Archaeology

David W. Anthony (ed.). *The Lost World of Old Europe: The Danube Valley, 5000-3500 BC.* The Institute for the Study of the Ancient World at New York University. Princeton/Oxford: Princeton University Press, 2010. 251 pages, 4 maps, 6 tables, many illustrations, most in color.

In a letter Roger S. Bagnall, Director of the Institute for the Study of the Ancient World, writes that when he was a student he "was taught about the Greek Neolithic, but with no sense of its connections to a larger cultural canvas to the north." (6). This is probably true of most people — our educations begin with the Greeks, but little if anything is taught about their contemporaries. We should not disparage the Greeks, but there were other cultures, and some of these with settlements larger than those of Mesopotamia, produced highly sophisticated artifacts. The exhibit The Lost World of Old Europe: The Danube Valley, 5000-3500 BC with its accompanying catalogue illustrates some of these artifacts and describes some of Greece's contemporaries.

The objects are displayed in two small rooms, which most viewers can easily see in about a half hour though those who share my interest in the period and region could easily take over two hours. Many of the objects I had seen before in Romania and Moldova and only wished that the collection was larger. At the Piatra Neamst museum in Romania there are hundreds of figurines on display. The museum at Chişinău, Moldova must have hundreds of Cucuteni pots alone not counting those from other cultural groups. The gold objects are spectacular for their variety and age, the flint blades are very impressive, and the ceramics just plain beautiful.

The catalogue that accompanies the over 250 objects is large and beautifully produced. The photographs are first rate and wonderfully illustrate the collection of ceramics, metal artifacts, flints, and ornaments that belong to numerous Copper Age cultures including Cucuteni, Tiszapolgár,

Bodrogkeresztúr, Vădastra, Gumelniţa, and Varna found in Romania, Moldova, and Bulgaria. Most of the objects are illustrated as figures in the catalogue or in the Exhibition Checklist, which includes description, size, context, date, and museum number, in the back of the catalogue. The exhibit is presented by the recently established Institute for the Study of the Ancient World in New York — this exhibit is only its second

Contributions to the text have been made by scholars from Romania, Moldova, Bulgaria, France, and England and the work is edited by David Anthony with Jennifer Chi, who coordinated the exhibit. Thanks to a large and favorable review of the exhibit by New York Times Science editor, John Noble Wilford, the exhibit has been well-attended, and the catalogue has gone into a second printing, something unusual but quite welcome in a field as little known as this.

The title seems to combine the designations of these areas given first by V. Gordon Childe and later by Marija Gimbutas. "Old Europe" is the name Gimbutas gave the Balkan cultures that saw the earliest domestication of plants and animals in Europe, and it was V. Gordon Childe (1929) who earlier described the cultures that were part of the Danube Valley. Anthony follows Gimbutas in the use of the term "Old Europe," recognizing the usefulness of it and sparing the need to run many cultural groups together.

Anthony surveys the subject in a broad if perhaps choppy Introduction, but in his defense, it is difficult to summarize this material in a few pages. He prefers the term "Copper Age" as it is comparable to Bronze Age and Iron Age, but it is also deceptive as it implies that copper was dominate when stone tools were still in the vast majority. "Eneolithic" or "Chalcolithic" are more accurate in that they take in both copper and stone as the major materials used in tools and weapons. Furthermore, a number of dramatic flint blades are part of the collection. But this is a quibble.

The twelve to fifteen hundred year period from the beginning of the Neolithic in Greece to ca. 5000 BC saw the spread of the Neolithic economy throughout the Balkans and the advance of ceramic technology. Figurines, primarily female, were also ubiquitous in the area. Some of these are black figures, the products of a reducing atmosphere high in carbon monoxide that new kiln technology permitted. These

advances in kiln technology also allowed for temperatures reaching 800-1100° C, and these high heat kilns, with their reducing atmospheres, led to the smelting of copper ores such as azurite and malachite. At 1083° C copper liquefies and this feat was achieved before 5000 BC. Turning blue and green stones into liquid copper and then making it solid again surely must have appeared to be magic. This also put the copper objects into a category of high prestige to be used in important gift exchanges between elites (35).

Anthony emphasizes long-distance trade as a key to understanding much of the material in the collection, particularly that coming from the Varna cemetery, and he considers them "symbols of status and recognition" (38). Spondylus shells are of particular interest as they only grow in warm water such as the Aegean and Adriatic Seas but not the Black Sea. Nevertheless they are found in the Balkans and found in hoards such as the Karbuna¹ hoard discovered some distances from the warm seas.

Figurines are a major component of Old European artifacts, and there are a variety of interpretations. Perhaps the best known and most controversial is that put forth by Marija Gimbutas. Her views have been highly criticized (some unnecessarily vitriolic) but this is an area where certainty is difficult if not impossible. Gimbutas' view of these figurines stressed birth and regeneration, and she laid out her views in detail (see Gimbutas 1982 and 1989). A common criticism of her work is as Anthony puts it:

that modern or even medieval folk traditions are separated from Old Europe by at least five thousand years of intervening history... [and that her]...attempt to link specific Copper Age goddesses with Minoan or Greek deities must overcome the problem that Classical Greece and Bronze Age Crete were quite far from Romania or Moldova geographically, and even Minoan Crete flourished at least two thousand years after Old Europe. (42)

While he is correct in the time factor, 5,000 years has not been a detriment to Judaic beliefs and although Christianity has only been around for 2,000 years, yet it has spread over

¹The Karbuna hoard, found in Moldova, had 444 copper objects, 270 ornaments and unfinished ornaments in a Tripol'ye A pot. The Brad hoard consisted of copper, gold, and marble placed in a pit and found in Romania.

