DECONSTRUCTING THE DESTRUCTION OF HASANLU:
ARCHAEOLOGY, IMPERIALISM AND
THE CHRONOLOGY OF THE IRANIAN IRON AGE

BY
Peter MAGEE
(Bryn Mawr)

Abstract: The destruction of Hasanlu IVb at or near 800 BC has remained a fix-
point for Iranian and near eastern archaeology for nearly half a century. In this
paper the methodological basis for this interpretation are analyzed. Moving from
this, a complete stratigraphical and statistical re-analysis of the carbon-14 data
from Hasanlu IVB is presented. When combined, these avenues of analysis show
that a destruction date in the eighth century BC is not only not negated by the evi-
dence, but jibes with long-held stylistic analysis of some of the Hasanlu IVb arti-
facts.

Keywords: Hasanlu, Urartu, Assyria, Imperialism, carbon-14, Agrab Tepe.

Introduction

Hasanlu is one of the most important sites for examining aspects of cultural
change in north-western Iran (fig. 1). Between 1956 and 1977 excavation by
the University of Pennsylvania Museum, the Metropolitan Museum of Art
and the Archaeological Service of Iran revealed a settlement that contained
a wealth of archaeological material. It is a tribute to the skill and meticulous

1 I began working on this paper in 1997 while a postdoctoral fellow at the department
of Near Eastern Languages and Cultures, University of Ghent (Belgium). The excellent
library there allowed me to throw myself into the study of the Iranian Iron Age, a subject
that was becoming increasingly important for my excavations in southeastern Arabia. Over
the years, I have returned to this paper and sent it to scholars for their opinions. Professors
Haerinck (Ghent), the late Dr Moorey (Oxford), Dr. Cameron Petrie (Cambridge) and Dr.
Lloyd Weeks (Nottingham) all provided very useful criticisms. In addition, I would like to
thank two anonymous reviewers who made many useful suggestions for improving the
text. Any errors that remain are my sole responsibility.

2 For a complete bibliography on work at Hasanlu see Dyson and Muscarella 1989:
Footnote 1, Dyson 1997 and most recently Muscarella 2006.
Fig. 1. Northwestern Iran showing the main sites mentioned in the text (Google Earth).
care with which the site was excavated that so much has been written on it and, even after 30 years, it is still possible to suggest new alternatives on its history. In this paper, we examine the Iron Age levels at Hasanlu, particularly period IV, and suggest on the basis of both methodological and substantive issues that a revision to the chronology is necessary.

Why is Hasanlu IV so important?

Hasanlu IV follows from Hasanlu V and consists of three distinct phases labeled IVC, IVB and IVA with IVC as the earliest. In the first two phases the citadel at Hasanlu undergoes a building program in which several large courtyard buildings were constructed. For two reasons these buildings have played a critical role in the scholarship of Iron Age Iran. Firstly, they were destroyed by a fire and thus present a sealed deposit. The buildings were full of artifacts and the destruction was clearly sudden and occurred at a time when people were living in the citadel and had stored both everyday and elite goods. The bodies of the slaughtered inhabitants of Hasanlu were strewn throughout the buildings and are ample testament to the ferocity of this event. Scholars have used the artifacts from this destruction level as an important corpus against which other material, most of which in Iran comes from much less scientific excavations (e.g. Sialk), can be compared and dated.

While much (most?) of the Hasanlu IVb material remains unpublished, several important catalogues have appeared and these are, justifiably, the most commonly referenced component of the Hasanlu IVb assemblage. These include publications on ivories (Muscarella 1980), some of the bronze and iron weapons and implements (Muscarella 1988) and the cylinder seals (Marcus 1996). These are exemplary publications and provide the excavation context for each artifact. These publications also make it clear that the vast majority of artifacts come from the southern side of the citadel, particularly Building II. Building III, an isolated columned hall on the northern side of the citadel contained remarkably few artifacts. According to Muscarella (1988: 24), no ivories and only 5 out of the 140 bronze and iron objects presented by him came from Building III (Muscarella 1988: Nos, 1, 2, 4, 39 and 64). Of the 96 cylinder and stamp seals and impressions published by Marcus, only 11 come from Building III, the vast majority, once again, coming from Building II (Marcus 1996). We emphasize this disparity here not simply to show the distributional differences in
the Hasanlu IVb corpus but also because it has serious implications when we consider the chronology of the site.

