The context and production of incised Neolithic stones

Phillip C. Edwards

Archaeology Program, La Trobe University, Victoria 3086, Australia. p.edwards@latrobe.edu.au

Incised Neolithic stones are rare in the archaeological record of the southern Levant, with only a handful of examples known from the entire Neolithic period. Structure 2 at the Pre-Pottery Neolithic A site of Zaharat al-Dhra’ 2 (ZAD 2) in Jordan has yielded three incised plaques and pebbles, decorated with similar geometric motifs, together with two limestone blanks possibly intended for the production of more incised pieces. The circumstances of these finds, limited to only one of four ZAD 2 deadlings, reinforce a recent idea forwarded by of Eirikh-Rose (2004) which contends that incised Neolithic stones functioned as symbols denoting aspects of identity.

The forms of visual representation developed in the early Holocene in the Levant include a series of small plaques and pebbles, incised with geometric motifs. This series of patterned stones persisted from the Pre-Pottery Neolithic A or PPNA period (beginning ca. 10,300 BP) until the Pottery Neolithic period (ca. 6,500 BP). They have broadly similar antecedents in the Natufian period (ca. 13,000–10,300 BP), although Natufian examples exhibit a broader range of decorative motifs than the later Neolithic types, ranging from complex geometric patterns to apparent ad hoc markings (Belfer-Cohen 1991; Edwards 1991; Noy 1991). In contrast, the PPNA examples are more standardised with regard to blank type and motif type. Eirikh-Rose (2004, 148) has divided the known corpus of Neolithic examples into several design types: Linear, Grid, Cruciform, Radiating, Concentric, Chevrons, Drilled and Combined.

The incised stones have been variously explained, inter alia, as textile stamps, branding stones, rain-making talismans, representations of female genitalia and complex schemes for the representation of the female reproductive cycle (Eirikh-Rose 2004; Gopher and Orrelle 1996). The fact that such diverse hypotheses can coexist about the same representations underscores the inherent difficulty of interpreting these objects, and more importantly, gaining independent lines of evidence with which to evaluate the plausibility of such interpretations. As has been understood for some time, the only means we have of gaining fresh insights into the meanings of prehistoric symbols is via a thorough-going examination of their archaeological contexts (Marcus 1996). For most of the specimens, however, there is little of this type of information available (Eirikh-Rose 2004). This study represents an initial attempt at providing such a context for the ZAD 2 site and the PPNA period.

The Late Neolithic sites of Sha’ar Hagolan and Munhata have yielded rich assemblages of incised pebbles and stones with both simple geometric motifs and more complex designs, which Gopher and Orrelle (1996) have plausibly interpreted as anthropomorphic, produced to varying degrees of schematization. However, the authors also extend this interpretation to include pebbles with single drilled holes as ‘representations of wom-‘n’ and others with simple grid patterns as ‘representations of vulvae’ (Gopher and Orrelle 1996, 257). There is no reason why these simpler geometric designs could not have worked as a system of representation parallel to, and independent of, the anthropomorphic images. In this regard, intriguing evidence has been recovered from the Late Neolithic site of Sha’ar Hagolan (ca. 7,500–7,000 BP; Garfinkel and Miller 2002, 29), where an incised stone bearing a cross-pattern was found in Building Complex I and another bearing a vertical line on one side and eleven parallel lines on the other was found in Building Complex II (Garfinkel and Miller 2002, 33). Both items were found on floors of rooms interpreted as storage rooms.

Eirikh-Rose (2004) notes that finds of incised stones in the recent excavations at Sha’ar Hagolan were rare, with only three examples, as opposed to 86 ceramic tokens and figurines. In fact, incised Neolithic stones are extremely rare throughout the
early Neolithic. For the Pre-Pottery Neolithic A (PPNA) period (10,300–9,300 BP), Eirikh-Rose lists no more than six sites from the entire Levant, which have individually yielded either single examples or very few at the most. There are too few incised stones known to suggest that they could have functioned to signify individual goods or commodities, as Schmandt-Besserat (1992) claimed for the parallel Neolithic series of ceramic tokens.

Indeed, Michalowski (1993) has argued that even ceramic tokens could not have been used to denote specific referents, since there are too few extant types to account for a cohesive semantic system (only 812 tokens for 241 sub-types at Uruk, for example). In related fashion, Akkermans and Duistermaat (2004) found several different seal types impressed into individual ceramic vessels at Tell Sabi Abyad. They reasoned that the different seal designs could not have identified the contents of vessels, but more likely signified ownership, with various interested parties having registered their interest in the vessels by making seal impressions on them. Similarly, Eirikh-Rose (2004, 155–156) has suggested that incised stones may have functioned to signify ownership at some level.

