

ARCHEOLOGIE

WRIGHT, G.R.H. — Ancient building technology, 3: Construction. (2 vols.) (Technology and Change in History, Vol. 12). Brill Academic Publishers, Leiden, 2009. (Vol. I: 368 pp., Vol. II: 288 pp.). ISBN 978-90-04-17745-1. € 184,-.

This volume completes an account of the technology of ancient building construction although, as stated in the introduction, it was not intended to deal with the building science that lies behind it or the structural systems in which it is embodied. For these the reader is referred to A.G. Gleeson's "Building Science" and to my "Developments in Structural Form". As in volumes 1 and 2, ancient is interpreted as spanning from man's first attempts, many millennia ago, to fashion for himself a protected depression in the ground and later to roof it, up to late antiquity in the early Byzantine and Sassanian worlds in the sixth century AD. Geographically, the main focus remains the Middle East and the countries around the Mediterranean that were home to successive early civilisations. Its aim is modestly stated to be little more than a convenient reference source for archaeologists in the field though it certainly merits wider use.

The introductory first volume presented an excellent chronological overview of the whole development in terms of the characteristic forms of construction at different periods but with some reference also to such matters as the available evidence for them and the social, economic, and political backgrounds. The second volume turned directly to technology with an equally fine survey, as far as I am able to judge, of the materials used at different times and in different places, most of them exploiting whatever was readily accessible nearby whether vegetable or mineral and whether it could simply be gathered up or had to be cut down or quarried and then shaped or mixed with others or made more durable by fire. A separate chapter was devoted to each material rather than adopting again a single chronological approach for all. Simpler manners of use such as different bonding patterns for walling were also described. The range covered was vast and has called for wide reading by the author of the available literature to supplement his own observations while undertaking archaeological investigations and conservation.

Volume 3 has also been based to a considerable extent on a painstaking critical study of the relevant literature, though betraying less familiarity with recent studies of Roman developments. So many aspects of both the construction process and the resulting structures are covered that the author is, for this also, to be thanked for the effort taken. This literature based approach has again allowed him to draw attention to matters that call for further investigation and to pose relevant questions.

The precedent set by volume 2 has also been followed in two other ways. One is that the text is again copiously illustrated with photographs from a wide range of sources and with numerous drawings, some of these by the author himself but many of them reproduced from other sources. A considerable number are helpfully captioned at considerable length to supplement the main text. Being bound separately and suitably cross referenced, they can easily be viewed with it open alongside. The other is that the text is again not organised in a single chronological sequence but deals in turn

with different relevant topics. Now however it is only the later chapters that are devoted to individual chronological accounts of the uses of different materials following on fairly directly from the accounts in volume 2. The first three chapters are devoted to broader matters; chapter 1 to preparatory measures, chapter 2 to setting out of the intended building on site, and chapter 3 to the organisation of the site and necessary ancillary works. Chapter 4 then turns to wood construction, chapter 5 to stone construction, chapter 6 to brick construction, and chapter 7 to Roman concrete construction.

Preparatory measures cover all that has to be done before building commences and the surviving evidence for it. The chief evidence is provided by surviving drawings. Further evidence includes records of their use and evidence presented by the building itself. There, is for instance, some such evidence in classical Greek temples that the design was actually worked out in situ as construction proceeded, being effectively part of the setting out process.

As happens today, setting out was usually the transfer to the site of indications of intentions previously established in order to guide building operations when they did commence. After descriptions of surveying procedures, useful accounts are given of setting out for normal construction on rectangular, circular, and centralised polygonal plans, noting that all guiding marks had to be clear of what was to be built so that they were not hidden as work proceeded. A briefer account follows of the very different procedures that had to be adopted to guide the rarer practice of cutting away the rock, necessarily from the top downwards, to reveal the desired form within an existing formation.

The excellent discussion of site development and necessary ancillary works ranges more widely, embracing the supply and pre-dressing of materials and their transport to site, preparation of the site itself typically involving clearances and levelling and perhaps excavation, provisions for access and sometimes the manoeuvring into position of very massive blocks which for long was possible only by such means as levering and cribbing and temporary earthworks but in the sixth century BC became possible in Greece by direct lifting. By the first century BC the building industry is said to have become akin in many ways to that of today. This discussion ends by considering the centering required for constructing large Roman concrete domes. But, since this is considered again in chapter 7, comment on it will be held back here.

Turning now to the chapters on materials, little was said about the use of wood in volume 2. Chapter 4 is wholly devoted to it and opens with a sceptical reference to the frequently expressed view that early wooden structures served as models for later construction in other materials, a notable example being the suggestion that there were wooden prototypes for some features of the classical Greek temple even though there are no surviving examples or other evidence of such prototypes to confirm this. Taking an approach based more directly on demonstrable fact, a distinction is drawn between directly load-bearing structures and framed ones and it then looks first at modes of all-timber construction including ancient timber circles and then at two modes of mixed construction. In one of these some load bearing elements such as roofs or columns are of timber while walls are of a different material and in the other wood is used to reinforce a structure of a different material, usually as a tie but sometimes as a strut. Trusses are mentioned briefly in connection with roofs but a fuller treatment, more in keeping with the

attention given to beams and arches, would have been welcome.

Chapters 5 to 7 are devoted in turn to the uses of stone, brick and Roman concrete and the structural forms to which they gave rise. Unlike wood, these materials all have virtually no tensile strength. This limited the uses of all of them in much the same way to situations where compressive strength largely sufficed. It is therefore convenient to consider these chapters together including also the discussions in chapter 3 of the Pantheon and later large dome construction in brick.

Most attention is given to stone construction, duplicating to some extent what had already been said in volume 2 but amplifying it. It moves first from rubble masonry used mostly for domestic building to its complete opposite in scale, the megalithic tradition of Western Europe obviously calling for the highly organised resources of sizeable communities and serving more the needs of their dead. It then entailed numerous innovations in transport, procedures for setting the massive blocks in place, and even some limited prior dressing of them. But its influence on developments elsewhere, notably on the development of dressed stone masonry in early dynastic Egypt, remains an open question. Initially, at Saqqarah, this masonry was just a facing of small blocks dressed to fit closely only near the face. But it developed into more closely fitting large block Pharaonic masonry, the characteristics of which are described in detail including the time-saving procedure of dressing blocks largely in situ as they were assembled. Meticulously detailed Greek ashlar masonry incorporating cramps and dowels to ensure solidity is discussed next, though surprisingly without any reference to superb records of what was exposed of this detailing during the recent partial dismantling of the Parthenon and other major structures on the Athenian acropolis as an essential prelude to their restoration.

The discussion of uses moves first from trabeated to arcuated forms, the trabeated being represented first by megalithic roofing slabs supported by similar slabs serving as walling and then by the finely dressed slabs of Pharaonic construction which were prone to fail as a result of the tensile weakness of the under surface. It then turns to the simple arch and its lateral extensions in the barrel vault and the groined cross vault and finally to the dome which, as best seen in the Mycenaean tholos, was initially constructed of corbelled horizontal rings gradually closing it to the crown and stabilised by earth piled up against them on the outside, and only later in the "true" dome constructed of wedge-shaped voussoirs.

There is a similarly competent discussion of brick construction in chapter 6. Initially, from Neolithic times onwards, the bricks were unfired but later, in Mesopotamia, fired bricks were introduced. They remained small and easily handled but at the price of there always being a need for efficient bonding and mortar bedding to transmit stress effectively from course to course. Walls (at least those that have survived) were so much thicker than stone ones that no structural problems would have arisen if foundations were adequate. The risk that they might not be was sometimes countered in Egypt by making the beds alternately concave and convex. Small span arches and vaults of pitched bricks could be constructed without centering and early ones preceded their stone counterparts. Some much later ones exceeded in span anything achieved in stone. This chapter

ends with a good account of Roman and Byzantine brick masonry, the former being characterised by fine mortar bed joints in sharp contrast to joints often as thick as the bricks in the latter. Although there is no mention of this, these thicker joints made it easier to give arched and vaulted forms any desired geometry but they also slowed down stiffening of the brickwork.

The chapter on Roman concrete and the related discussions in chapter 3 were, for this reviewer, the most interesting because, in concentrating on the dome, they have had to consider static behaviour and construction feasibility — topics which the author seemed to have wished to avoid. He has made a valiant attempt to face up to them but has not quite succeeded, perhaps partly because he seems to have referred only to chapter 7 of *Developments in Structural Form* when the section on the domical shell in chapter 2 and the one on structural aspects in chapter 4 are equally relevant. (It should incidentally be mentioned here that his page references to this are all to the first edition of 1975, the corresponding pages in the revised edition of 1998 being a few pages later)

Two matters chiefly call for comment. One is the static behaviour of a masonry dome and more particularly that of the domes of the Pantheon and Hagia Sophia. The other is the related topic of the formwork and the centering used in their construction.

The chief failing is that two important aspects of the static behaviour of a dome are ignored — the radial compressions that support the dome's weight and the dependence of its behaviour not only on its own characteristics but also on those of its support. In the accompanying illustration [296] both aspects are shown without distinguishing identification. One is that of a thin shell fully able to resist tension and having frictionless purely vertical support. Its stability arises from a balance between the horizontal tensile resistances of its lower part and the radial compressions arising throughout. Cracking of the region under tension occurs when the tensile resistance is inadequate to balance the radial compressions and will lead to collapse. The other is that of a cracked concrete or brickwork dome with normal support. The cracking destroys the circumferential tension. As a result the outward thrusts that the radial compressions will exert must, for stability, be largely balanced by inward thrusts exerted either directly by the support or by circumferential ties above it.