The second reason why Hasanlu IVb is considered so important is that its destruction has been asserted by the excavators to be irrefutably dated to circa 800BC on the basis of carbon-14 dating. To quote Muscarella and Dyson: ‘The general range of IVC-IVB covers the last quarter of the second millennium to 800 BC and no later’ (emphasis added, Dyson and Muscarella 1989:10). Thus the presentation of artifacts from Hasanlu IVb invariably carry a chronology of before 800 BC and this date is now widely considered the terminus of the Iron Age II period and the beginning date of the Iron Age III period.

The heavy reliance on carbon-14 dating has added much weight to Dyson and Muscarella’s arguments in the eyes of other scholars, most of whom prefer to rely on the interpretation of carbon-14 dates than the chronological inferences of the artefacts. For example, Pecorella and Salvini write that “this period (IVb) ended with the sack and the fire of the city. The date of this event is fixed by radiocarbon datings around 800BC” (Pecorella and Salvini 1982: 9); Burney comments that “Historical factors as well as radiocarbon determinations join in indicating such a date. Stylistic analyses of metalwork or other artefacts must defer to such evidence” (Burney 1994b: 32) while Dyson himself and de Schauensee write in their analysis of the horse bits from Hasanlu IVb that “The objects found at Hasanlu are firmly dated by C14 to the ninth century BC; therefore, the chronological span of the parallels usually dated in Assyria and Luristan to the eighth and seventh centuries will now have to be extended back into the ninth century BC” (de Schauensee and Dyson 1983: 76).

As hinted by Burney (above), epigraphic data has also influenced our understanding of the chronology of Hasanlu IVb’s destruction. The basic argument attributes the destruction to the campaigns of Ispuini and Menua in 810-805BC (Pecorella and Salvini 1982: 8-10). According to those who follow this interpretation there are three cultural-historical factors that correlate the Hasanlu destruction with these campaigns. These can be summarised as: (1) it was impossible for Hasanlu IVb not to be destroyed given the obvious Urartian military presence in the surrounding areas at Qalatgah, Tastepe and ‘Ain-e Rum (Pecorella and Salvini 1982: 9-10); (2) the pro-Assyrian nature of the material culture of Hasanlu and the absence of Urartian material suggests that Hasanlu IVb ended before the advent of Urartian political domination (Dyson & Muscarella 1989: 3, 19); and (3)
that Hasanlu is to be identified with Meshta of the Karagünduz inscription and thus was certainly destroyed in the Ispuini and Menua campaigns.

The combination of carbon-14 and cultural historical data form a neat, self-enclosed argument that has only once been previously challenged. In two papers Medvedskaya suggested that the destruction of Hasanlu IVb should be attributed to Sargon II of Assyria and be dated to 714BC (Medvedskaya 1988, 1991). Her paper brought a swift rebuke from Dyson and Muscarella who re-iterated the case for a c. 800BC date (Dyson & Muscarella 1989). The disparity between these two interpretations was largely a result of the type of evidence on which each argument was based. Medvedskaya focused on artefactual evidence such as helmets, horse-bits and weapons that she suggested were more likely to be eighth than ninth century BC in date. The evidence from carbon-14 determinations was largely ignored. To a large extent, Dyson and Muscarella did not question that some of these artefact styles may date to the eighth century; rather they argued that the stylistic trajectory of the artifacts must be altered according to the carbon-14 dates back into the ninth century BC.

For two reasons we challenge an 800 BC date for the objects that have been published as coming from Hasanlu IVb. Firstly, we examine the methodological basis for the cultural historical arguments that have admittedly been of secondary importance in this debate. Despite this, we believe it is important to review this information since it highlights a major methodological issue in the study of the Iranian Iron Age. Secondly, and most importantly, we re-examine the carbon-14 dates from Hasanlu. These have been at the forefront of the scholarship on this site and we show that not only are the dates of little relevance to the majority of Hasanlu IVb artifacts but they do not, in any case, irrefutably support an 800 BC date.