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much of the world from its beginnings in the Near East. As for the geographic distance of Minoan Crete from Romania and Moldova, Crete was, in Gimbutas' definition, considered a part of Old Europe (see Map 1 in Gimbutas 1982) and thus built on the same traditions as Cucuteni and Neolithic Greece. Moreover, one cannot deny that certain specific similarities — such as the appearance of owls and snakes — unites these figurines with the Minoan artifacts and with classical Greek iconography in a way that is both complex and unmatched in other regions of the world. Furthermore, religious beliefs could have travelled over long distances much as material items did (see Kristiansen and Larsson 2005).

The contexts and condition of the figurines is, indeed, a problem as is the question of shrines. But in this latter case, I would suggest that shrines need not be separate from domestic contexts. Russian Orthodox households often reserve a corner of a room as a religious shrine as do some Buddhist and some Catholic households even today.

Between 4300 and 4100 BC Old Europe went on the decline perhaps because of climate change, perhaps invasions of nomadic people from the steppes, perhaps internal collapse, perhaps a combination of any or all of them — there is some evidence for all. No matter the cause, there was abandonment of settlements in most areas except in the areas occupied by the Cucuteni/Tripol'ye culture. Here, in fact, some settlements increased in size up to 450 hectares (Tal'yanki), but by the mid 4th millennium they too were abandoned.

Cucuteni is the major cultural group involved in the collection, but it is inextricably linked to the Tripol'ye of Ukraine and a simplified chronology would have been helpful. Videiko (1994) gives a short chronology which I reproduce below although it differs slightly with other chronologies offered in the catalogue.

Tripol'ye CII	3500-3200 BC
Tripol'ye BII & CI/Cucuteni B (1-3)	4000-3500 BC
Tripol'ye BI & II/Cucuteni A-B(1-2)	4200-4000 BC (Classical)
Tripol'ye BI/Cucuteni A(1-4)	4500-4200 BC
Tripol'ye A/Pre-Cucuteni I, II, III	4800-4500 BC
• •	(after Videiko 1994:7)

A chart of the cultural groups would have been helpful although the information can be gleaned from Table 1-1 on p. 32.

A map of "The Expansion of Early Farming Communities across Europe is on the inside the front and back covers of the volume will be very helpful to those who are not familiar with this sequence of events.

Long-distance trade, figurines, and metallurgy emphasized by Anthony are all themes taken up by the nine essays that follow the Introduction in the catalogue. These essays will be most useful to those who already have some knowledge of the material and cultures to which they belong; the number of culture groups and site names may be offputting to the uninitiated. Having said that, the essays are informative and often present material not found in English. Clearly a knowledge of Romanian is essential to anyone wishing to gain in-depth knowledge on the subject of the cultures represented in the collection.

There are three material traits that are common to Old Europe: substantial houses, sophisticated pottery produced in a wide variety of shapes, and figurines, primarily female. Long-distance trade, was stimulated by the material traits, particularly the pottery and, as it developed, metallurgy, which took on more and more importance.

"A History of Archaeology and Museography in Romania" is given by Ioan Oriş and Cătălin Bem of the National History Museum of Romania in Bucharest. Despite the political hardships Romanians have had to face, Romanian archaeologists have continued to excavate and study the treasures of their country.

John Chapman, one of the few western European specialists in Balkan archaeology, contributes a chapter on "Houses, Households, Villages, and **Proto-Cities** Southeastern Europe." He notes the strong contrasts in the "lifeways" of Old Europeans: first between cemeteries and settlements and second between tell sites and flat sites. The two tables he provides starkly emphasize these comparisons. For example, the Varna culture sites range from 0.1 to 4 hectares for flat sites to 1 to 5 hectares for tell sites compared to Tripol'ye flat sites of 0.5 to 450 hectares. But the Varna culture produced a minimum of 100 graves and a maximum of 900 while the culture(s) of Cucuteni/Tripol'ye produced none. It is the Varna cemetery that has produced the most dramatic number and quality of metal objects.

Chapman points out that one of the Varna settlements, a

tell at Provadia, was near one of the richest salt sources in Bulgaria, but the houses were small and timber framed. Chapman rejects the view that because they were "described as economic social, and metallurgical center" (78), they were proto-cities. He finds none of the criteria, that is size or internal complexity, for proto-cities. The question remains at which sites were the items from the Varna cemetery produced.

The radiocarbon dates for Varna are surprisingly early, and Chapman is correct when he states that this makes the western Black Sea area "a leading innovator that stimulated the early expansion of trade and exchange networks linking the western Black Sea zone to communities on the northern shores and further north, into Moldova, as documented by the Karbuna hoard" (79).