The design and construction of the dome will influence the radial compressions and the shallower profile of Hagia Sophia's first dome will have increased them, thereby resulting in greater thrusts which, as well as earthquake damage, will have contributed to its early failure. But the prime cause of this failure was less the dome's design than the unprecedented design of the support system and the too hasty construction of its upper levels in wide-jointed brickwork which left it unable to exert enough stabilising inward thrust. The Pantheon's drum provided much firmer support for its dome.

At intermediate stages of construction with adequate support there would be similar but smaller tensions in the lower rings and similar smaller compressions in the upper rings to maintain stability. Even when cracking developed in the lower rings with less adequate support there would still be compression in the upper rings to help maintain stability. It is this behaviour that allows centreless construction provided that freshly placed masonry can be prevented from slipping. There are ways of preventing it without local temporary support. Alternatively such support can be provided by purely

circumferential centering which would merely have to be tied back to completed rings below. Such centering, if practicable from other points of view, would be both far lighter and obstruct direct lifting less than would complete radial centering supported by a huge central tower.

It was the statical possibility of such lighter centering that led to my suggesting its use in the Pantheon, though it was never explored in detail in the absence of known evidence for it in the dome itself beyond the indirect evidence of the decision to leave an open eye as the sole source of light which would have made it easier. Nor has the possibility of its use in Hagia Sophia been fully explored. But there is now some more direct evidence in its present (second) dome for its likely adoption. Partial stripping of the skin of plaster and mosaic at the North West during recent conservation work exposed to view the ends of embedded horizontal rings of metal tubes that could have been used to anchor tie-backs. I therefore still see circumferential centering as a more likely choice for these domes than the one favoured by the author.

Since I do not wish to end on a critical note I must add that I consider the book as a whole to be an excellent source for further study of early practice well complemented by its more than usually essential index.

St Albans, December 2010

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JAHN, Beate. — *Altbabylonische Wohnhäuser. Eine Gegenüberstellung philologischer und archäologischer Quellen.* (Orient-Archäologie, Band 16). Verlag Marie Leidorf, Rahden, 2005. (29,5 cm, X, 169). ISBN 3-89646-646-1. ISSN 1434-162X.

This study is a reworked version of a "Magisterarbeit" submitted by Beate Jahn to the Department of Near Eastern "Alttertumskunde" of the Freie Universität Berlin in 1996. Her aim is to arrive at a new interpretation of the house architecture mainly of the Old Babylonian period.

Jahn is well aware of the dangers of reading the sources of the past with the eyes of the present. In order to avoid this (as much as possible) she sets out to assemble the ancient terminology for parts of the house with their own classification schemes and tries to develop criteria which will allow to apply them on the archaeological record. She explicitly avoids to first interpret the archaeological remains and apply the ancient terminology to them based on this interpretation. The process of application of the terms will also not be a one-way process but is meant to be interactive.

The important basic assumption is that there is a certain regularity in the Old Babylonian house plans, which translates into a limited number of types, mostly derived from a basic concept having specific rooms in a specific order.

Choice of the Texts

Although there is a sizeable number of texts mentioning houses and house parts, only a small portion of this is used. The defining criterion is that they must contain indications for a relation with the archaeological record, not just naming a room but connecting it with another one or locating it in the house.

The richest record of terminology in the Mesopotamian texts are of course the lexical lists but they are rejected on the basis of the criterion cited: they list the terms but do not put them in relation with each other or with the house in general. And so *ana ittišu*, the Urra-*hubullu* list of doors and Proto-Kagal are rejected. One could agree with the methodological point of view but it would have been interesting, at the end of this study, to come back to these lists to find out whether their ordering of the terms could, for some parts, be related to the ordering of the rooms in a house or not.

The exclusion of private correspondence, on the same basis, is consequent but, as the author herself states, some references in letters connect a room with an activity, making its function clear.

Clay tablets with a groundplan of a house and names for rooms, are included but there are only two of those giving both elements.

The juridical records are the main source of textual information. They often record the transmission and (summary) description of (parts of) houses in sales, exchanges, inheritances and rents and even donations. Since there is no unified corpus nor even a systematic overview of a corpus, the author used two sources to collect texts. The first one is the Michigan dissertation of S.R. Harris, *Land Conveyance in Old Babylonian Larsa* published in 1983. The second one is the collection of Old Babylonian texts assembled by Johannes Renger in Berlin. The author specifies that she will use only published and translated texts, and on pp. 164-165 they are listed and number just over 160. They come from Ur, Tell Sifr, Sippar and Larsa.

A first remark here is that a chronological overview of the texts per site would have been informative. A second one concerns the limitations of the two sources used. It would not have been too difficult to expand the collection a little by using the dictionaries (which the author does here and there) or by going through text publications and catalogues, a task that was not undertaken in a systematic way.

On the other hand, documents from outside the period are used when they contain information helping to solve a question.

Looking for a text in which parts of a house are listed, the inheritances dividing a house into shares are crucial. The author justly remarks there is a different division in the north, where all parts are equal, and in the middle and the south where there is a preferential share for the eldest son. In Larsa and Kutalla he gets a full extra share, in Isin, Nippur and Ur a supplementary tenth.

Two cases can be distinguished here. The 'total division contract' lists all shares and allows to reconstruct a whole house. These kinds of contracts are found in the middle and south. In Sippar we have the 'single division contracts' giving only one share but here the names of the other brothers are listed and, supposing that all shares are equal, the total surface of the house can be calculated.

Again, this looks promising but the author cautions us that these divisions are most often ideal instead of real. Real houses have irregular shapes, making a clean division of rooms into shares impossible. It is only when we have documents with shares of different sizes, with fractions, sometimes specified as part of a room, that we can suppose we have real divisions. In these cases payments can be made to equal out the shares.

This is of course a crucial point because it determines whether data from a text can be used to recompose a real house. The author cites different hypotheses concerning the reason for and practical working of the theoretical divisions. In all, they seem to represent property rights on a part of the estate rather than executable divisions.

She examines in each case which system, the theoretical or the real was used.

Even from ideal divisions some information can be gained: fractions indicate the number of parts; names for rooms are of course real, even if the measures given were approximate or theoretical.

Sales and exchanges too have to be interpreted with caution. The rounded numbers (1 sar) are suspect: not the precise measure but the sale was the important point.

From the texts a limited group of seven terms describing houses can be assembled: *é.dù.a*, (*é*) *gá.nun.na*, (*é*) *ki.gál*, (*é*) *kislah*, *é ki.šib.ba* and, only in Sippar, *é ki.bur.bal* and *é uš.gíd.da*. A real house could be a combination of different of these terms. For instance (*é*) *kislah* is an open space, often closely associated with an *é.dù.a*, where it is an open working space, possibly in some cases the inner court.

The author divides Mesopotamia in three regions. The south (Larsa, Ur and Kutalla), middle (Nippur, Isin, Marad and Kisurra) and north (Sippar, Babylon, Dilbat and Kish). She considers that when a term appears in one of the cities it is probable that it appears in that whole region. When a term is attested in the north and south then it is interpreted as common Babylonian. The textual corpus of these three regions is also chronologically different: it ends much sooner in the south.

All the regions have architectural remains of houses, sometimes with tablets, but mostly tablets come from the antiquities market.

As to the measurements given in the texts, are they with or without walls? There are indications for both. The author cites different opinions on this subject (Charpin 1986 and 1989, Stone 1981, Van de Mieroop 1989).

Another problem is the first floor: according to Stone there is none in Nippur. If there is one: is it then calculated in the total area or not? An answer will be formulated as a conclusion to the study.

The Doors

Important information is provided by the mention of doors since they are associated with the room behind them. Some types can be interpreted as outer doors.

It is supposed that the order is given coming in through the entrance to the house and the room associated with a door is closed by it.

Archaeology

House plans are taken from five cities: Ur, Larsa, Isin, Nippur and Sippar-Amnanum (which is not, *pace* the author, a neighbourhood of Sippar) representing lower, middle and upper Mesopotamia. The selection criteria for the plans are: at least approximately fully excavated houses with clear connections between rooms. Mostly large houses are studied but also a few smaller ones in order to find how the different parts fit on a smaller area. If possible the plan of the first use of the house is taken, because it represents the basic, unmodified idea.

Out of the 78 house plans produced by Woolley and Malloyan (1976) for Ur eighteen are retained. In Larsa 30 houses were found but only the two completely excavated ones are used. Two houses from Isin, nine from Nippur and two from Sippar-Amnanum. In total thirty-three house plans are used.

In the literature authors such as Heinrich (1975), Woolley/Malloyan (1976), Stone (1987), Miglus (1996) have listed three or four house types among which most prominently the central courtyard house and the chain rooms. These types are the basis for the present typology.

The author distinguishes five types of houses: (1) the “elaborated house with courtyard” usually rectangular, with rooms in the front and a courtyard, and in the back at least two rows of rooms, (2) the “ring of rooms around a courtyard”, (3) the “reduced courtyard house”, a courtyard surrounded on three sides by rooms, (4) the “group of rooms” of irregular shape and (5) the “row of rooms”.

Within the houses eight types of rooms are distinguished: the entrance room, the courtyard, the staircase room, the oven room, the middle door room, the side room, the back room (the largest one of the house) and the rear room (behind the back room). A small room is defined as less than 5 square meters, a very large one as more than 30 square meters.

The thirty three houses are then carefully described per type and the relative position of the room types is deduced.

Finally six tables are given, placing the different houses on scales of size (total, inner room, roofed and storeyed)

Texts

The textual corpus is then analysed (pp. 86-126). Relevant extracts are given, translations are cited but names of rooms and parts of houses are left untranslated, in order to stay as objective as possible until the final synthesis.