**Cultural-Historical Evidence**

The evidence of the various historically attested campaigns of both the Assyrians and Urartians has played a significant role in the interpretation of the archaeological data from Hasanlu IVb. The interplay between material culture, imperialism and Hasanlu’s destruction can be distilled into one argument: Hasanlu IVb could not have existed after 800 BC because of the Urartian control of the surrounding region and, related, the “Assyrianizing” character of Hasanlu IVb material culture would not have been tolerated by the Urartians who were engaged with Assyria in a series of devastating wars.
Hasanlu IVB and the Urartian Empire

Pecorella and Salvini write “Qalatgah is only 20 km west of Hasanlu and there are no important geographical barriers between the two cities; it is, therefore, difficult to believe that the Urartians could have built that fortress if the city of Hasanlu and her political and military organisations still existed” (1982:11). This is followed by Dyson and Muscarella (1989: 19) but is left open to question by Burney who raises the possibility that Hasanlu may have enjoyed a degree of independence until being subdued by the campaigns of Argishti I against Mana shortly after 800 BC (Burney 1994b: 32).

The underlying and, we suggest, arguable assumption in these interpretations is that destruction is the only archaeological correlate of political subjugation. It is undeniable given its location, that by 800 BC Hasanlu was under the political domination of Urartu, whether it was destroyed or not. The existence of a fortress at Qalatgah does not, however, necessitate the view that Hasanlu IVb must have been destroyed. Throughout the ninth century BC the Hasanlu citadel was without a continuous fortification wall (Dyson & Muscarella 1989: fn 116). It was indefensible and would have provided little resistance to any military offensive. At the same time, Hasanlu was an economically important polity, the inhabitants of which carried out long-distance trade, manufactured and distributed iron products, and created unique and regionally-based symbols of power and authority. To allow the settlement to continue and to extract economic benefits would seem more advantageous to the Urartians than destroying the settlement.

This was certainly a policy that the Urartians seemed to have implemented elsewhere in the region of Hasanlu. The most obvious example is Dinkha Tepe. Despite the fact that Muscarella states that it was ‘most probably’ destroyed by Urartians around 800BC (Muscarella 1994: 140) there is no compelling evidence for a destruction at this site which also lies within sight of Qalatgah (Muscarella 1994: fn 6). It cannot be argued, as Muscarella has done (Muscarella 1994: fn 6), that the absence of post-Late Western Grey Ware or Iron Age III material at Dinkha Tepe suggests that the settlement did not continue past 800BC since the 800BC end date for LWGW/Iron II material is based on that date serving as the end-date for Hasanlu IVb, the ceramic corpus of which was originally used to define the LWGW horizon (Muscarella 1994: 140; Cuyler-Young 1965: 74-77). Put simply: this argument is circular; there is no independent data that supports the assertion that Dinkha Tepe was destroyed by the Urartians.
An alternative perspective would be to emphasize that the most obvious measure to keep such towns such as Dinkha Tepe and Hasanlu under control was to place within striking distance a fortified garrison that would have served as a reminder of the consequence of revolt. Qalatgah would serve such a purpose. Furthermore, the presence of possible Urartian inspired military equipment at Hasanlu IVb (maceheads and helmets: Dyson and Muscarella 1989: 19) might be interpreted as evidence for a small Urartian garrison within Hasanlu that ensured the loyalty of the local inhabitants.

Urartian Imperialism and Material Culture Continuity

Dyson and Muscarella place much emphasis on the presence of Assyrian, or Assyrianising, material culture and the lack of Urartian material culture as evidence that Hasanlu IVb never existed during the period of Urartian control. They write that Hasanlu IVb was ‘full of’ Assyrian related material (Dyson & Muscarella 1989: 3) while of the 7000 objects recovered ‘several may possibly have an Urartian connection’ (original italics, Dyson and Muscarella 1989: 19). There is little point in re-analysing all aspects of the material culture at Hasanlu IVb and attempting to quantify to what extent they are influenced by Assyria or no. The issue is whether or not foreign artistic traditions can exist under potentially hostile political hegemony. In the context of ancient Near Eastern imperialism many cases exist that would support a positive response to this question. For example, at the height of the Greco-Persian wars, Greek pottery is imported in some quantity into Achamenid controlled Egypt and the Levant (Perreault 1986) even into the capital of Susa itself (Beazley 1963: No. 1677). It would seem unlikely that an ivory-worker or a bronze-maker at Hasanlu would radically alter their artistic products because of changes in political control.