Dating nearly two thousand years earlier than Sha’ar Hagolan, the PPNA site of Zahrat al-Dhra’ 2 (ZAD 2) has recently yielded analogous evidence to that highlighted by Eirikh-Rose. Three incised stones, bearing very similar motifs, were found in one of the four houses excavated at the site. These objects provide general support for Eirikh-Rose’s interpretation and prompt additional questions about the production and use of incised stones in the Early Neolithic.

ZAD 2 is a late Pre-Pottery Neolithic A site dating 9,600–9,300 B.P. (Edwards et al. 2004), located near the south-eastern shore of the Dead Sea in

Figure 1. The excavated areas at Zahrat al-Dhra’ 2 (ZAD 2).
Figure 2. Structures 2 and 3, ZAD 2. Darker shading indicates areas excavated to the uppermost (Phase 1) floors. Lighter shading denotes incomplete excavations above these. The numbered black discs represent the findspots of stone pieces 1–5 (cf. Fig. 3).

Figure 3. Incised stones from ZAD 2; (1) Broken, incised limestone plaque RN 990001; (2) Broken, incised limestone plaque RN 020005; (3) incised limestone pebble RN 020060; (4) Ovoid plaque RN 020063; (5) Rectangular limestone piece RN 020065. The illustration numbers correspond to the numbered black discs in Fig. 2.
Jordan. The site takes the form of a low mound of 2,000 square meters that is covered with flaked stone, limestone rubble and the remains of basalt groundstone tools. Excavations demonstrated a single architectural phase embedded in cultural deposits which extend to a maximum depth of 1.5 metres. Wall stubs of many curvilinear structures were exposed on the surface, four of which have been partially excavated (Structures 1–4, Fig. 1).

Three incised stones and two unmarked but shaped limestone plaques were recovered from sealed, undisturbed and horizontally-bedded deposits overlying the uppermost (Phase 1) floor inside Structure 2 (Fig. 2). Micromorphological studies (Edwards and House n.d.; House 2003) demonstrate that these deposits, similar in mineralogy to the surrounding rock types and sediments, gradually accumulated during the lifespan of the site.

This floor surface yielded many features and work stations, including a plastered stone hearth (Feature 4 = F. 4) and a cuphole mortar surrounded by a bed of cobbles (F. 8). The first of the incised stones, a fragmentary incised limestone plaque (Registration Number [= RN] 990001), was found to the north of the Feature 4 hearth (Fig. 2, Fig 3:1). This piece was recovered during wet-sieving. A second fragmentary, incised limestone plaque (RN 020005, Fig 3:2) was found between the cuphole mortar and the exterior wall of Structure 2.

Two further hearths, (F. 9 and F. 10), were located in the southeastern sector of Structure 2. The area around Feature 9 and between it and Feature 10 yielded a rich trove of objects. These included a fragmentary ceramic figurine, several bone tools and basalt tools, and many flint axes, picks and cores. An incised limestone pebble (RN 020060) and two plain but shaped limestone plaques (RN 020063 and RN 020065; Fig. 2) were also found there. It appears that varied craft activities were carried out by artisans in the vicinity of the hearths, and that these included the production of shaped limestone blanks.

The five limestone objects are described below in numerical order, coinciding with the numbered discs in Figure 2 representing the location of the objects. Each piece is illustrated in Figure 3, according to the same numerical order.

1. RN 990001. Fragmentary, incised limestone plaque from Structure 2, Square K22, Locus 2.1. One face bears a design motif comprising fifteen vertical strokes, pendant from a band of 4 parallel strokes.
2. RN 020005. Fragmentary, incised limestone plaque from Structure 2, Square K25, Locus 3.2. One face bears a design motif comprising five vertical lines, incised deeply and to a width of 1 mm, pendant from one horizontal stroke. The left three vertical lines terminate within the field of the plaque surface, but the two right-hand ones two are interrupted by the fractured edge of the piece.
3. RN 020060. Intact incised limestone pebble from Structure 2, Square N26, Locus 3.1. One face bears a design motif comprising two pairs of four vertical strokes overlain by two pairs of horizontal strokes. Some of the vertical strokes continue beyond the termination formed by the horizontal strokes. All strokes are deeply incised. The pebble shows signs of burning.
4. RN 020063. Plain, limestone plaque shaped to an ovoid form, from Structure 2, Square N26, Locus 3.1.
5. RN 020065. Plain, limestone plaque shaped to a rectangular form, from Structure 2, Square N26, Locus 3.1.