Some terms are clear by themselves: *ká tillá/bar.ra* (exterior door), *é.kun₄* (staircase room) and *é im.šu.rin.na* (oven room).

At the end of this analysis nine terms for rooms or parts of a house and two terms referring to the outer door are listed which appear throughout the corpus (from 5 to 13 times) and are thus taken to be ‘Kernbegriffe’. The author prudently points out that the corpus cannot be seen as representative because of the criteria she used to select it but nonetheless the frequency of the Kernbegriffe makes them ‘typische Elemente’.

These ‘elements’ are further divided into the ones that appear only once in the description of a house (*papāhu*, *ekallu*, *šubtu*, *kisallu*, *barakku* and *bābu kawû*) and those that can appear more than once in the same house (*edakku*, *é.ús.sa*, *rugbu* and *bītu*).

The third part of the study is a tentative identification of these nine elements.

For each term a short introduction on the writing and use is given, followed by a summary of the textual information on the characteristics of this room (situation in the house, its door, shape, openness to other spaces, dimensions, order in which it is mentioned, specifics) after which an attempt is made to link it with the archaeological record and finally a discussion is given of previous translations, leading to a (new) proposal. The results concur with the existing translations (*ekallu* ‘main room’, *barakku* ‘outbuilding’, *edakku* ‘side room’ and *rugbu* ‘second story’) but add to their spe-

cific position within the house. For *papāhu* a new translation is proposed: ‘reception room situated behind the courtyard (*kisallu*)’.

Results

After identifying the basic layouts of the different house types and defining the relative position within the house of the rooms and spaces designated by the nine terms the author now proceeds to join both in a final synthesis concerning the Old Babylonian house.

The elaborated courtyard house is to be found everywhere, most examples are from Ur where Woolley, however, did not recognise it.

The division in two parts (front and back) is well attested in the documents: a closed rear part (*ki.tuš*, the living quarters) or in smaller houses a front door and an *é.gal* (a main room). The interpretation of *ki.tuš/šubtu* as a large back room goes against the interpretation of a number of archaeologists who stress the cultic elements in this room.

The *papāhu* could be identified as the ‘middle door room’ and understood as a reception room, contact between the inner and outer spheres.

There is enough evidence to suggest the existence of an upper floor in some cases.

An index would have been handy in order to find all places where the terms under discussion are mentioned, but it is true that the table of contents can easily be used for this.

It is a remarkable coincidence that this study, a Magisterarbeit from 1996 reworked in 1997 and published in 2005, never crossed paths with that of Paolo Brusasco on the Ur houses, defended as a PhD in 1998 and published in the 1999/2000 issue of *Mesopotamia* (vol. 34-35). Neither author obviously knew about the work of the other. It is not our aim here to compare them but it is interesting to indicate that Brusasco studies partly the same material, the Old Babylonian houses in Ur, but from a quite different perspective. He seeks to “introduce a new way of assessing the sociology of these residential areas which compose the Old Babylonian city of Ur” (Brusasco 1999/2000: 5). His perspective is a combination of textual (archival), archaeological and ethnographic material and theories which leads him along wider paths than Jahn’s study. The contrast of the two clearly shows the very prudent approach of Jahn, leading to relatively few but solidly founded conclusions, not extending beyond a basic house shape and the terms used to designate its parts. Brusasco on the other hand reaches conclusions about Old Babylonian families, social organisation and neighbourhood formation.

In conclusion, Beate Jahn is to be congratulated on the painstaking effort she has taken to produce this study. As well from the textual as from the archaeological point of view every angle is covered, all necessary caution taken and pondered deliberation is shown. Even if the results are not spectacular, they are a sound basis for further study. The letters could be taken into account now, as well as data from other periods in a systematic way.

Finally it is to be regretted that the printer of this book added double pages (pages 111 to 116 are inserted twice; after page 148 pages 143-147 are repeated).

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LAPP, N. (ed.) — Preliminary Excavation Reports and other Archaeological Investigations. Tell Qarqur, Iron I Sites in the North-Central Highlands of Palestine. (The Annual of the American Schools of Oriental Research, vol. 56). Oxbow Books, Oxford, 2003. (28 cm, 218). ISBN 0-89757-026-X. £ 60,-.

This volume of the Annual of the American Schools of Oriental Research series edited by Nancy Lapp is rather special as it contains not one monograph but two separate reports. One is an excavation report by Rudolph H. Dornemann on Tell Qarqur, while the second involves a database of Iron Age I sites in the highlands of Palestine by Robert D. Miller. When only the title page of the book is considered this double nature of the volume is rather confusing as both articles are given as one subtitle separated only by a comma. The second article can be regarded as a subtitle of the first title. Another point of confusion might be that volume 56 of the series is the 1999 volume, while the book itself was only published in 2003 and the articles seem to have been finalized after 1999. In all other respects, the volume is a standard Annual of the American Schools of Oriental Research which is a guarantee for a well edited book with a clear layout.

Rudolph H. Dornemann
Seven Seasons of ASOR Excavations at Tell Qarqur, Syria, 1993-1999. p. 1-141

In this part of the book Dornemann discusses the excavation results of the American Schools of Oriental Research (ASOR) campaigns at Tell Qarqur from 1993 until 1999. These excavations are the continuation of the

ASOR excavations of 1983 and 1984 under direction by Dr. John Lundquist. Dornemann states that this article should not be regarded as a final report as excavations are ongoing and post 1999 seasons have revealed additional information. The report should be regarded as a preliminary documentation of the information available in 1999, occasionally supplemented by necessary results from later campaigns.

The report has been ordered into some introductory chapters that include chapters like 'General discussion and historical references concerning excavated archaeological sites in the region around Tell Qarqur' (p. 3-6), 'The archaeological setting for the region around Tell Qarqur' (p. 6-7) and 'Renewed American Schools of Oriental Research Excavations' (p. 7-10). After that paragraphs follow that provide information on the excavation results, i.e. stratigraphy, finds, etc., per period and excavation area. Subsequently, sections on the pottery assemblages of the Early Bronze Age and the earlier Iron Age are present followed by a short report on the botanical remains and some conclusions. An appendix contains a 'Summary report on the phase I analysis of zooarchaeological material' written by Susan Arter (p. 119-131).

In the introductory section Dornemann describes the reasons for choosing Tell Qarqur as research object. One of the main reasons was the potential identification of the tell with the Iron Age site of Karkara/Qarqar known from Assyrian documents that mention the site as the toponym of several battles fought out nearby. In these famous battles the Assyrians stood against troops from a coalition of Syrian and southern Levantine states. The excavations have revealed that Tell Qarqur indeed contained a major Iron Age II site which might be the same as the ancient Qarqar mentioned in the texts. The excavations have, furthermore, shown that Tell Qarqur was inhabited during several other periods, both before and after the Iron Age.

By far the largest part of the article consists of the description of the excavation results (p. 10-105). This part is amply illustrated with excavation photographs, photographed and drawn pottery and occasionally also other discovered objects. A plan drawing of some of the described phases, even if only preliminary, might have added to the understanding of the reader. However, in general the description of the phases and finds is clear and very comprehensible.

In all, this interim report of the excavations at Tell Qarqur is a clear and to-the-point presentation of the excavation results of this important Syrian tell until 1999. The author clearly states that this report is not a final publication of the excavation nor should it be regarded as such.

Robert D. Miller, II
A Gazetteer of Iron I Sites in the North-Central Highlands of Israel. p. 143-218

The article under discussion is the result of Miller's research he was able to conduct during a two and half year stay in Jerusalem. This was possible due to a Junior Scholarship-in-Residence from the Tantar Ecumenical Institute for Advanced Theological Study together with a fellowship from the Samuel H. Kress Foundation (via the W. F. Albright Institute of Archaeological Research) and the W. F. Albright Institute's James A. Montgomery Fellowship. During this stay in Jerusalem Miller compiled a gazetteer of

sites dating to the early Iron Age (IA I) in the north-central highlands of Palestine. This exercise must be seen in the light of Miller's study into the formation of the state of Israel. Miller has, however, made this gazetteer explicitly a representation of the data without any additional interpretations or conclusions (p. 145).

The gazetteer is a synopsis of previous excavations, surveys and reported chance findings. From the acknowledgements printed on pages 147 and 148 the enormous amount of work involved in compiling this gazetteer becomes powerfully clear if this was not obvious from the gazetteer itself. Miller did not limit himself to a compilation of published sites, which would have been a considerable effort in itself. He has also examined unpublished collections from excavations and surveys that were known to have been carried out but that for several reasons had never become fully published. Miller has furthermore supplemented his bibliographic research by hands-on experience in the form of a survey of the West Bank funded by the Catholic Biblical Association's Archaeological Research Stipend. This new information makes that the gazetteer surpasses a simple bibliographic exercise of compiling published data. Unfortunately no information is given as to the type of survey, the method used and the time involved. Neither is it clear from the gazetteer which of the reported sites were visited by Miller himself.

Slightly confusing is the fact that in the article itself the author refers to himself as Robert D. Miller, II while the index refers to him as Daniel Miller, II (contents, p.143). This is of course of minor importance regarding the scholarly significance of the book.

No map except a very general one showing the topographical grids referred to in the gazetteer has been provided (p.149). This map depicts the area ranging from c. Lake Hula in the North to the tip of the Red Sea in the South. Unfortunately this map is much too imprecise to get more than a very general idea of the location of the sites discussed. A few detailed maps showing the sites listed in the gazetteer would have been a very welcome addition to this work. The same would apply for a digital (web-)publication of such a map with the information provided here in a searchable database linked to it. Its use in a GIS application would greatly enhance the worth of such a gazetteer for other researchers asking different questions to the same database. However, given that all information of this gazetteer is now readily available such a digital version can easily be constructed by anyone who wants to use these data.