An example of the dynamic interplay between material culture and political/ethnic affiliation somewhat close to Hasanlu serves to reinforce this point. Agrab Tepe lies within sight of Hasanlu and was excavated by Muscarella and promptly published (Muscarella 1973). Although the chronology is uncertain it is generally thought that the settlement was founded after Hasanlu IVb was destroyed when the Urartians controlled the Solduz Valley. Muscarella comments on the inhabitants of Agrab Tepe: ‘Were they Urartians? Indeed the ceramic evidence informs us that Urartian pottery was used at Agrab Tepe though it does not tell us that Urartians either built
of staffed the fort; the pottery could have been imported by non-Urartians’ (Muscarella 1973: 69). More recently, however, he refers to the site as an ‘Urartian settlement’ (Muscarella 2006: footnote 2). Muscarella’s uncertainty concerning the inhabitants of this site reflect the pitfalls in equating material culture with ethnicity and political affiliation. A quick analysis of the ceramics from Agrab Tepe bears this out. Using as a sample the parallels offered by Muscarella for some of the pottery and accepting, momentarily, that pottery parallels are meaningful in terms of cultural interaction it is abundantly clear that the inhabitants of Agrab Tepe maintained contacts with wide ranging settlements spread throughout Iran and Urartu (Fig. 2)3. Their cultural tendency, therefore was not towards Urartu or Assyria or western Iran; it rather reflected the sort of cosmopolitan mélange that one would expect in a region that was so strategically positioned between central Iran, western Iran and the Caucasus.

Only with politically-charged material culture can a case be made that it might be identified with a foreign political framework and thus may need to be, in some way, expunged during imperial episodes. Cylinder seals

---

3 This is represented graphically by giving one value to each time a parallel was offered by Muscarella for the ceramic parallels on pages 54 to 59.
could possibly form such a group of material since they might be tied to a particular administrative system and are used as such by Dyson and Muscarella to support their case. Two points are relevant here. Firstly, the publication of the cylinder seals from Hasanlu IVb documents only 6 typical or imported Assyrian cylinder seals out of 96 seals and seal impressions (Marcus 1996: 46, Curtis 2005: 115). Given that Assyrian cylinder seals are also reported from the Urartian stronghold of Karmir Blur (Barnett and Watson 1952: 145), no emphasis can be placed on these as evidence of the non-Urartian (or Assyrianizing) nature of Hasanlu IVb. In addition, as Curtis, has recently noted, Assyrian material is widespread in western Iran at this time and continues into the Iron Age III period (Curtis 2005: 115-116). Secondly, even if one is to view these 6 cylinder seals as evidence of the pro-Assyrian stance of the elites of Hasanlu, it would be important to note that cylinder seals can continue in use long after dramatic shifts in political affiliation and control. The continued use of Neo-Babylonian stamp seals by early Achaemenid rulers in Babylonia is an obvious example of this phenomenon (Zettler 1979).

Hasanlu=Meshta?

All these arguments remain invalid, however, if one accepts Salvini’s identification of Meshta with Hasanlu (Salvini 1979: 177). This identification is based on the assumption that Hasanlu was one of the largest sites in the region at that time and that it was destroyed around 800BC. On the basis of these arguments such an identification is weak. Burney, following Dyson, has noted the existence of many other large mounds in that region which may be identifiable as Meshta (Burney 1994b: 32). The identification of Hasanlu with Meshta based on the destruction of the site can also not be used as evidence since there is no independent data that supports an 800BC date for the destruction (below). Furthermore, the Karagünduz stela of Ispuini and Menua stresses the victory of Meshta as more important than the victories against Qua, Saritu, Nigibi and the attack against Parsua. It notes the use of war-chariots, cavalry and infantry against the city (Pecorella and Salvini 1982: 10). Does such a picture really tally with the destruction of the

---

4 This is not accepted by most scholars. See Kroll (1995: 76) who follows Diakonoff (1985, 69) for an alternate identification of Meshta with Tashtpe.
unwalled citadel of Hasanlu? It is difficult to accept that the taking of Hasanlu IVb would overshadow those of several other cities in the region, some of which may well be larger and more heavily defended than Hasanlu. For example, Kuh-i Chorblah is a major fortified settlement located less than 15 kilometers from Hasanlu. On the basis of the grey ware at the site it is contemporary with Hasanlu IVb (Kleiss 1973: 29-30, Kleiss and Kroll 1977: 78) and while we know little of ancient Nagadeh because of modern building it is likely to have also been a substantial Iron Age settlement.

