 'Ain Ghazal, Jordan: preliminary report on the 1985 season. *Bulletin of the American Schools of Oriental Research* supplement 25, 93–106.
- Ronen, A., 2003. Grinding tools as grave goods, in *Préhistoire des pratiques mortuaires*, ed. E. Derwich. (ERAUL 102.) Liège: Université de Liège, 63–8.
- Ronen, A. & D. Adler, 2001. The walls of Jericho were magical. *Archaeology, Ethnology & Anthropology of Eurasia* 2(6), 97–103.
- Ronen, A. & B. Vandermeersch, 1972. The Upper Paleolithic sequence in the cave of Qafza (Israel). *Quaternaria* 16, 189–202.
- Ronen, A., B. Lang & M. Lechevallier, 2003. Gaining lithic expertise in the Epi-Palaeolithic. *Lithic Technology* 28(2), 107–12.
- Rosenberg, D., 2004. The Pestle: Characteristics and Changes of Stone Pounding Implements in the Southern Levant from the Early Epipalaeolithic through the Pottery Neolithic Period. Unpublished MA thesis, Tel Aviv University. [Hebrew with English summary.]
- Rosenberg, D., 2008. Serving meals making a home: the PPNA limestone vessel industry of the southern Levant and its importance to the Neolithic revolution. *Paléorient* 34(1), 23–32.
- Rosenberg, D., 2011. Development, Continuity and Change: the Stone Industries of the Early Ceramic Bearing Cultures of the Southern Levant. Unpublished PhD dissertation, University of Haifa. [In Hebrew with English summary.]
- Rosenberg, D., in press. The stone assemblage of Hagoshrim, in *Continuity and Change in the Neolithic of Northern Israel*, eds. N. Getzov & H. Khalaily. (IAA Reports.) Jerusalem: Israel Antiquities Authority.
- Rosenberg, D. & Y. Garfinkel, in press. *The Stone Assemblage of Sha'ar Hagolan*. (Qedem 47.) Jerusalem: The Hebrew University of Jerusalem.
- Rosenberg, D. & A. Golani, 2012. Groundstone tools of a copper-smiths' community: understanding stone-related aspects of the Early Bronze Age site of Ashqelon Barnea. *Journal of Mediterranean Archaeology* 25(1), 27–51.
- Rosenberg, D. & A. Gopher, 2010. Food processing tools and other groundstone implements from Gilgal I and Gilgal III, in *Gilgal: Early Neolithic Occupations in the Lower Jordan Valley. The Excavations of Tamar Noy*, eds. O. Bar-Yosef, A.N. Goring-Morris & A. Gopher (American School of Prehistoric Research Monograph Series.) Oxford: Oxbow Books, 139–75.
- Rosenberg, D. & D. Nadel, 2011. On floor level: PPNA indoor cupmarks and their Natufian forerunners, in *The State of the Stone: Terminologies, Continuities and Contexts in Near Eastern Lithics*, eds. E. Healy, S. Campbell & O. Maeda. (Studies in Early Near Eastern Production, Subsistence, and Environment 13.) Berlin: ex oriente, 99–108.
- Rosenberg, D., A. Assaf, N. Getzov & A. Gopher, 2008. Flaked stone discs of the Neolithic and Chalcolithic periods in the southern Levant. *Paléorient* 34(2), 137–51.
- Rosenberg, D., D. Kaufman, R. Yeshurun & M. Weinstein-Evron, 2013. The broken record: the Natufian groundstone assemblage from el-Wad Terrace (Mount Carmel, Israel) — attributes and their interpretation. *Eurasian Prehistory* 9(1–2), 89–124.
- Rosenberg, M. & R.W. Redding, 2000. Hallan Çemi and early village organization in eastern Anatolia, in *Life in Neolithic Farming Communities: Social Organization, Identity, and Differentiation*, ed. I. Kuijt. (Fundamental Issues in Archaeology.) New York (NY): Kluwer Academic, Plenum Publishers, 39–61.
- Rowan, Y.M., 1998. Ancient Distribution and Deposition of Prestige Objects: Basalt Vessels During Late Prehistory in the Southern Levant. Unpublished PhD dissertation, University of Texas.
- Rowan, Y.M. & J. Golden, 2009. The Chalcolithic period of the southern Levant: a synthetic review. *Journal of World Prehistory* 22(1), 1–92.
- Rucks, M.M., 1995. The Social Context and Cultural Meaning of Ground Stone Milling Among Washoe Women. Unpublished MA thesis, University of Nevada.
- Samuelian, N., H. Khalaily & F.R. Valla, 2006. Final Natufian architecture at 'Eynan ('Ain Mallaha) approaching the diversity behind uniformity, in *Domesticating Space: Construction, Community and Cosmology in the Late Prehistoric Near East*, eds. E.B. Banning & M. Chazan. (Studies in Early Near Eastern Production, Subsistence, and Environment 6.) Berlin: ex oriente, 35–42.
- Samzun, A., 1994. Le mobilier en pierre, in *Le gisement de Hatoula en Judée occidentale, Israël*, eds. M. Lecheval-

- lier & A. Ronen. (Mémoires et travaux du Centre de recherche français de Jérusalem 8.) Paris: Association Paléorient, 193–226.
- Schlanger, S.H., 1991. On manos, metates, and the history of site occupations. *American Antiquity* 56(3), 460–74.