The Tripol'ye culture produced some extremely large settlements. Vesely Kut is the earliest of these megasites with 150 hectares and dates to the Tripol'ye BI/II transition but most of these sites date later to ca. 3800-3500 BC to the Tripol'ye CI phase. Tal'yanki, the largest of all the sites, had 2,000 structures. Tripol'ye megasites have been characterized as elliptical sites containing perhaps thousands, certainly hundreds of houses arranged in concentric ovals with an empty area in the center. These were planned houses as the streets are laid out. Other scholars have suggested that some structures may have been shrines, but Chapman rejects this idea.

The largest of these 4th millennium settlements or "proto-cities" were larger than the earliest cities in Mesopotamia but seem to lack writing, internal settlement divisions, and interior storage systems.

The strain on resources and the need to supply these megasites would have required a reliance on subsidiary communities, but no evidence of a distribution system, temples, palaces, or even elite houses, or public mortuary rituals have been found.

Chapman concludes that Old Europeans did not display social inequality in their house architecture whether their settlements were tell or flat which he says "suggests that houses were not viewed as appropriate media for the display of social differences" (86). The conundrum he puts forth is the lack of settlement hierarchies from Varna sites where the cemeteries are so rich and the lack of any cemetery evidence

with the Tripol'ye megasites. Each case implies the other but the evidence isn't there.

Dragomir Popovici writes on the "Copper Age Traditions North of the Danube River." The material in the exhibition comes primarily from Romania and principally from three Cucuteni A sites that were excavated completely. He gives a description of where objects were found and "outline[s] the new aspects of everyday and spiritual life created by different archaeological cultures starting from a set of common, general features of the Neolithic Age" (91).

Tiszapolgár (4500-4000 BC) was first Copper Age culture in Romania. It appears as an extension from the Hungarian Plain, and most of the 130 settlement sites are level open sites, but there are a few tell and cave sites as well.

Gumelniţa (4600-3950), however, was the main Copper Age culture in the lower Danube valley. These were generally tell sites — ca. 250 are known and some were on top of the earlier Neolithic Boian culture tells. Some had defensive structures — ditch and bank and some palisades. Settlements were small and occupied for only a short time. At least two sites during Gumelniţa A2 phase had houses set in rows.

Pre-Cucuteni (4800-4500 BC) in eastern Romania, Moldova, and Ukraine covered the Late Neolithic and early Copper Age and from this period 167 sites are known. Of these most are small, no more than about one hectare and about 10 structures.

Somewhat later at least 1,848 Cucuteni sites are known in Romania alone, and 40% are assigned to Cucuteni A. The average distance between Cucuteni A sites is 10 km. Sites of the later phases are spaced further apart.

Salt deposits were probably a draw to the area. Copper Age sites were usually near water and some near mineral sources such as copper, salt, flint, or obsidian.

Douglass W. Bailey, the author of "The Figurines of Old Europe," has written extensively on figurines, and his contribution, while concentrating on the group of 21 figures and 13 chairs in the collection, follows his earlier work (see Bailey 2005). Bailey rejects Gimbutas view of the figurines but admits that her views were influential because they were "appealing and easy to understand" and because she held a position at an influential university (UCLA). But, he goes on to say her conclusions had "little logical, rational, or scientific

reasoning...[and that] independent evidence from the archaeological contexts of discovery did not in fact confirm them" (117). Bailey believes that these miniature figures were "handled, played with, worshipped, or cursed in their daily existence"... [and that] the function of these objects is to be found at a deeper level of reality, upon which the community constructed and maintained a sense of who one was, what one should look like, and how one was distance from others." (124) Further, he contends

that none of the thinking that was stimulated by these figurines...can be contained in the reconstruction of a specific cult or religion or pantheon or deity. Instead, the effects that these objects had were much more subtle, the result of long accumulations of visual and tactile stimulations — accumulations of experiences through which people perceived their appropriate appearance within their communities.

The importance of these objects, therefore, is the way in which they contributed to a shared understanding of group identity; they stated without words, but in always present visual and tactile expression, 'this is us' (125).

This is certainly a more abstract view from that of Gimbutas', but it is also just as difficult to prove. The figurines of southeastern and central Europe are intriguing objects. They come in a wide variety of shapes and have been found in a number of contexts, conditions, and cultures that fall into the extensive area of "Old Europe." They remain open to many interpretations, and a definitive answer to their meaning seems elusive.

Cornelia-Magda Lazarovici's essay on "Cucuteni Ceramics: Technology, Typology, Evolution, and Aesthetics," is particularly informative and illustrated with examples both within and outside the collection. She points to other Balkan cultures to which Cucuteni/Tripol'ye is related: the late Boian, late Linear Pottery, and Hamangia cultures, but they ultimately rest on influences from the south coming up through the middle Danube region. "The southern influences originated in Greece" (130) which has the earliest Neolithic dates in Europe. She focuses on the Pre-Cucuteni and Cucuteni cultures of Romania.

From the beginning, Pre-Cucuteni pottery shows great skill and a wide variety of shapes. Many of the vessels have lids,

and Lazarovici suggests that there was a certain amount of flair when the dishes were presented due to the lids. Keeping the food hot may also have been a motive for lids.

The early vessels were created by coils and not until Cucuteni A-B was a slow wheel employed. The first decorated Pre-Cucuteni I vessels were incised and excised and lacked color (see Figs. 6-1, 2, 3). During Pre-Cucuteni II shapes became more elaborate suggesting that the pottery was no longer just for cooking but had taken on an element of status. By Pre-Cucuteni III paint (red and white) was applied to fired vessels but also colored slip began. All of this along with the growing variety in form and elaborate decoration was in place by ca. 4600 BC. The exuberance of these ceramics must be seen in person to be properly appreciated although the illustrations in the catalogue are excellent. The exhibition only provides a tiny glimpse of what the Cucuteni people produced or have survived.