Summing this evidence together we can see that the tendency to view destruction as the only archaeological correlate of imperialism has had the potential to skew the interpretation of Urartian control of Hasanlu and its environs. As noted by Sinopoli, ancient empires can employ a multitude of strategies to control and exploit conquered areas (Sinopoli 1994: 169-172) and initially destroying settlements would seem to be one of the less productive techniques for doing so. In reference to the Urartian Empire, these issues have been illuminated in a magisterial fashion by Zimansky (1995) who noted that “the apparent coherence of Urartian material culture is an illusion created by our own scholarly priorities” (Zimansky 1995: 104). Having stated this, he dismisses, however, a post-800 BC destruction for Hasanlu saying that its continued existence past the time the Urartians controlled the Solduz Valley would speak to ‘even more internal diversity in Urartu than I dare argue’ (Zimansky 1995: footnote 5).

Of course, there is no question that Hasanlu is destroyed and the weight of epigraphic evidence would point to the Urartians who controlled the region of Hasanlu for some of the eighth century BC. The question remains, however, when does the destruction take place? To answer this we need to examine the relevant carbon-14 data.

Radiocarbon Data

Dyson and Muscarella’s suggestion that all forms of other evidence must defer to that provided by carbon-14 dates is, in our opinion, the only valid scientific approach for assessing the destruction of Hasanlu. Carbon-14 dates provide unbiased results of the age of a charcoal sample. A review of the carbon-14 data from Hasanlu suggests, however, that those who have accepted as fact that the Hasanlu IVb assays irrevocably argue for a c.800 BC destruction have neither considered the archaeological or statistical implications of the radiocarbon data.
Hasanlu IVb dates (Table 1)

Thirty carbon-14 dates from Hasanlu IVb have been published. Only a handful of these might be considered as arguably relevant to the destruction of this level since most of the charcoal samples relate to the construction of the buildings. This is clearly noted by Muscarella and Dyson and is important since, by and large, these dates reinforce the conclusion that some of the buildings were probably built by c. 1000 BC. To date a destruction of a settlement it is necessary to focus on short-lived organic samples (eg. seeds) that are likely to have exited the carbon cycle, for example have been harvested, and entered the archeological record shortly before the destruction. Muscarella and Dyson publish 9 samples which, they acknowledge, can be used for such a purpose and it is these that we will focus upon.

We have noted above that the vast majority of Hasanlu IVb material culture published with a terminus of 800BC comes from Building II and adjacent buildings on the southern side of the citadel. However, there are no short lived organic samples from this area of the citadel that could be considered as relevant to the destruction. In fact, all the cereal seeds and grapes that might conceivably be used to date the Hasanlu IVb destruction are from Burnt Building III — an unconnected building in the north of the citadel. There are no construction dates published for this building, therefore it is impossible — on the basis of the radiocarbon data — to link the chronology with that of the other columned buildings. Furthermore to our knowledge there was no stratigraphic link between the destruction of Building III and the destruction of the main group of columned halls.

On the basis of these factors alone it would be questionable to use the Building III samples to date an event most obviously attested on the either side of the citadel. However, there are other factors that cast serious doubt on whether the short lived samples from Building III bear any relevance to the destruction of Hasanlu IVb. Young (1966: 59) argues that Building III was a domestic residence; Piller (2004: 59) writes of bronze working while Dyson (1989: 111) notes the presence of a kitchen and storeroom (Dyson 1989: 111). At least two of these functions, would involve activities that were likely to have resulted in seeds being carbonized and entering the

---

5 Dyson and Musceralla (1989:9) state that “Thirty out of thirty-one dates run for period IVB have ranges that precede 800B.C.). In their Table 1 only 29 dates from period IVB are listed. In Figures 4-9 to which they refer only 29 dates are also listed.
archaeological record. This is explicitly noted in the original Radiocarbon reports (Stuckenrath 1966: 348-360) for the Building III samples: P860 is noted as coming from south of an oven while P863 is said to be near a grinding stone. These are two locales from which cereals as a matter of course would have entered the archaeological record, thus negating the argument that such samples are related to the destruction of the building.