Katholieke Universiteit Leuven,
September 2010

Eva KAPTIJN

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CORDOVA, C.E. — Millennial landscape change in Jordan. Geoarchaeological and cultural ecology. The University of Arizona Press, Tucson, 2007. (23.5 cm, XIX, 255). ISBN 0-8165-2554-4. \$ 55.00.

This book provides a very good and accessible synthesis of the evolution of the diverse landscapes and environment of the Hashemite Kingdom of Jordan. In seven chapters Cordova is able to provide the reader with an overview of not

only the geological, geomorphological, and vegetational landscape of Jordan but also of scientific approaches, the present-day state of the research and specific topics that are today widely studied and debated. Cordova operates on the common ground between archaeology/anthropology on the one side and geography/geosciences on the other. The approach Cordova follows in this book and in his work in general is inspired by the work of his tutor Karl Butzer. Butzer's 'Archaeology as Human Ecology' (1982) has had a profound impact on geoarchaeology. Cultural ecology has since been widely regarded as the basis of understanding the ways in which societies or groups interact with their environment, especially with respect to adaptation, migration and diffusion and this book forms no exception.

In the preface preceding the first chapter, Cordova not only explains the topic of this book and his inspiration in writing it, but these are accompanied by an explanation on how dates, period names and geographical terms are used in the book. This even includes a table explaining how to pronounce the transcribed Arabic words (table P.1).

The first chapter entitled 'Approaches to the Study of Ancient Jordanian Landscapes in the Near Eastern Context' discusses the diverse approaches that have guided research into the diverse aspects of the Jordanian landscape. In a few pages (p. 3 to 14) he discusses the development of research into the topic together with the concept of landscape and the different understandings of it in archaeology and geography.

In the second introductory chapter 'The Physical Scene' Cordova provides the reader with a necessary and worthwhile account of the geology, geomorphology, climate, flora, fauna and soils that are present within the Jordanian territory. Description includes the tectonic history of Jordan and its different deposit types like the lacustrine deposits of the rift valley, and the quaternary eolian sand deposits that cover large parts of the south and east of Jordan. In the section on climates and weather an overview is given of the prevailing winds, the mean temperatures and precipitation of the present-day climate and Jordan's position in Köppen's climatic classification. Likewise, an overview is given of Jordan's most common plants and animals according to their natural habitat. Chapter 2 might be rather descriptive, but it is a necessary exercise for the less informed reader and will undoubtedly prove a useful reference work in years to come.

In the third and fourth chapter Cordova describes types of Jordanian landscape in more detail and places emphasis on geoarchaeological themes related to these landscape types. In chapter three woodlands are discussed and emphasis is placed on the two main wooded areas of Jordan and the distinctions between them. These are the northern highlands between the Irbid plateau in the north and Salt in the south and the southern highlands stretching along the western edge of the plateau between Tafila and Wadi Musa. Cordova continues with a description of the most important types of trees. At the end of the chapter he raises the question whether there are natural woodlands in Jordan today and whether there ever were so in the past. By going into the topic of potential natural vegetation, i.e. the vegetation that would grow if no other vegetation existed, Cordova explains whether proper forests are likely to have ever been present in Jordan. Today, canopy cover of wooded areas in Jordan is generally less than 40% which is often regarded to be lower limit of woodland. Below 40% tree cover the term wooded grassland is used. Only when more than 80% of the land is covered with

trees an area is classified as a proper forest (p. 84). Today, no proper forests exist in Jordan. However, pollen records from neighbouring regions and the reconstructed climatic and physical geographical conditions suggest that the more humid Terminal Pleistocene and Early Holocene are likely to have favoured forests in the higher areas of Jordan. Cordova continues to discuss the process of woodland reduction that has been on-going as a result of increasingly dry conditions and human pressure. Desertification and human impact have different effects on the specific Jordanian type of vegetation. Together they form what is widely known as steppification.

In chapter four a different and equally common landscape of Jordan is described, i.e. drylands (chapter four entitled 'Encroaching Drylands. Steppe and Desert'). Cordova starts his discussion with negating the commonly held belief that these areas are all very similar. Contrarily steppe and desert areas are very diverse and harbour a wide selection of specific types of plants and animals. This diversity is the result of a wide range of interdependent factors like lithology, landforms, local climate, including anthropogenic factors. As a result of the early domestication of animals and plants in this area human influence has been long and intense resulting in a great reduction of number of species. Especially the grazing of sheep and goats has a degrading effect on dryland vegetation. In intensively grazed areas this has resulted in the development of an antipastoral vegetation, i.e. plants that are unpalatable to herds and are therefore left untouched resulting in a very specific type of vegetation (p.114). Cordova also provides a basic description of some of the most important vegetation zones like the Saharo-Arabian Desert, the Irano-Turanian Steppe, Sudanian vegetation and the vegetation of the oases (p.102-112).

Cordova highlights that early 20th century nomadic seasonal patterns might provide information on how pastoral nomads responded to their environment and to the sedentary farming communities in the west of the country. Even though the nomadic groups themselves have changed many times in the past few thousand years, the environment in which they lived has remained largely the same and early modern nomadic practices might provide some information on ancient practices. An example of the influence of the environment on pastoral nomadic practices is visible in the vertical nomadism of several groups in the Ras al-Naqb area and the Madaba plateau. Another major topic, but one which Cordova only succinctly touches, is the question whether full nomadism and full animal husbandry were ever present. In the last paragraph of chapter four Cordova describes the archaeological remains discovered in drylands areas. These clearly point out that these areas were not always limited to animal husbandry like today.

In chapter five 'Palaeoecological and Geoarchaeological Records: Current Status and Prospects' Cordova discusses the different types of research that provide information on the paleoenvironment of Jordan (p.122-155). Although this chapter will probably be judged too succinct and superficial by experts, for the student and non-expert this is a welcome starting point that provides the reader with up to date references to guide further reading. Strands of research that are being discussed include pollen records, botanical macroremains, phytolith research, tree ring research, faunal remains, soil and palaeosol research, etc.

Chapter six 'Patterns of Millennial Landscape Change' provides a description of the climatic and landscape changes

during the Late Pleistocene and Holocene in Jordan. Starting with the Last Glacial Maximum Cordova has subdivided each paragraph in a section on palaeoclimatic reconstruction followed by a section on the cultural development and in the later paragraphs also supplemented by a section on human impact. The most interesting parts of this and the previous chapter involve the part where Cordova uses his own research on the alluvial development of the Wadi al-Wala near the Early Bronze Age site of Khirbet Iskander. Especially the geoarchaeological developments during Late Chalcolithic period and Early Bronze Age are well described in this chapter. In this way Cordova is able to provide more detail to the discussion which makes these parts highly interesting.

In chapter seven 'Interpreting Millennial Landscape Change' Cordova provides the reader with a synthesis and conclusion of all the previous chapters. Cordova places considerable emphasis on the idea that thresholds can be crossed in landscape evolution like they can in other fields resulting in an often irreversible new situation to which all dependent things have to adapt. This is clearly an important concept which is suitable to landscape evolution as the book demonstrates. The book further contains an appendix of Latin, English, and Arabic names of plants (p.205-211), a glossary of important terms (p.213-218), a bibliography (p.219-248) and an index (p.249-254).

In all Cordova has created an interesting book which discusses several topics that are not always sufficiently well represented in archaeological research. This book will prove a valuable companion to archaeologists of Jordan, both students and more advanced scholars. In all, Cordova has succeeded in creating a book on the geoarchaeology and cultural ecology of Jordan that might well become a standard work for Jordan.

Katholieke Universiteit Leuven,
July 2010

Eva KAPTIJN

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FAUST, A. — Israel's Ethnogenesis. Settlement, interaction, expansion and resistance. Equinox Publishing Limited, London, 2006. (24 cm, XVI, 289). ISBN 978-1-904768-98-2.

The identification of early Israelite settlers in the archaeological record of the Iron Age I hill country has long been a matter of consensus. However, this consensus has today completely disappeared and the topic is now a hotly debated issue. Until recently scholars assumed that the IA I villages in the central highlands of Israel were Israelite in nature and hence their material culture was Israelite as well. Today, archaeologists are more careful in ascribing ethnicity to objects. In his book *Israel's Ethnogenesis. Settlement, interaction, expansion and resistance* Faust attempts 'to trace Israelite ethnic markers and ethnically specific behaviours, and to identify the historical contexts in which they became such' (foreword). Faust aims to study 'when the Israelites came into being as an ethnic group, and thus at which point, if at all, it is justified to refer to sites as 'Israelite'' (p. 3, introduction). Although many scholars have studied this topic, it has until now mostly been treated in articles focusing on a specific topic. The issue of the ethnic origin of Israel is, however, so complex that, according to Faust, it

asks for an integrated and exhaustive treatment of the topic. Faust has attempted to provide this comprehensive study of the subject and has succeeded brilliantly.

In his foreword Faust states that his discussion of the topic is 'expressively archaeologically based' (foreword). He acknowledges that for this specific topic texts are 'an important source, although often of a secondary nature' (foreword). In this book he has incorporated texts 'but only in a research framework that is archaeological in essence' (foreword).

The book is organized in five parts that are further subdivided by small chapters. The first part is referred to as 'Introduction' (p. 3-29) and contains three chapters that provide some background to the book, describe its aims and method (see above) and discuss the research that has already been carried out in archaeology on the topic of ethnicity and Israelite ethnicity in specific.