The Pre-Cucuteni and Cucuteni periods are set apart primarily by improvements in kilns, control over firings, and the discovery of minerals that created the pigments for colored slips. Lazarovici does not exaggerate when she says "These innovations elevated Cucuteni ceramic production from an attractive craft to a specialized skill that produced objects of consummate beauty" (134). The discoveries were most likely connected to copper metallurgy which requires high temperatures for smelting.

Lazarovici provides a description of the technical and decorative aspects of the pottery beginning with the Pre-Cucuteni period. The technical aspects of these splendid ceramics had been studied in the early 1980s by Linda Ellis, an American, and her important 1984 work has held up to more recent analysis.

"The Invention of Copper Metallurgy and the Copper Age of Old Europe," by Ernst Pernicka and David Anthony provides a short but very informative history of copper metallurgy which is pertinent to both the copper and gold finds from the Varna cemetery some of which are found in the exhibition.

Current evidence shows that the first metal objects were small, made of native copper, and found in the Near East at the end of the 9th millennium BC. Smelting ore was not involved but heating the soft native copper would have made

it more malleable. The smelting of copper ore was a great leap forward and how this occurred is not completely clear, but it undoubtedly was connected to the kilns that fired ceramics. Because lead melts at a much lower temperature than copper, it may have been smelted earlier than copper. However, due to the tendency of lead to react to atmospheric carbon dioxide, becoming friable lead carbonate, there is little if any evidence for this.

The earliest evidence of alloying probably comes from Mersu in southeast Anatolia and dates to the early 5th millennium. By the mid 5th millennium, about the same date as the Varna cemetery, cast tools of copper with 1.15-4.25% arsenic were made. The arsenic makes the metal easier to cast and results in a harder tool, but the metal is not yet bronze.² The arsenic was most likely a naturally occurring part of the copper ore not intentionally added.

Balkan metallurgy is almost as old as that from the Near East as shown by the early dates, mid 5th millennium BC, of copper mines at Ruda Glava in Serbia and Ai Bunar in Bulgaria.

There are vast deposits of copper in southeastern Europe and the earliest copper objects, awls, fish hooks, rolled wire beads, are found not in southern Bulgaria but in the north in the Starčevo-Criş area away from Near East influence. The earliest smelting evidence is found at Belovode, a Vinča settlement, ca. 5400 BC.

Michel Louis Séfériadès writes on the "Spondylus and Long-Distance Trade in Prehistoric Europe." Many species of Spondylus grow throughout the world but only in warm water, and they loose color when exposed on the beach. They are the oldest long-distance trade item in Europe beginning in the oldest Neolithic (7th-6th millennia BC) and this trade ended with the Neolithic. The range of sites where Spondylus are found mirrors the spread of domesticated grains, cattle, and sheep beginning ca. 7500-6500 in Greece, but there is no Spondylus in Cucuteni/Tripol'ye contexts except in the Karbuna hoard dating to ca. 4500 BC. The usual explanation for the trade of these shells, many of which are found far from the sea, has been one of prestige. Séfériadès, however, is not satisfied with this explanation and prefers to explain them in a connection to shamanism. This would explain their widespread

²The ideal mixture of metals to make bronze is 90% copper and 10% tin. Although arsenic also makes for a good bronze, the disadvantage is obvious.

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distribution, their repair (a broken Spondylus child's bracelet was repaired with two gold fasteners), and the fact that they were handed down from one generation to another.

Vladimir Slavchev writes about "The Varna Eneolithic Cemetery in the Context of the Late Copper Age in the East Balkans." Varna is the oldest cemetery (4400 BC) where people were buried with quantities of gold. Nowhere else in the world is such an amount of gold found for this time period. Slavchev says the gold probably came from the Sakar Mountains near the Turkish border.

The cemetery was discovered in 1972 and over the next few years very rich graves were found creating a flurry of news and television events. The cemetery was well excavated by Bulgaria archaeologist Ivan Ivanov and an excavation crew of prisoners from the Varna prison. Sixty-two graves had gold, and four graves (1, 4, 36, 43) account for over five kilograms of gold (about 13 pounds).

Grave 36 was one of the most sensational graves and proved to be a cenotaph. The finds were spectacular and included: copper and flint tools, a bone figurine, ceramics, and gold items buried in four levels. The gold items were: two sickles, an astragal, two bull figurines, two bracelets, rings, appliqués, a string of beads, a miniature diadem, and a scepter. Because the diadem is a miniature this led Ivanov to suggest that this grave was a symbolic grave for a child. Another theory for this grave is that this was the burial of symbols of power when an old leader was replaced.

There were no surface markers of the graves, and because of the soil conditions, there was poor preservation of bone. Pottery was the most common find. One hundred-forty graves contained flint tools or weapons. Non-local, imported items of gold, copper, shells, spondylus and dentilium, were found in more than 80% of graves. There were 160 graves with human remains and three quarters of these were male in an extended position. Those graves where the remains were in an extended position usually had a battle-axe or small clay pot.