Against this one must admit that the presence of dried grapes (P 970) would be considered by most archaeologists as relevant to an event like a destruction since they are unlikely to have existed in the archaeological record for any amount of time. Here, however, we face a fundamental problem: if the grapes are not carbonized -and this seems to be the case since they are differentiated in the original Radiocarbon reports charred grapes — then how is it possible to relate them to the fire that destroyed Building III — let alone the fire that destroyed buildings on the other side of the citadel? Put simply: they are not carbonized and cannot therefore be considered as relevant to the destruction of Building III.

All of these considerations render any attempt to date the main citadel Hasanlu IVb buildings on the basis of the Building III dates as fundamentally flawed. Let as assume, however, that there may be some unpublished aspect of the stratigraphy of the site that would allow us to negate these objections. Let us move forward then and analyse the Building III dates. In doing so we will only quote the 2-sigma probability range for each sample. The rationale for this is that the 1-sigma range quoted by Dyson and Muscarella only encloses 68.3% of the sample’s range thus there is a 1-in-3 likelihood of the true-date of the sample not being reported. The 2-sigma range, which encompasses 95.4% of the calibrated sample, has only a 1-in-20 likelihood of not reporting the true-date. In a discussion such as this, it is, therefore, necessary to quote the 2 sigma range date. All the dates are calibrated with INTCAL04 the latest internationally agreed atmospheric dataset (Reimer et al. 2004).

Even if we accept a relationship between these samples, the destruction of Building III and the destruction of the buildings on the southern side of the citadel, it will be clear to the reader that the samples do not permit the conclusion that this event happened before 800 BC\(^6\) (Table 1). Half of these

---

\(^6\) Ideally we could combine these dates together — that would serve to reduce the error and make for a tighter range for both clusters. While this would be justified statistically, it is not justified archaeologically; ie. we have no \textit{a priori} way of knowing that these diverse samples might result from a single anthropogenic event such as a grape or cereal harvest.
samples have probabilities that extend into the eighth century BC. To put it another way: the true-date of these samples could be later than 800 BC supporting a conclusion that the destruction took place sometime in that timeframe.

In a unique and even more important position is P865. This sample was originally published as ‘Charred wheat from floor 3 of citadel. Period IVB.’ (Stuckenrath et al. 1966: 350). As charred wheat it might have some relevance for dating the destruction level. The calibrated range of this sample practically excludes a date of 800BC for the final destruction of Hasanlu.
IVB. In their rebuttal of Mevedskaya, Dyson and Muscarella list this sample with the Hasanlu IIIB dates but they label it as ‘IV grain’ (Dyson & Muscarella 1989: 5). It is difficult to understand what this means. If it stratigraphically belongs to IVb, then it belongs to IVb — it cannot be placed into a later period on the basis of its age. Unless detailed evidence is available — and it may exist but not be published — that convincingly overturns this attribution then the sample must be considered as relevant to Hasanlu IVb as originally published. As noted, the sample practically excludes the possibility that the site was destroyed before 800 BC.

The carbon-14 samples from Hasanlu Burnt Building III do not, therefore, reinforce the chronology suggested by Dyson and Muscarella nor do they rule out a destruction at some point in the eighth century BC. We would summarize the reasons for this conclusion as follows:

(1) Only Building III has provided samples that might be relevant to the destruction; this building is located at some distance from the main group of buildings and there is no published evidence of it being stratigraphically linked to the other citadel buildings that have provided the bulk of the Hasanlu IVb material;

(2) the function of Building III casts doubt on the relationship between the charred grain samples and the destruction of the building;

(3) the carbon-14 dates do not, in any case, reinforce an 800 BC date for a radiocarbon event in this building or anywhere in the citadel; and

(4) a sample initially published as coming from Hasanlu IVb almost excludes the possibility of this level coming to an end at 800 BC. The stratigraphic position of this sample has not been convincingly re-assigned in any publication.