In the second part 'An Archaeological Examination of Israelite Ethnicity' (p. 33-107), several topics generally regarded to be indicative of an Israelite population are evaluated. The issues discussed include the taboo on the consumption of pig, the famous four-room house, and male circumcision. Additionally, the most common archaeological find category is discussed, i.e. pottery. Faust discusses the aspect of decoration on vessels, or more specifically the lack of any, which is the hallmark of the later Iron Age II pottery. Similarly the absence of imported pottery, also a characteristic of the Iron Age II period irrespective of the widely attested international trade, is followed back into the Iron Age I period. In the last chapter of this part, Faust goes beyond the description of objects or types of architectural forms. Instead, he discusses the start of the so-called egalitarian ethos that is suggested for the Iron Age II period, but that is described to have started already in the Iron Age I period.

The third part is a discussion of the relationship with the people that were spatially close but culturally distant, i.e. the Philistines ('Israel's Identity and the Philistines', p. 111-156). This part of the book is divided in four chapters that 'attempt to describe the nature of the interaction between the Israelites and the Philistines and the importance of the impact of the latter on the former' (p. 111). In the first chapter on settlement patterns he discusses the phenomenon that no rural or village sites seem to have existed at the transition from the Iron Age I to the Iron Age II period. At the end of the Iron Age I period most of the existing sites at that time, mostly village sites, were abandoned. Only a few sites continued into the Iron Age II period when they most often grew into large sites. Faust links this phenomenon to the presence of a threat, with as most likely candidate the neighbouring Philistines. In the short chapter that follows ethnicity is related to statehood. Chapter fourteen looks in more detail at the Philistines themselves and how they, as newcomers in the region, developed their society in this region. In the last chapter of this part, the relationship between the Philistines and the ethnic awareness of the Israelites is discussed. In this chapter Faust argues that the villages denoted as early Israelite were joined together in a totemic identity instead of a more strictly defined ethnic identity. Faust, further, describes that several of the ethnic markers of the Israelites can be explained by their encounters with the Philistines. However, according to Faust this is not the entire explanation. Some of the later distinctive traits of the Israelites had already surfaced before the Philistines came to the fore. The contact with the Philistines deepened these traits

and ideas of self, but they originated in a period before the Philistines.

Part four discusses the developments of these early traits. This part, referred to as 'Merenptah's Israel: the beginnings' (p. 159-187) contains three chapters. In the first chapter the Late Bronze Age is succinctly discussed and it is attempted to describe the group of people that were denoted by the term Israel when it appeared for the first time on the Merenptah stela and which is often considered to be an ethnic group instead of a kingdom or piece of land. This poses a contradiction to the posed totemic identity of the early villages. In the following short chapter Faust tries to explain this dichotomy away by arguing that Early Israel moved from an ethnic group in the late thirteenth century BC to a looser totemic group in the twelfth century BC. He argues that this was possible to come about through the diminished contacts with the lowlands, which had created the ethnic identity, resulting from the Egyptian presence. This process was aggravated by population growth and new settlers. In the last chapter, called 'origins reconsidered', the spatial origins of the people that later formed Israel is reconsidered. The frequently mentioned options like Egypt, Transjordan, Mesopotamia, the Canaanite cities in the valleys, etc. are discussed. Faust concludes, like several other scholars, that the Israelites probably had very diverse backgrounds, but considers a large proportion to have Canaanite origins.

In the last part Faust discusses what he terms 'Aspects of Distribution' (p. 191-226) and returns to a few topics already treated. In the first chapter of this concluding part he revisits pottery studies and discusses the collared-rim jar. This large pithos, that has long been the hallmark of the Iron Age I Israelites, has attracted a lot of discussion over the years. As may be deduced from the title of part five, Faust discusses the distribution of these jars, which is wider than the highlands, but does not stretch into Philistine territory or far into Transjordan suggesting a less abrupt boundary with the Canaanites than with the Philistines. Elaborating on the rigidity of the boundary with the Philistines, Faust discusses the distribution of Philistine pottery. Philistine bichrome pottery is present in Canaanite settlements in the coastal plain, the North and even the Jordan Valley, yet is almost absent from the hillcountry. Based on these distributions, Faust concludes that both groups had exchange relations with the Canaanites, while contacts between themselves were much more restricted. Faust, furthermore, somewhat redundantly concludes that these distributions show that material culture is loaded with ethnic meaning and that the spread of material objects is guided by social boundaries.

The book is closed by a chapter called 'Summary and Conclusions' (chapter 21, p. 227-234) and a short Postscript (Chapter 22, p. 235-236). In chapter 21 Faust provides a chronological resume of the previous chapters, this time starting from old and working his way up to the Iron Age II period. Subsequently he places himself in the tradition of William Dever's New Biblical Archaeology that is based on archaeology but does not ignore the literary sources. Faust argues that by starting from an archaeological basis a different type of data is gained that provides a fresh outlook on an old debate. He, furthermore, states that this region and period are probably the best studied by archaeology in the whole world and that this level of knowledge allows the application of anthropological theories in archaeology. This is, however, rarely undertaken, but this book is an attempt of such research carried out on the topic of ethnicity. Personally, I have been

rather sceptic on whether it is possible to study ethnicity from an archaeological perspective. Faust has, however, shown that an attempt is definitely worthwhile, although on the level of specific topics one may not agree with all his lines of reasoning. As archaeologists of this well studied region we should not lose sight of the huge amount of information that we do have and the many types of investigation this allows, instead of focussing on what we do not know.

The book, furthermore, contains a bibliography and both an index of authors and of subjects. The book itself is a volume in the 'Approaches to Anthropological Archaeology' series of Equinox Publishing (series editor Thomas E. Levy), which is a good fit considering its topic, Faust's regular use of anthropological models to treat his subject and the other volumes that have appeared in this series. One of the few and admittedly very minor faults of the book is the extremely sloppy photo editing of the cover image.

The publication has not passed unnoticed and within the few years since its first publication it has been awarded several scholarly prizes. In 2008, for example, the book received the *G. Ernest Wright Publication Award* of the American Schools of Oriental Research. In the same year it won the Third prize in the category of semi-popular books of the Levy-Sala Prize and in 2009 it received the Publication Award of the Biblical Archaeology Society for the best scholarly book on archaeology. Given the topic of the book, which is bound to rise a lot of attention, it was clear from the start that this book would not be shelved unread. However, Faust's extensive and coherent treatment of the subject from a truly, but not exclusively, archaeological stand has made this book a good treatment of a very difficult and hotly debated topic. In all, Faust has created a book that clearly deserves the prizes it has been awarded.

Katholieke Universiteit Leuven
December 2010

Eva KAPTIJN

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STRONACH, D., and M. ROAF, The major buildings of the Median settlement. (Nush-I Jan, 1). The British Institute of Persian Studies, London, 2007. (242, 64 pl.). ISBN 978-9042918504. € 80,-.

Nush-i Jan lies about 60 km. south of Hamadan, the Median capital (Ecbatana), in the middle area of the Malayan Plain in western Iran. Manifest is its distinctive character: an outstanding, isolated elliptical shale outcrop, steep in its slope, 37 meters in height, and visible for some distance. Its surface area is 100 by 40 meters, approximating the size of an "American football field" (p. 53; Pls. 1-3, 5). On its summit was constructed a unique group of structures.

Five field campaigns were carried out from 1967 to 1977, with Stronach (Director) and Roaf engaged in all the campaigns (I participated in 1967). Several excellent preliminary field reports were published, the first in *The Bulletin of the Metropolitan Museum of Art* (XXVII 1968; the Museum was a supporter of the excavations), others in *Iran* from 1969 to 1978, and a few general summaries elsewhere (viz, *RLA* 1998-2001: 624-629). Two occupation settlements were uncovered, the major Median settlement, and an overlying so-called Squatter, perhaps Parthian, settlement, apparently a

village. In 1984 the first of four proposed final monographs (called fascicules) concerning the non-pottery artifacts from the two settlements was published (Curtis 1984; more objects, unpublished here, are mentioned in the present fascicule). The present publication is the second to appear (it bears the date 2007 but appeared in 2008; I received it in February of 2010). Two other projected fascicules will publish the Median settlement's pottery (on which a preliminary report was published by R. Stronach in *Iran* XVI, 1978: 11-24), and the architecture and pottery of the Parthian settlement; a summary is given in Chapter 9. Surveys by Rosalind Howell revealed that some 84 sites in the Plain contained the same pottery as that recovered at Nush-i Jan; one is another shale outcrop 1.5 km. to its north.

Six Chapters (2 to 7) present a fine description of the details, problems, and results of the unveiling of the structures. Chapter 9 summarizes the materials employed in the constructions, the placement of doorways and windows and other architectural features. Many plans, documentary drawings and photos are provided. Nush-i Jan was an unusually difficult site to excavate with respect to determining the construction sequence of the structures, internal building additions, and the difficult task of recording these details, and resolving complex issues, viz. that the Temple's roof was most probably flat (p. 91). A practical difficulty was the time-consuming tasks involved in removing the fillings from the Temple's deep rooms and the dumping of all down the steep slopes.

The Introduction presents a good summary of the site's excavation history, its results and importance. In a hitherto unpublished contemporary personal account (p. 45) Stronach records the nature of the discovery of Nush-I Jan in 1965. He and T. Cuyler Young, Jr. (a lamented wonderful friend, and a superbly generous and honest archaeologist) were traveling north in a motorcar and in passing spotted "the distant outline" of the Tepe (how could anyone not have previously discovered this prominent site?). Walking to the site they discovered evidence on the summit of occupation as well as sherds related to those recovered at Ziwiye by Robert H. Dyson, Jr. (from several surveys, and a three-week excavation in 1964, but incompletely published), thus suggesting a 7th century date. No previous disturbance was observed, but when excavations began Stronach noted a single pit dug by an illegal "excavator" (p. 53; read: dug by an illegal plunderer).