At Varna, 47 graves were cenotaphs three of which contained masks of human faces fashioned in unbaked clay. Each of the masks had gold ornaments including lip rings of spondylus and dentilium shell or mineral beads as well as gold female figurines, but there were no large copper artifacts or battle-axes. The three mask graves had spindle whorls

suggesting the graves were for females real or deified.

The remaining 44 cenotaphs were more ordinary but even here there was diversity in that some had few items and others many. Three of these 44 cenotaphs contained many gold items that together amounted to half of the gold weight of the cemetery. A scepter was found in each of these three graves.

Contracted burials were usually on the right side — only three of 67 were on the left side. Contracted burials had fewer items and metal items were much rarer. These remains had various ornaments and dress ornaments. The age and sex of only 62 individuals were determined to be females, mostly contracted on the right side; males were mostly extended but at the Varna cemetery over 25% of the extended burials were female and over 45% of contracted burials were male.

Grave 43 was a male, 40-45 years old, and had gold items that collectively weighed 1.5 kilograms. This grave had an exceptionally large number and variety of items including ritual items: hat with gold lamellae, earrings, bow and quiver, copper and flint points, scepter, stone and copper axes, gold bracelets, gold necklace, gold appliqué on his clothes, and a stone axe with shaft lined with gold.

The copper objects (160 items) also outnumber any other site from the period, and some items are unique to the Varna area. Analysis shows that the copper came from the area of Burgas 120 km south of Varna and the Ai Bunar mines near Stara Zagora ca. 200 km southwest of Varna. Other items such as flint, carnelian, and shells also came from a distance.

There is clear class distinction amongst the Varna graves. Gold items were sacral and long flint blades were symbolic with no sign of use. Slavchev reminds us that there is "no archaeological evidence of essential differences either in the sizes of the houses or the types of objects in them, suggesting that the newly surfacing hierarchical social relations did not have a strong impact on everyday life in this period" (203). Furthermore, contrary to the belief that funeral customs are conservative "rapid changes in funeral customs were instead *leading* indicators of change" (203) [author's emphasis].

It appears that the high status individuals controlled not only external trade but internal distribution as well, and we should remember there were weapons in some of the rich graves, and the number of weapons in graves increases the

further east a cemetery is situated. Because there are so few luxury goods outside of Varna, Slavchev concludes that "the bearers of the Varna culture were the final consumers" (206) not the resellers of these goods.

By the end of the 5th millennium the Late Copper Age of the Balkans began to disintegrate. Gimbutas' theory of steppe invaders has been criticized but is still debated. New theories include climate change, and this is attested by flooded sites along the Black Sea coast. Most likely there were a combination of factors. But the beginning of the 4th millennium BC saw the end of the sophisticated cultures of the Balkans.

Veaceslav Bicbaev reports on "The Copper Age Cemetery of Giuriuleşti" which was discovered in 1991 on a high plateau on the left (eastern) side of Prut river — the southern most point of Moldova 130 km from Black Sea coast. The plateau overlooks the Danube River valley. North of the river is the western most extension of the Eurasian steppe that extends east to Mongolia. It is from the steppe that nomadic tribes came and who are "assumed to have been the bearers of the Proto-Indo-European language, began to move from the Pontic-Caspian steppes into the Danubian territory at the end of the early Copper Age" (213). [A more detailed map would have been useful here as only the Danube and Dnieper rivers are named on the cover maps, but see the map on p. 26 and even here there is a confusion of river and modern political lines. The Prut runs into the Danube just before the Danube delta at about Giuriuleşti, #131.]

The earliest contact between steppe people and Cucuteni people appears to have been peaceful and began during Pre-Cucuteni III about 4500 BC. Bicbaev places the "first real invasion" during Cucuteni A3 and A4. This he says had "a catastrophic outcome for many of the Balkan cultures" (214). In this he follows the views of Gimbutas and Russian scholars E.K. Chernykh, Y.M. Masson, and N.Y. Merpert (see footnotes 4 and 5).

The cultural group that migrated into the lower Danube was the Novodanilovka culture. This group lacks settlements and buried their dead in both flat graves and graves covered by kurgans. The Novodanilovka graves contained quantities of ochre, the deceased placed on its back, raised knees, head to the East, hands and arms to the side. Grave goods were often

flint items, some copper items, Unio shell or seashell beads, and boar's tusks, some weapons but few ceramics.

The Giuriuleşti graves were found under a large Early Yamnaya kurgan that dates to ca. 3000 BC. The earlier Giuriuleşti graves date between 4490 and 4330 BC. There were five graves in the Giuriuleşti cemetery which covered approximately 200 square meters. Three graves (1-3) were of children, one was an adult male, 20-25 years old, and the fifth grave was an adult of undetermined age or sex. Grave 2, that of a child, had been robbed and the bones were disarticulated. In the remaining four graves the bodies had been placed on their backs with raised knees and there was red ochre on the floors. All the graves yielded rich grave goods very similar to Novodanilovka grave goods. Two of the children and an adult had 19 copper bracelets and five boar tusk pendants, one with copper beads. A Gumelniţa pot was found in Grave 2 (a child) along with a stone axe, a variety of shell and stone beads, four copper beads, and a copper hook. Grave 1, that of a three year old child, had a number of items of particular interest: nine flint blades — one a knife in its right hand, two boar tusk pendants — one with perforation for copper beads; one strand of 75 copper beads; another strand of 420 copper beads; eight copper spiral bracelets, and two fossil shells.