While the three incised stones (Fig 3: 1–3) differ from each other in their specific details, the motifs are nevertheless similar in concept, with vertical, parallel lines running perpendicular from horizontal strokes. It is not entirely clear what the plain, shaped pieces could be for, but it is plausible that they were prepared as blanks on which to display additional incised representations. Even if it is larger than the decorated examples from ZAD 2, the ovoid piece, RN 020063 (Fig. 3:4) approximates the broken plaques, RN 990001 and RN 020005 (Figs 3:1–2). The rectangular piece, RN 020065 (Fig. 3:5), is different in shape again, although the three incised examples vary indeed in shape and form, and there is no reason why the examples found so far should exhaust the possible repertoire of shapes that were used.

The location of the shaped but plain limestone pieces in close proximity to RN 020060 strengthens the possibility that they were associated functionally with them. Neither incised stones nor limestone blanks were found in any of the other three structures. All sediments excavated from ZAD 2 were sieved, so any specimen (whether plain or decorated) should have been retrieved if it had been present. Then again, it is true that no single structure has as yet been fully excavated.

The examples from ZAD 2 resemble each other more than they do the few known parallels from other PPNA or PPNB sites. An incised stone from Netiv Hagdud (Gopher 1997, 171) also features vertical lines framed by bands of four parallel horizontal...
Figure 4. (1) Incised pebble from Netiv Hagdud (after Gopher 1997, 171), reproduced by courtesy of Ofer Bar-Yosef and the Peabody Museum Press; (2) Incised pebble from Ein Suhun (after Nadel et al. 2000, 85), reproduced by courtesy of Dani Nadel. This piece is inverted, compared to the original publication of the object.

Figure 5. Incised limestone fragment from the Late Natufian site of Wadi Khawfan 1, Jordan.
strokes, however, the former are incorporated into a sinuous wavy band (Fig. 4: 1). A much closer and more intriguing parallel is a surface find from the PPNB site of Ein Suhun (Nadel et al. 2000, 85). This fragmentary basalt piece is badly damaged, but it is clear that it features rows of vertical lines running perpendicular to a band of three horizontal strokes (Fig. 4: 2). Thus, it displays a close resemblance to the specimens RN 990001 and RN 020005 from ZAD 2. Considering the evidence in its entirety, it is plausible to advance the following argument in support of Earljk-Rose's hypothesis of incised stones as identity symbols:

1) The occupants of Structure 2 produced the incised stones in their abode in order to signal information about their social status. These valued items were lodged permanently in the house. Even when incised stones became broken they were still considered to hold special significance, which explains why worn-out and broken specimens (RN 990001 and RN 020005) are found together with a fresh and intact one (RN 020060).

However, further consideration throws up several alternative possibilities:

2) The incised stones might be clustered in Structure 2 because it simply functioned as a workshop for their production, with no particular significance attached to the persons who visited the building to carry out the work.

3) We cannot assume that it was intended to decorate the limestone blanks from Structure 2 with the same motif types as were found on the marked items. It could be that incised stones were traded between groups, acquiring social value and symbolic power in the minds of their recipients (just as many special objects are exchanged among traditional peoples in recent times). Thus, the finished items in Structure 2 might have originated at another settlement like Ein Suhun, explaining why a very similar motif type was found at that latter site.

4) We can envisage an inverted scenario to the previous one where ZAD 2 functioned as the production centre for stones with the horizontal/vertical line motif. Some of these items may have been previously exchanged (i.e. the example found at Ein Suhun), with others stockpiled at the place of origin, waiting to be distributed. Nonetheless, it is difficult to reconcile the presence of broken incised stones at Structure 2 with this explanation. (Alternatives 3 and 4 might profitably be explored through petrological examination or chemical characterization of the stones, in relation to local rock sources).

5) We cannot discount the possibility that similar motif types were developed, at different times and in different places, as accidents of convergent cultural evolution. This idea gains credence through a limestone plaque fragment from the Late Natufian site of Wadi Khawwan 1 (Edwards et al. 1998, 27). The piece (Fig. 5) bears pairs of faint incised vertical lines, running perpendicularly from a pair of horizontal strokes. It is very similar to the specimens from ZAD 2 and Ein Suhun but dates at least a millennium earlier. Similar designs might have been thrown up, through time, by the accidental re-invention of a limited range of decorative possibilities.

The first two models would seem to be most parsimonious in terms of the available evidence, but the others are also plausible given our restricted knowledge of the contexts of incised stones. The excavations of ZAD 2 have thrown up significant new avenues for debate about the intriguing class of Neolithic incised stones, which were created over several millennia in the Levantine Neolithic. The further retrieval of fine-scale contextual evidence from Neolithic sites undoubtedly will shed more light on the production and utilisation of these intriguing objects.

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