The Median constructions constitute a connected series of structures, built of mud brick and mortar encircled by a 280 meters defensive perimeter wall. They were built successively over time on the rock surface, or above a brick surface or a platform. The first to be erected, and the most prominent, was the lozenge-shaped Central Temple, structure containing a mud-brick stepped altar topped by a fire bowl, its surface showing burning; it was "the centerpiece of the mound" (1 on the plan, Fig. 1.9; and Figs, 2.1, 2.4). The Temple had two storeys (see the dramatic photograph on the volume's cover), ten meters in height; its form is unique. The Old Western Building at the eastern area was subsequently built; it was possibly a second temple (2 on the plan). Then, immediately adjacent to the Temple (3 on the plan) the Fort was built, a structure with buttressed outer walls; it had either two-storeys or above the lower a large open roof area. It is identified as probably a storehouse as it has four long parallel magazine rooms. Following this was

constructed The Northern Area, northwest of the Temple, not fully excavated. The last structure erected was the Columned Hall, with twelve columns, three rows of four, a unique feature at this time in Iran. It contained no internal features except a one-brick high platform at its south wall, and a twenty-meter long sloping rock-cut tunnel (Chapter 11, Fig. 11. 1-5). At some period after the building of the Fort, a mud-brick fortification wall was constructed, in part containing deep interior arches. Various architectural adjustments and additions were recognized in all structures. On page 214, Fig. 11.9 there is a tabular presentation of the full chronological sequences of all the structures' building history. Only one apparent well or cistern was recovered, cut into the bedrock in the Court south of the Temple; excavation ceased before reaching its termination. The authors claim Nush-i Jan "was not part of a vast imperial enterprise," inasmuch as the Medes had not yet achieved "a prominent role in world affairs" (p. 54). But surely such a conclusion has no bearing on the site having been in fact a vast Median enterprise *per se*, albeit its ancient name remains unknown.

Nush-i Jan's termination was a planned abandonment, presumably by the local authority. All the structures, except for the Columned Hall, including the contiguous courtyards and the fortification wall were painstakingly filled in, as were arches and entranceways, a process described in Chapter 8. The Temple was filled with stones, topped with mud brick layers, the others filled solely with mud brick. The authors' calculations of the total filling volume give a total of 450,000 bricks, and 300 cubic meters of stone employed, the stone quarried, the bricks locally made. They correctly note that there was no desecration, no destruction involved here, and suggest that what occurred was "a reverential entombment" that may have resulted from a change in local religious practice; it could have been the introduction of a reformed Zoroastrianism (pp. 171, note 2; 212-213). Squatters subsequently settled in the unfilled Columned Hall where they built modest houses therein (p. 208, Figs. 11.6, 7).

I firmly agree that Nush-i Jan's burial was a reverential action. And it has an equally dramatic parallel at King Midas' Gordion, the capital city of Phrygia. After the major destruction there ca. 700 B.C., a clay deposit nine meters in depth was placed over the destroyed citadel and a new, major building was accomplished, its plan very much the same as that of the destroyed structures below. I proposed in 2008 that the clay deposit represented a ritual burial of the mourned destroyed site of King Midas, and I presented the burial at Nush-i Jan as a parallel ritual burial of a site (Muscarella 2008:182).

Concerning the chronology of the site, its construction and abandonment, the authors correctly cite the lack of adequate C 14 data, based on one wood sample (p. 215, note 6; and which I add, could have been a reused timber), and the lack of precise, rather than a general now ensconced term, Iron III period, 7th-6th centuries B.C. pottery comparanda (page 216). On page 5 the authors had suggested that the date "may have occupied the greater part of the interval between 750 and 600 B.C." To this reviewer the beginning date given here may be too early; in 1985 (Muscarella 1985: 729; not cited) I stated that the initial date should be "general late 8th century." This chronology is discussed as somewhat more nuanced, as the Parthian occupation is suggested to have lasted from "the outside limits of, say, 650-525 B.C." (p. 58). In other words, a precise chronology still eludes us.

It is noteworthy to call attention to other qualities of the excavators' accomplishments. Conservation and preservation were constantly part of their excavation strategy, leading to annual roofing of prior excavated structures, to conscious non-completed excavation of some walls and structures (The Fort), and the reburial of the Temple's crumbling altar. And then they faced the difficulty of maintaining clarity in their writing and explication of the complexities they consistently encountered, which problem they have splendidly overcome in this fascicule. The result is a masterpiece of archaeological excavation, dexterity and elucidation. I congratulate them both.

(Alas, one final comment is necessary. Both authors are rightly respected as good scholars and archaeologists, and thus all the more reason to call attention to the problem regarding the full publication of Nush-i Jan: their delay in publishing the results of the excavations. Aside from the fine preliminary field reports published up to 1978, it was not until 1984 that the first of four proposed final fascicules was published (Curtis 1984). The next, the present, fascicule appeared 24 years later, and no specific date is offered concerning when the other proposed fascicules will be published. Surely one reason for this delay is that years after completing work at Nush-i Jan, Stronach began to excavate for years at several other sites, at Nimrud, in Armenia and in Daghestan (for a total of a dozen campaigns): thereby postponing publishing the site he finished excavating thirty three years ago. Not only is this archaeological solecism disturbing on its own terms, it also provides ammunition to dealers and collectors of antiquities who endlessly sneer verbally and in print about archeological non-publications, blithely contrasting their prompt publication of their plundered antiquities. On archaeological non-publication see B. Fagin, "Archaeology's Dirty Secret" in K. Vitelli, ed., *Archaeological Ethics*, Altamura 1996: 247-252; and Muscarella in *BASOR* 242, 2006: 69-94.

New York City, March 2010

Oscar White Muscarella

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CRIBB, J., and G. HERRMANN (eds.) — After Alexander: Central Asia before Islam. Oxford University Press, Oxford, 2007. (25,5 cm, XVI, 514). ISBN 978-0-19-726384-6. £65.00.

Im Juni 2004 hat die British Academy in London die Tagung „After Alexander: Central Asia Before Islam. Themes in the History and Archaeology of Western Central

Asia“ veranstaltet, bei der Historiker, Numismatiker und Archäologen über ihre neuesten Forschungen in den ehemaligen zentralasiatischen Sowjetrepubliken sowie Afghanistan und Iran berichteten. Von den Referaten dieser Tagung wurden 24 in einem von Joe Cribb und Georgina Herrmann herausgegebenen Sammelband veröffentlicht, der bereits 2007 erschienen ist.

Einführend (1-7) geben die Herausgeber einen Einblick in die Forschungsgeschichte und erläutern die Ziele und Themenschwerpunkte der Konferenz sowie des daraus hervorgegangenen Sammelbandes. Sie nennen die wichtigsten Institutionen und Wissenschaftler, welche die sowjetische Tradition der Zentralasienforschung begründet haben und beschreiben, wie diese Tradition durch den Zusammenbruch der Sowjetunion einen schweren Schlag erfahren hat. Die gegenwärtige Forschungssituation in Zentralasien ist durch die finanzielle Beschneidung der jeweiligen Nationalen Akademien und im Falle von Turkmenistan sogar durch deren Schließung gekennzeichnet. In den letzten beiden Jahrzehnten konnten dennoch zahlreiche Ausgrabungen und andere Forschungen fortgeführt werden, was vor allem dem Engagement der zentralasiatischen Wissenschaftler zu verdanken ist sowie dem Einsatz der russischen Kollegen, deren Interesse weiterhin auf die Region gerichtet. Zudem werden in den letzten Jahren vermehrt europäische, amerikanische, japanische und australische Kollegen eingeladen, an archäologischen Expeditionen teilzunehmen. Diese zunehmende Internationalität der Zentralasienforschung wird durch die im vorliegenden Band gesammelten Aufsätze eindrucksvoll dokumentiert.

Der erste Beitrag „Central Asia: West and East“ (9-25) von John Boardman schließt mit einem kurzen Abriss zu den britischen Forschungen in Afghanistan und dem südlichen Zentralasien thematisch an das Vorwort an und wurde offenbar deshalb an den Beginn der Aufsatzsammlung gestellt. Im Weiteren ist der Artikel jedoch eine kunstgeschichtliche Studie zu griechischen und chinesischen Einflüssen auf die Ikonographie und den Stil der zentralasiatischen Kunst und damit zum kulturellen Austausch entlang der Seidenstraßen.

Die übrigen Aufsätze sind nicht chronologisch, sondern den Themen „Nomad“, „City“, „Invasion“, „Money“ und „Religion“ zugeordnet. Den Auftakt des Abschnittes über die Nomaden macht der längste Artikel des Sammelbandes „Nomads and the shaping of Central Asia: from the early Iron Age to the Kushan period“ (29-72) von Claude Rapin. Darin werden nicht nur die Ergebnisse verschiedener jüngerer Ausgrabungen in Usbekistan und Afghanistan präsentiert, sondern auch in einen historischen Zusammenhang gestellt, so dass der Beitrag einen hervorragenden Einblick in die wechselhafte Geschichte Sogdiens und Baktriens zwischen dem Beginn des 1. Jts. v. Chr. und dem 2. Jh. n. Chr. gibt. Kazim Abdullaev konzentriert sich in dem Artikel „Nomad Migration in Central Asia“ (73-98) auf Usbekistan, wobei er verschiedene Nekropolen, eine schon länger bekannte Anlage, die er als nomadische Stadt deutet, und Funde von Terrakotten und anderen figürlichen Darstellungen vorstellt, die er mit den nomadischen Yuezhi und Saken in Verbindung bringt. „Regions and territories in Southern Central Asia: what the Surkhan Darya province tells us about Bactria“ (99-117) von Sebastian Stride ist eine Studie der Landnutzung und Siedlungsentwicklung in einer südöstlichen Provinz Usbekistans von der späten Eisenzeit bis ins frühe Mittelalter. Grundlage sind Karten, in denen die lediglich durch Wanderbeweidung bzw. Weidewirtschaft und die durch einfache Bewässerungstechnik agrarisch zu

nutzenden Flächen sowie die Siedlungen unterschiedlicher Zeitstufen kartiert sind. Eines der vielen interessanten Ergebnisse ist, dass die antike Landschaft um das heutige Denau herum so viel Potenzial besaß, dass sie innerhalb der Region eine selbständige und zuweilen auch auf Unabhängigkeit bedachte Einheit bilden konnte. Demgegenüber besaß das Gebiet um das heutige Termez viel weniger landwirtschaftlich nutzbare Fläche, so dass die dortige antike Stadt Alt-Termez eigentlich nur als militärischer Vorposten gegründet worden sein kann.