Grave 3 was of a two to three year old child in a catacomb type grave. The grave goods were similar to those in Graves 1 and 2 including stone tools and weapons, boar-tusk pendants, beads copper ornaments and fossil shells.

Grave 5 was a deep grave and contained a boar-tusk pendant, shell pendant, five copper bracelets, and ten strands of copper beads totaling over a thousand beads.

Grave 4, the adult male, had been buried in a very deep (five meters) shaft. This grave produced all the gold from the cemetery and a unique item. Sixteen circlets of white coral beads, perhaps part of a headband or cap, were found on the sides of his head. The unique item was a spear shaft made of wood inset on two sides with 14 flint blades (total 28). The shaft is over 50 cm long with a detachable point made of deer antler. There were two additional antler spear points, one with three gold tubular fittings for the shaft ca. 40 cm long. There were several other antler objects as well as two spiral gold ornaments and a large copper dagger.

Between the graves was an area that is referred to as a

cult place.

This cemetery is very unusual as it has clear steppe elements but also contains gold and copper objects that date to the same period as the Varna cemetery. Another point of interest is the wealth of the children's graves. Bone preservation at Varna was not good, but children are not noted except for the very rich Grave 36 which is mentioned as a possible cenotaph for a child. Later steppe burials indicate that some children were buried with elaborate and unusual grave goods (see Jones-Bley 1994, 1999; Berseneva 2008).

The Lost World of Old Europe exhibit is well worth seeing, and it is regrettable that it is not larger, nor do I believe are there plans for it to travel. As to the exhibit, I have only one problem: several items are labeled Indo-European when they should have been labeled steppe culture. Although evidence suggests that these people from the Eurasian steppe spoke a form of Indo-European language (Proto-Indo-European), it is premature to label them or their artifacts as such.

The catalogue is beautifully produced with many excellent photographs. There are a few minor typographical issues (Tal'yanki p.52 but Talljanky p.84) still nothing at all serious. The major problem is the lack of an index. This would have been a very useful addition at least for site and cultural names. Despite these minor flaws the catalogue is a welcome addition to the ever growing number works dealing with the prehistory of eastern Europe in English.

Karlene Jones-Bley UCLA

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Nadezhda Sergeevna Kotova, *Early Eneolithic in the Pontic Steppes*. Oxford, BAR International Series 1735, 2008. Pp. 310, 154 figures.

In 1986 Dmitry Telegin published his account of Dereivka and the Sredny Stog culture in British Archaeological Reports which provided the first full survey in English of one of the cultures most intimately associated with Marija Gimbutas' model of Indo-European origins (see, for example, Gimbutas 1991, 357-363). The culture was also briefly surveyed in Mallory (1989, 197-203). The culture was reanalyzed, virtually disassembled, in the works of Yuri Rassamakin (1999, 2002) which elicited a revised survey from Telegin in 2001 in a Russian publication reviewed in this journal (Mallory 2004). The most recent Western account is in Anthony (2007, 239-249). The current book revisits a number of the issues examined by Telegin and others and provides a thoroughly updated survey of the Sredny Stog culture as it is currently understood. For those who adhere to Gimbutas' steppe model of Indo-European origins, the Sredny Stog culture is either directly ancestral to if not identical with the Proto-Indo-Europeans.

Kotova immediately sets out to indicate how interpretations have changed. Telegin's Sredny Stog culture comprised 131 sites while Kotova's understanding of the culture limits it to the Early Eneolithic where there are 18 settelement sites and 13 cemeteries; many of Telegin's Sredny Stog sites are reassigned to Kotova's Middle Neolithic Dereivka culture which is the best known of Telegin's Sredny Stog sites. The book then concerns the formation and earliest period of the trajectory that led to Gimbutas' Kurgan culture.

Kotova's study is settlement based as these are the only sites that provide any clear evidence for stratigraphy and cultural development, especially with respect to significant remains of ceramics. The evidence of stratigraphy and ceramics also allows her to argue that the Early Eneolithic possessed a single culture (Sredny Stog) and, unlike Rassamakin who has provided a different model of cultural evolution and terminology, she rejects the concept of an independent Skeljanskaja culture, seeing the remains of its eponymous site as merely a stage in the development of the Sredny Stog culture.

Chapter 3 surveys the burials of the Sredny Stog culture and Kotova provides summary descriptions of each cemetery along with recent dates. In addition to the Sredny Stog and Novodaniloka burials proper, Kotova also includes a number of the 'western' cemeteries of Romania (Decea Muresului) and Bulgaria (Reka Devna) and Hungary (Czongrad). These latter burials comprise the evidence often invoked by Gimbutas to support a First Wave of expansion from the Dnieper-Volga region into Danubian Europe and the chronology of these burials would still seem to be robust enough to accord with such a model. The burials include both flat graves and kurgans with well known steppe characteristics of supine burial but with the legs flexed, the use of ochre, organic mats, and accompanying grave goods of flint tools and weapons, pottery, ornaments (often attached to clothes), copper objects and, occasionally, animal remains.