- Shaffrey, R., 2007. The groundstone, in *The Early Prehistory of Wadi Faynan, Southern Jordan: Archaeological Survey of Wadis Faynan, Ghuwayr and Al Bustan and Evaluation of the Pre-Pottery Neolithic A Site of WF16*, eds. B. Finlayson & S. Mithen. Oxford: Oxbow Books, 323–55.
- Sherratt, A., 1981. Plough and pastoralism: aspects of the secondary products revolution, in *Patterns of the Past: Studies in Honour of David Clarke*, eds. I. Hodder, G. Isaac & N. Hammond. Cambridge: Cambridge University, 261–305.
- Sherratt, A., 1983. The secondary exploitation of animals in the Old World. *World Archaeology* 15(1), 90–104.
- Spivak, P., 2008. The Limestone and Basalt Assemblage of the Epi-Palaeolithic Ohalo II, a 23,000 Years BP Hunter/Gatherer/Fishermen's Site. Unpublished MA thesis, University of Haifa.
- Stekelis, M. & T. Yizraely, 1963. Excavation at Nahal Oren. *Israel Exploration Journal* 13, 1–12.
- Stordeur, D., B. Jammous, D. Helmer & G. Willcox, 1996. Jarf el Ahmar: a new Mureybetian site (PPNA) on the Middle Euphrates. *Neo-Lithics* 2/96, 1–2.
- Stordeur, D., M. Brenet, G. der Aprahamian & J.-C. Roux, 2000. Les bâtiments communautaires de Jerf el Ahmar et Mureybet horizon PPNA (Syrie). *Paléorient* 26(1), 29–44.
- Tchernov, E., 1984. Commensal animals and human sedentism in the Middle East, in *Animals and Archaeology*, vol. 3: *Early Herders and Their Flocks*, eds. J. Clutton-Brock & C. Grigson. (British Archaeological Reports, International Series 202.) Oxford: BAR, 91–115.
- Tsoraki, C., 2007. Unravelling ground stone life histories: the spatial organization of stone tools and human activities at LN Makriyalos, Greece. *Documenta Praehistorica* 34, 289–97.
- Valla, F.R., 1988. Aspects du sol de l'abri 131 de Mallaha (Eynan). *Paléorient* 14(2), 283–96.
- Valla, F.R., H. Khalaily, N. Samuelian *et al.*, 2001. Le Natufian final de Mallaha (Eynan), deuxième rapport préliminaire: les fouilles de 1998–1999. *Journal of the Israel Prehistoric Society* 31, 43–184.
- Valla, F.R., H. Khalaily, H. Valladas *et al.*, 2007. Les fouilles de Ain Mallaha (Eynan) de 2003 à 2005: quatrième rapport préliminaire. *Journal of the Israel Prehistoric Society* 37, 135–379.
- Watkins, T., 1990. The origins of house and home? *World Archaeology* 21(3), 336–47.
- Watkins, T., 2004. Building houses, framing concepts, constructing worlds. *Paléorient* 30(1), 5–23.
- Weinstein-Evron, M., 1998. *Early Natufian El-Wad Revisited*. (ERAUL 77.) Liège: Université de Liège.
- Weinstein-Evron, M., 2009. *Archaeology in the Archives: Unveiling the Natufian Culture of Mount Carmel*. (American School of Prehistoric Research Monograph Series.) Boston (MA): Brill.
- Weinstein-Evron, M., B. Lang, S. Ilani, G. Steinitz & D. Kaufman, 1995. K/AR dating as a means of sourcing Levantine Epipalaeolithic basalt implements. *Archaeometry* 37(1), 37–40.
- Weinstein-Evron, M., B. Lang & S. Ilani, 1999. Natufian trade/exchange in basalt implements: evidence from northern Israel. *Archaeometry* 41(2), 267–73.
- Weinstein-Evron, M., D. Kaufman & N. Bird-David, 2001. Rolling stones: basalt implements as evidence for trade/exchange in the Levantine Epipalaeolithic. *Journal of the Israel Prehistoric Society* 31, 25–42.
- Weinstein-Evron, M., D. Kaufman, N. Bachrach *et al.*, 2007. After 70 years: new excavations at the el-Wad Terrace, Mount Carmel, Israel. *Journal of the Israel Prehistoric Society* 37, 37–134.
- Wright, G.H., 1978. Social differentiation in the Early Natufian, in *Social Archaeology: Beyond Substance and Dating*, eds. C.L. Redman, M.J. Berman, E.V. Curtin, W.T. Langhorne, N.M. Versaggi & J.C. Wanser. New York (NY): Academic Press, 201–23.
- Wright, K., 1991. The origins and development of ground stone assemblages in Late Pleistocene Southwest Asia. *Paléorient* 17(1), 19–45.
- Wright, K., 1992. Ground Stone Assemblage Variation and Subsistence Strategies in the Levant, 22,000 to 5,000 BP. Unpublished PhD dissertation, Yale University.
- Wright, K., 1993. Early Holocene ground stone assemblages in the Levant. *Levant* 25, 93–111.
- Wright, K., 1994. Ground-stone tools and hunter-gatherer subsistence in southwest Asia: implications for the transition to farming. *American Antiquity* 59(2), 238–63.
- Wright, K., 2000. The social origins of cooking and dining in early villages of western Asia. *Proceedings of the Prehistoric Society* 66, 89–121.
- Yartah, T., 2005. Les bâtiments communautaires de Tell 'Abr 3 (PPNA, Syrie). *Neo-Lithics* 1/05, 3–9.

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