Der Abschnitt „City“ beginnt mit „Bactria, land of a thousand cities“ (121-153) von Pierre Leriche. Der Titel des Beitrags geht auf Justin zurück, der von Tausend Städten zur Zeit des Diodotos (um 250 v. Chr.) spricht. Diese Überlieferung zusammen mit anderen griechisch-römischen Quellen bilden die Basis für die bis heute weit verbreitete Annahme, dass die Kultivierung und Urbanisierung Baktriens erst nach der Eroberung durch Alexander den Großen einen Schub erhalten habe. Demgegenüber kann Leriche zeigen, dass die fruchtbaren Ebenen Baktriens bereits in der Achämenidenzeit durch intensiven Bewässerungsfeldbau erschlossen waren und von einer sesshaften Bevölkerung bewirtschaftet wurden. Die hellenistische Urbanisierung bestand vor allem in der Ansiedlung in bereits bestehenden Ortschaften und in der Errichtung kleinerer Festungen, mit denen die Grenzen sowie Flussübergänge und Pässe kontrolliert wurden. Von einem Baktrien der Tausend Städte kann man jedoch erst in der Kuschan-Zeit sprechen, in der bestehende Siedlungen in größerem Maßstab ausgebaut sowie zahlreiche Städte neu gegründet wurden. Auf die einzige größere, in hellenistischer Zeit gegründete Stadt geht Guy Lecuyot in „Ai Khanum reconstructed“ (155-162) ein, wobei er hauptsächlich erläutert, wie und auf welcher Basis die als 3D Animationen produzierten Rekonstruktionen entstanden sind, von denen einzelne Bilder farbig im Sammelband abgebildet werden. Sie zeigen nicht nur die gesamte Stadanlage, sondern mit dem Nischentempel, dem Palast und dem Gymnasium auch die wichtigsten Gebäude der am Beginn des 3. Jhs. v. Chr. gegründeten Stadt, deren 1978 abgebrochene Ausgrabungen leider niemals vollständig publiziert wurden. Ein weiterer wichtiger Fundort hellenistischer Zeit wird von Antonio Invernizzi in „The culture of Parthian Nisa between steppe and empire“ (165-177) vorgestellt. Darin geht er auf den im parthischen Kernland im heutigen Turkmenistan gelegenen monumentalen Baukomplex Alt-Nisa ein, den er als Heiligtum für den Herrscherkult der Arsakiden deutet. Darüber hinaus stellt er einige der in den Ruinen entdeckten Kleinfunde und Skulpturen vor, deren Ikonographie und Stil auf in Nisa tätige Werkstätten deuten, die Traditionen der Steppenkunst oder griechische Traditionen aufnahmen, aber auch griechische Bildthemen in genuin zentralasiatischer Weise umzusetzen wussten. Wieder nach Baktrien führt der Beitrag „Termez in antiquity“ (179-211) von Pierre Leriche und Shakir Pidaev. Zunächst wird die Geschichte der MAFOuz, der französisch-usbekischen Mission, skizziert, und die Schwerpunkte der von beiden Autoren geleiteten, im Surchandarja-Gebiet forschenden Gruppe erläutert. Einer dieser Schwerpunkte ist Alt-Termez, das unweit des heutigen Termez und der Mündung des Surchandarja in den Amudarja liegt. Die hellenistische Phase ist vor allem durch Keramik aus einem 2004 angelegten Tiefschnitt belegt. Die Autoren nehmen an, dass die Siedlung als Festung am Ende des 4./Beginn des 3. Jhs. v. Chr. gegründet wurde, sich aber erst

unter den Kuschan zu einer Stadt entwickelt hat. Sie beschreiben ausführlich die zahlreichen freigelegten Bauten, darunter verschiedene mit dem Buddhismus in Verbindung zu bringende Gebäude und die Festung Tschingiz Tepe. In eine andere Region, nämlich das nordwestlich an Baktrien anschließende Sogdien, führt der Artikel „The arrangement of buildings in the quarters of a Sogdian city“ (213-223) von Grigory Semyenov. Am Beispiel der frühmittelalterlichen Stadtanlage von Paikend, das in der Oase von Buchara liegt, beschreibt der Autor die großen Unterschiede zu den antiken Stadtanlagen der Region. Während die antiken Städte regelmäßig organisiert sind, zeichnen sich die mittelalterlichen Städte durch ihr unregelmäßiges Straßenraster und damit auch durch die verschiedene Größe der Stadtviertel aus. Die Nachvollziehbarkeit der These leidet allerdings darunter, dass die im Text angesprochenen Stadtmauertürme, Tore und Straßen von Paikend in den abgedruckten Plänen kaum zu identifizieren sind.

Der Abschnitt „Invasion“ wird durch den Beitrag „Ardashir’s eastern campaign and the numismatic evidence“ (227-242) von Michael Alram eingeleitet, dessen Titel den Inhalt sehr gut umreißt. Anhand der relativchronologischen Einordnung einiger unter Ardaschir I., dem Gründer des Sasanidenreiches, in Merw und wahrscheinlich dem südlichen Afghanistan (Sakastan) geprägten Münzen kann Alram wahrscheinlich machen, dass die Feldzüge in den Osten erst nach ca. 230 erfolgten, nachdem Ardaschir die parthische Hauptstadt Ktesiphon in Mesopotamien erobert und damit dem parthischen Großreich einen vernichtenden Schlag versetzt hatte. Ein neu entdecktes Felsrelief, das den Nachfolger Ardaschirs, Schapur I., bei der Nashornjagd zeigt, wird unter dem Titel „The Sasanian relief at Rag-i Bibi (Northern Afghanistan)“ (243-267) erstmals publiziert, wobei der Beitrag von verschiedenen Wissenschaftlern verfasst wurde. Jonathan Lee beschreibt, wie er 2002 Kenntnis von der Existenz des Reliefs bekommen hat und wie es zur kurzen, im Mai 2004 durchgeführten Expedition kam. Francois Ory gibt eine technische Beschreibung des 4,9 x 6,5 m messenden Reliefs, das sich durch die Tiefe des Reliefs (bis zu 2,5 m) und die Anzahl und Größe der dadurch notwendig gewordenen Anstückungen — die allerdings heute verloren sind — auszeichnet. Frantz Grenet ordnet das Relief kunsthistorisch ein und stellt erste Überlegungen zur Interpretation der Reliefszene vor und dazu, warum das Relief im Nordosten des Sasanidenreiches und nicht eben an fernhin sichtbarer Stelle angebracht wurde. Schließlich erläutert Philippe Martinez, wie er beim 3D-Laser-Scan des Reliefs vorgegangen ist. Leider ist ausgerechnet der 3D-Scan, der eine Zeichnung des Reliefs ersetzen soll, relativ klein abgebildet, und Details des Reliefs wurden in anderen Abbildungen auf verwirrende Weise neben Abbildungen von Vergleichsobjekten gesetzt, so dass sich nur schwer ein gutes Bild von dem Relief gewinnen lässt.

An den nordwestlichen Rand der Oase von Merw im heutigen Turkmenistan führen zwei miteinander verknüpfte Beiträge. Der erste, „The fortifications at Gobekly-depe“ (269-283) von Gennady A. Koshelenko, beschreibt die dort vorgefundene kleine Festung parthischer Zeit, die wahrscheinlich im 1. Jh. v. Chr. errichtet wurde und in deren Zentrum ein rechteckiges Gebäude gefunden wurde, das offenbar als eine Art Handelshof diente. Die Anlage wurde am Beginn der sasanidischen Zeit verlassen und verfiel, wurde dann jedoch wieder errichtet, wobei man insbesondere den Grundriss des zentralen Gebäudes veränderte. Vasil Gaibov stellt

mit „The bullae of Gobekly-depe“ (285-294) diejenigen Funde vor, auf denen die erwähnte Deutung der Anlage als Handelshof basiert. Bei diesen Bullae handelt es sich um Klumpen aus ungebranntem Ton, die ehemals verschiedene Behälter versiegelten, in denen Waren in den Handelshof gesendet wurden. In die Tonbullen haben die Absender ihre Siegel eingedrückt, so dass die Tonbullen einen Einblick in die parthische Glyptik dieser Region geben. „Gorgan and Dehistan: the north-east frontier of the Iranian Empire“ (295-312) von Olivier Lecomte beschäftigt sich mit den archäologischen Stätten in Hyrkanien am südlichen kaspischen Meer. Diese parthische Provinz besteht aus einem durch Steppe geprägten nördlichen Teil, Dehistan, und einem südlichen Teil, der durch verschiedene im Elburs-Gebirge entspringende Flüsse landwirtschaftlich nutzbar ist. Die interessanteste der archäologischen Stätten ist zweifellos der sogenannte Alexanderwall, eine in parthischer Zeit errichtete Reihe von kleineren Befestigungsanlagen, die sich vom Kaspischen Meer in östlicher Richtung zieht und offenbar der Kontrolle der aus dem Norden nach Gorgan eindringenden nomadischen Bevölkerung dienen sollte. Zurück in die Oase Merw führt „The fortifications of the city of Gyaur Kala, Merv“ (313-329) von Vladimir A. Zavyalov. Darin fasst er kurz die Ergebnisse älterer archäologischer Untersuchungen zusammen, die sowohl Erk Kala betrafen, die achämenidische Stadt, als auch Gyaur Kala bzw. Antiochia Margiana, die unter den Seleukiden am Ort der achämenidischen Stadt neu gegründet wurde. Der Autor konzentriert sich im Folgenden jedoch auf die Befestigungsmauern der Stadt und die Datierung der einzelnen Bauphasen. Basierend auf den Ergebnissen einer zwischen 1997 und 2003 erfolgten Nachuntersuchung eines älteren Grabungsschnittes gelingt es ihm, insgesamt 7 Bauphasen zu scheiden, deren erste er um 280 v. Chr. ansetzt, während die letzte in das 6. Jh. n. Chr. fällt.