Chapter 4 analyzes the evidence of settlements and burials from the perspective of regional differences and Kotova divides the Sredny Stog culture into two regional variants: an eastern and a western with the border along the Kalmius river. Radiocarbon dates and cultural synchronization with the better dated Tripolje culture indicates that the eastern variant is

somewhat older and dates c 5300-4250 BC while the western variant dates c 5100-4200 BC. The western cemeteries that comprise Gimbutas' First Wave are typologically associated with the western variant.

Chapter 5 reviews the evidence for material culture and funeral rite. For those who accept Gimbutas' kurgan model for Indo-European origins, this chapter provides a catalogue of Sachen to be matched against whatever Wörter one accepts as Proto-Indo-European. While much of the material can be found in Gimbutas' and others accounts, it is extremely convenient to have these items listed and illustrated all in one place. Moreover, there are two items that are of considerable interest. One is interpreted as a weapon from the cemetery at Giurgulesti. Depicted (in fig. 138, 4) is an object c 50cm long. It has a pointed head of red deer antler mounted onto two long strips of wood into which a double-edged 'sword' was created with the insertion of 28 flint inserts; the handle was of bone. The second object of interest is that entire class of bone and antler objects that in the past have sometimes been interpreted as the cheek-pieces and employed as evidence for horse-riding. Kotova (p. 86) rejects this and from their position in the few burials where they occur (normally they are recovered from settlements) she interprets them as clasps associated with the clothing or bags carried by males.

In describing the funeral rites, generally inhumation with the body on its back and legs flexed, use of ochre, mats, etc., Kotova adds to earlier accounts by paying attention to all the evidence for clothing and ornaments. There is evidence, direct or circumstantial, for reconstructing head-dresses, belts, long shirts, dresses, and various ornaments. She also surveys evidence for the variability in dress, both regionally and temporally.

Chapter 6 covers the origin of the Sredny Stog culture which Kotova traces to the region between the Lower Don and Kalmius rivers. It emerges from its local background in the earlier Lower Don and Surskaya cultures and from there moved westwards. Its contacts with the neighboring Tripolje culture are regarded to have been essentially peaceful and she sees the Tripolje impact on the Sredny Stog culture primarily as a vector for introducing copper metallurgy. The Sredny Stog culture, it is argued, influenced the Tripolje culture by introducing shell-tempered pottery, one of the main coarse

wares on Tripolje settlements. In this she rejects the thesis of both Gimbutas and Dergachev (2000) that the two cultures were essentially in conflict with one another. The Sredny Stog culture also came into contact with populations of the North Caucasus by c 5100-5000 BC. Similarities between the Sredny Stog and Khvalynsk culture of the Volga region are explained by migration from the Don c 5200 BC which assimilated the local Samara population and established a common sphere of interaction that extended from the Volga to the Dnieper.

Chapter 7 reviews the evidence for economy and social structure. Evidence for cereals is extremely meagre and confined to seed impressions on pots which suggest the presence of wheat, barley, millet, bitter vetch and possibly pea. Kotova believes that cereal agriculture began in the Sredny Stog territory by c 6400 BC and that the culture cultivated the cereals and did not simply receive them as part of an exchange system. The domestic livestock included cattle, sheep, goat, pig, horse (listed without comment despite the major debates concerning the time and place of its domestication) and dog; wild animals were also important and comprised red deer, aurochs, ass, saiga, wild cat, hare and otter. Fishing was also practised. In addition to the subsistence economy, Kotova also discusses the exchange system between the Sredny Stog culture and its neighbors. Items traded outwards included both raw flint and flint tools from the Seversky Donets, salt and horses while the Sredny Stog culture imported copper objects. The cemeteries on the periphery of the Sredny Stog culture such as Decea Muresului and Suvorovo are interpreted as evidence for exchange expeditions led by the leaders of Sredny Stog society; these cemeteries interpreted within the framework of Gimbutas' Kurgan theory as evidence for the expansion of the Sredny Stog culture westwards.

In terms of social structure, Kotova suggests small exogamous communities organized within a system of two main clans (clan membership was suggested by variability in the orientation of the graves). She argues that the members of the different clans (numbering between 100 and 1000 members) were distributed across the Sredny Stog area in different settlements. Where there were mutual marriage relationships, the clans composed a tribe (1000-5000 members) which was endogamous and formed a "cultural-

linguistic, and therefore, ethnical unity". Mortuary evidence is skewed towards males so it is not easy to employ burials to assess relative social positions. Of 113 skeletons in the Sredny Stog culture only 46 of them have been identified to age or sex. Of these children constituted 48% of the identified burials, males were 35% and females numbered only 5 (11%). Children had both ornaments on their (funeral?) clothes and special objects distinct from the goods of adults. The coming of age would appear to have fallen at around 17 years. Symbols of power such as maceheads are rare in the center of the Sredny Stog culture and are more prevalent on its periphery in the northern Caucasus or in the west. Kotova suggests that ascribing these burials to chiefs is probably unlikely in that the graves with such symbols are in no other way distinguished from other graves; she argues that the social organization was probably not so hierarchical and that while they may have had 'leaders', they did not actually have chiefs. She also argues that Yuri Rassamakin's suggestion that there was a Sredny Stog elite built on the exchange of copper is unlikely as there was no actual elite. Where we do find many ornaments, she suggests, this seems to have been determined by the age of the deceased or whether they belong to a special craft.