Stratigraphic Implications

The Hasanlu IVb destruction must have taken place before the Hasanlu IVa occupation of the main citadel and obviously before the Hasanlu IIIb fortification system, with its clear Urartian associations, was constructed. As few objects from Hasanlu IVa have been published it is difficult to assess when this period began. Once again, we are reliant on carbon-14 data. Three samples are reported from Hasanlu IVa. In examining these dates Dyson and Muscarella conclude ‘The dates from Hasanlu IVa contexts consistently indicate a range in the earliest eighth century, preceding the main cluster of
IIIB dates and following the end of the IVB dates’ (Dyson & Muscarella 1989:8). By stating that these dates begin in the early eighth century and follow the IVB dates the results are, therefore, used by Dyson and Muscarella to reinforce the conclusion that Hasanlu IVb ends around 800BC. The re-calibrated 2-sigma carbon-14 dates from Period IVa do not support this conclusion (Table 2). Firstly, as these samples are all run on wood charcoal — not seeds — and as Hasanlu IVA is a squatter occupation on top of destroyed buildings it is very likely that this wood was re-used from the Hasanlu IVb buildings. Even if we disregard this caveat, the calibrated ranges of the samples do not permit one to conclude that Hasanlu IVa started around 800BC. In fact, the probability ranges would only allow one to conclude that Hasanlu IVa occurred sometime in the 8th century BC — certainly not, therefore, reinforcing an 800BC destruction for Hasanlu IVB.

<table>
<thead>
<tr>
<th>Sample Code</th>
<th>14C Age</th>
<th>2 sigma probability method</th>
<th>Relative contribution to probabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>P2159</td>
<td>2630±60</td>
<td>920-741BC</td>
<td>.85</td>
</tr>
<tr>
<td></td>
<td></td>
<td>689-663BC</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td></td>
<td>647-549BC</td>
<td>.10</td>
</tr>
<tr>
<td>P2380</td>
<td>2540±50</td>
<td>808-510BC</td>
<td>.99</td>
</tr>
<tr>
<td></td>
<td></td>
<td>435-427BC</td>
<td>.01</td>
</tr>
<tr>
<td>P2383</td>
<td>2600±50</td>
<td>894-872BC</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td></td>
<td>848-732BC</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>691-661BC</td>
<td>.09</td>
</tr>
<tr>
<td></td>
<td></td>
<td>650-544BC</td>
<td>.19</td>
</tr>
</tbody>
</table>

When and by whom was Hasanlu IVB destroyed?

Short of direct inscriptive evidence from the site, it is impossible for archaeology to answer this question. The carbon-14 data from Building III, if it is related to the destruction manifested on the southern side of the citadel — and there is no published evidence to support such an assertion —, might conceivably be used to address the ‘when’ aspect of this question. The most that one could say is that Hasanlu IVb was likely destroyed sometime after 800BC. The conclusion that this occurred in the first half
of the eighth century would be supported by the probability distributions of the carbon-14 dates. Ultimately though, it must be concluded that the carbon-14 samples collected from Hasanlu are not optimal for addressing this question. Given new developments in radiocarbon dating that were not available when the site was excavated, it is possible that this issue could be redressed now. The most productive avenue would be dating collagen from the skeletons of those who perished in the IVB destruction since there is no question of their chronological relationship to the event.

The ‘who’ aspect of the question is unanswerable. Of more import for our understanding of how the Urartian empire worked, however, is the realization that the citadel at Hasanlu IVb likely continued in existence past the time when the Urartians controlled the Solduz Valley. It itself, this should prompt a re-assessment of how scholars have approached the archaeological correlates of the rapid Urartian expansion that characterizes the period from 850 to 650 BC. Such a task lies outside, however, the scope of this paper.

Finally, as noted above, the only challenge issued to the dating of Hasanlu was that of Medvedskaya who noted that many of the Hasanlu IVb artifacts have eighth century BC parallels. The data presented in this paper clarifies how such parallels could have existed and throws into question the broader reconstruction of the Iranian Iron Age sequence. Unless new data is forthcoming from Hasanlu IVb that re-affirms an 800BC date the entire sequence of the Iranian Iron Age and floating sites such as Sialk will need to be re-assessed. In doing so, I suspect the regional character of the Iranian Iron Age will come to the fore and the pitfalls of using the Hasanlu stratigraphic sequence to order the entire west Iranian Iron Age will be exposed.

Bibliography


Beazley, J.D., 1963. Attic Red Figure Vase Painters, Oxford.


Dyson, R.H. & Muscarella, O.W., 1989. Constructing the Chronology and Historical Implications of Hasanlu IV, Iran XXVII: 1-27


—, 1991. Once more on the destruction of Hasanlu IV: problems of dating, Iranica Antiqua XXVI: 149-161