Der vierte, dem Thema „Money“ gewidmete Teil beginnt mit „Money as a marker of cultural continuity and change in Central Asia“ (333-375) von Joe Cribb, der einen langen und umfassenden, jedoch gut gegliederten und verständlichen Überblick über die Münzprägung und den Münzumsatz im südlichen Zentralasien gibt — und zwar für die Zeit zwischen den Achämeniden, als erstmals Münzen in die Region gelangten, bis in die Zeit der arabischen Eroberung am Beginn des 8. Jhs. Nicht zuletzt durch die 20 ganzseitigen Abbildungen, auf denen Münzen der verschiedenen Zeitabschnitte und Regionen übersichtlich angeordnet sind, bildet der Beitrag eine hervorragende Einführung in die (Münz-)Geschichte der Region über mehr als ein Jahrtausend. Dagegen behandelt der Beitrag „Some questions regarding the numismatics of pre-Islamic Merv“ (377-388) von Natasha Smirnova die Fundmünzen eines einzelnen Fundorts, der Oase Merw im heutigen Turkmenistan, die dort im Zuge der seit den 1950er Jahren durchgeführten Grabungen und Surveys gefunden wurden. Leider werden die im Titel angekündigten Fragen weder gestellt noch beantwortet. Stattdessen wird ein Überblick über die etwa 1550 Münzen gegeben, von denen sich etwa 1000 Exemplare bestimmen lassen. Sie gehören hauptsächlich der sasanidischen Epoche an, in der Merw eine Prägestätte bildete. Weniger als 42 Exemplare sind der seleukidischen, graeco-baktrischen und parthischen Zeit zuzuordnen. „Monetary circulation in ancient Tokharistan“ (389-397) von Edvard Rtveldze zeigt dagegen, wie sehr die Numismatik zum Verständnis der Geschichte von Regionen und Epochen beitragen kann, für die historiographische Zeugnisse weitgehend fehlen.

Der Beitrag fasst die Ergebnisse einiger früheren Arbeiten des Autors zu den Münzen im antiken Baktrien zusammen, ein Gebiet, das nach der Invasion verschiedener Völker in der Mitte des 2. Jhs. v. Chr. als Tocharistan bezeichnet werden kann. Der zeitliche Rahmen reicht über mehr als fünf Jahrhunderte von der genannten Invasion bis an das Ende der kuschano-sasanidischen Phase im 4. Jh. Auf Grundlage der Verbreitung der Münzen verschiedener Prägstätten bzw. Prägeherrn gewinnt Rtveldze Hinweise auf die politischen Einflussphären. Beispielsweise kann er anhand der starken Verbreitung parthischer Prägungen sagen, dass die Ebene des Amudarja bis in die Region von Termez von der Mitte des 1. Jhs. v. Chr. bis in die Mitte des 1. Jhs. n. Chr. unter parthischer Hegemonie stand und erst dann unter die Herrschaft der Kuschan gelangte. Helen Wang fasst in „Money in Eastern Central Asia before A.D. 800“ (399-409) die Resultate ihrer 2004 erschienenen Monographie zusammen. Sie untersucht zum einen die Münzen, die in Ostturkestan (den heutigen chinesischen Provinzen Xinjiang und Gansu) gefunden wurden, wobei sie neben den vorherrschenden chinesischen Münzen auch westliche (römische, parthische, kuschische, sasanidische und byzantinische) und lokal geprägte Münzen feststellen kann. Daneben hat sie aber auch die in Turfan, Dunhuang und anderen Orten der Region sehr zahlreich gefundenen Texte gesichtet, bei denen es sich häufig um Quittungen und vergleichbare Dokumente handelt, in denen Warenwerte oder andere Geldbeträge genannt werden. Dabei wird auch deutlich, dass im östlichen Zentralasien nicht nur Münzen, sondern auch Textilien und andere Waren als Währung genutzt wurden.

Der „Religion“ betitelte, letzte Abschnitt des Sammelbandes wird von „Religious iconography on ancient Iranian coins“ (413-434) von Vesta Sarkhosh Curtis eingeleitet. Darin betrachtet die Autorin die Motive und Details verschiedener achämenidischer, parthischer und sasanidischer Münzen, unter denen sie einige überzeugend in einem iranischen bzw. zoroastrischen Kontext deutet. Problematisch scheint jedoch, dass sie von vornherein die seleukidischen Münzen aus ihrer Betrachtung ausschließt — obwohl zumindest die in den iranischen Münzstätten geprägten Münzen in die iranische Tradition gehören und obwohl die Seleukiden durch die Heirat des Seleukos mit Apame eigentlich als Halbiraner gelten können. Ebenfalls mit der zoroastrischen Religion verbunden ist ein Gebäudekomplex, der unter dem Titel „The fire temple at Tash-k'irman Tepe, Chorasmia“ (435-453) von Alison V. G. Betts und Vadim N. Yagodin vorgestellt wird. Choresmien ist eine Region im Nordwesten des heutigen Usbekistan, die in der Antike zwar Kontakte mit den angrenzenden Regionen hatte, jedoch eine eigene und weitgehend unabhängige kulturelle Entwicklung aufweist. Bei dem seit 1996 durch eine australisch-karakalpakische Expedition untersuchten Feuertempel handelt es sich um einen Bau mit einem komplizierten Grundriss, dessen Funktion in die „antike Periode“ Choresmiens, also in die Zeit zwischen dem 4. Jh. v. Chr. und dem 4. Jh. n. Chr. datiert wird. Aufgrund der im Inneren des Heiligtums befindlichen Feueraltäre wird es mit dem Zoroastrismus in Verbindung gebracht, allerdings einer lokalen Variante dieser Religion. In eine viel spätere Phase dieser Religion gehört der Turm des Schweigens, den Mehdi Rahbar in „A tower of silence of the Sasanian period at Bandiyan: some observations about Dakhmas in Zoroastrian religion“ (455-473) vorstellt. Bandian liegt im nördlichen Iran, nur wenige Kilometer von der Grenze zu Turkmenistan entfernt, und gehörte in sasanidischer Zeit zum

Einflussbereich von Merw. Nur 100 Meter von dem durch seine Stuckdekoration bekannten sasanidischen Feuertempel in Bandian hat Rahbar seit 2000 eine Anlage runden Grundrisses freigelegt, die er als Turm des Schweigens deutet, auf dem der zoroastrischen Lehre folgend die Toten ausgesetzt wurden, um ihre Gebeine von Vögeln abnagen zu lassen. Die Anlage wird in Anlehnung an den benachbarten Feuertempel ins 5./6. Jh. datiert.

Am Ende geht es in „Buddhism and features of the Buddhist art of Bactria-Tokharistan“ (475-485) von Tigran Mkrtchev um Zeugnisse der buddhistischen Religion im südlichen Zentralasien. Darunter nennt der Autor vor allem Klöster, Stupas und Tempelanlagen, von denen etwa 20 im nördlichen Baktrien entdeckt wurden und deren früheste Bauten an das Ende des 1. Jh. datiert werden können — sicherlich ist es kein Zufall, dass die buddhistische Mission in Baktrien zur selben Zeit einsetzt, als sich das Reich der Kuschan gefestigt hat und die Regionen westlich und östlich des Hindukusch vereinte. Mkrtchev behandelt auch die buddhistische Kunst dieser Region: die Skulpturen, von denen die meisten in lokaler Tradition aus ungebranntem Ton gefertigt und farbig gefasst sind, die in manchen buddhistischen Anlagen erhaltenen Fresken sowie die Terrakotten. Dabei fällt schmerzlich ins Gewicht, dass in diesem Beitrag Abbildungen fehlen.

Obwohl im Vorwort betont wird, dass der Sammelband nicht als Handbuch gedacht ist, bieten mehrere Artikel hervorragende Einführungen in bestimmte Epochen oder Materialgruppen. Der Tagungsband besticht auch durch das interessante Nebeneinander von Überblicksdarstellungen und Detailstudien sowie dadurch, dass einige Artikel ältere Forschungen zusammen fassen und in anderen Artikeln neue und neueste Forschungsergebnisse präsentiert werden. Durch einen sehr umfangreichen Index (487-514) lässt sich der Inhalt der Beiträge sehr gut erschließen. Der Tagungsband ist reich bebildert, wobei die meist guten Abbildungen vor allem schwarz-weiß gedruckt sind. Bei dem Umfang des Bandes fallen die vereinzelt Schwachpunkte in der Redaktion der Abbildungen und in der Gliederung einzelner Beiträge kaum ins Gewicht.

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