The book concludes with a useful summary. It should be noted that this book does not in any way concern itself with the problem of Indo-European origins and only one of Gimbutas' works is cited in the bibliography. This is probably no bad thing in that there is no obvious ax to grind regarding the interpretation of the archaeological evidence other than strictly archaeological issues. The translation is at times challenging although not really very difficult for one who knows the literature and there are abundant illustrations. From the perspective of anyone requiring an up-to-date source with which to ground test the cultural linguistic evidence for the Proto-Indo-Europeans within the confines of the 'Kurgan' theory, this book is indispensable.

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Klaus Ebbesen *The Origins of the Indo-European Languages/De indoeuropæiske sprogs oprindelse*, København, Attika, 2009, 69pp.

This slim volume, published in Danish and English, sets out "to show that both the proto-Indo-European language and the postulated Indo-European homeland are fictions; that Indo-European...has been spoken in western Eurasia ever since the immigration of *Homo sapiens sapiens* during the last ice age, and that the Indo-European languages as a rule arose and developed in the areas where they were spoken until the beginning of our era" (p. 34). This is a tall order for an English text of only 31 pages that has been padded out with eight pages of description of the various Indo-European language groups. It also should be accompanied by a health warning as it is likely to induce apoplexy among anyone conversant in Indo-European studies.

Dismissing the concept of the archaeological 'culture', Ebbesen suggests that the shared cultural elements found across Europe, for example, are the products of intense intercommunity exchange since the Palaeolithic and that the same

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mechanisms may also have accounted for the spread of the reconstructed Indo-European vocabulary. This invites the concept that Indo-European entered Europe with Homo sapiens sapiens as its first language and the common elements in the reconstructed vocabulary are merely loans between neighboring populations at different times. This argument, presented over no more than a single paragraph, justifies the author's dismissal of the 'historical-linguistic method' which poses the question of why waste time describing the different Indo-European language groups if the comparative method is not valid? When the author indicates that Baltic is closely related to Slavic, what is this supposed to actually mean (more late shared vocabulary?)? By now the reader must be aware that despite frequent citations of linguistic sources, the author has not really grasped their content. How else could one explain his confusion that regards Indo-Iranian and Indo-Aryan as synonyms (p. 46)? Or that the Germanic languages are not attested extensively until the sixteenth century (p. 49)? (I can well imagine an Icelander whacking the author on the head with a copy of Cleasby-Vigfusson; for family reasons I would use Le Morte d'Arthur). Or, more importantly, the distinctions between inheritance and loanwords and how the comparative method addresses these issues.

Geography and time are also pressed into his arguments when the author finds it 'noteworthy' that the earliest attested Indo-European languages are found in the southeast of Eurasia and that the Caucasian race also originates in this region (p. 53). Restating the obvious, it can hardly be regarded as noteworthy that the attestation of the Indo-European languages follows the spread of writing in Europe, a phenomenon which has absolutely nothing whatsoever to do with the emergence and dispersal of a language unless one wants to imagine that the native languages of North America only began with European contact (when they were first recorded) and then spread from east to west (with European expansion)?

At one point the author does make an attempt at providing a logical proof of his hypothesis. He asks whether his model can be falsified, i.e., whether one can actually demonstrate that there was any non-Indo-European language in Europe prior to the Indo-Europeans? Skipping past Uralic and Maltese as peripheral, we know that the author is going to

have to talk himself out of Basque. He does it by claiming that "all the oldest inscriptions known from the geographical area covered by the Basque language are formulated in either Celtic or Latin" which again confuses the vehicle of writing with the existence of a language unless he really believes that the Basques should have invented writing on their own before the spread of Near Eastern scripts. He goes on to maintain that "the earliest texts in the Basque language are in fact from the Late Middle Ages" (p. 55). Setting aside the presence of ancient Aquitanian names, clearly Basque, what is truly noteworthy is the problem that such an approach inevitably leads to: if the Indo-Europeans, be it Celts or Romans, were in Iberia and southern France before the Basques then the Basques had to come from somewhere else? And if Indo-Europeans had colonized this region since the Upper Palaeolithic and there was no one else in Europe at this time who was not Indo-European, we are going to have to look pretty far to find a Basque homeland. The author also looks to Anatolia and rightly identifies the spread of the Turkish languages there to the historical period. Unfortunately, both Hattic and Hurrian are entirely ignored. Etruscan, by the way, is simply regarded as too problematic to be discussed.

In his conclusions the author suggests that the strong division between languages was a modern phenomenon, associated first and foremost with the nation-states in the 19th/20th century" (p. 61) and that the further one receded into the past the more similar the languages become until, presumably, the Palaeolithic where one language was spoken over Europe. This takes us into the admittedly speculative area of trying to assess linguistic complexity during the Palaeolithic (see Mallory 2008) but to keep matters brief, we can ask whether his model here is falsifiable? Does anyone seriously imagine that North America was linguistically homogenous before European contact?

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Culture

Roger D. Woodard, *Indo-European Sacred Space: Vedic and Roman Cult.* Traditions. Urbana: University of Illinois Press, 2006

There is a long history of trying to reconstruct prehistoric institutions and ideologies using the comparative method originally developed in historical linguistics. These efforts have borne for the most part on peoples speaking Indo-European languages; they have involved comparisons of personal names (the major approach in the nineteenth century), narrative patterns, or schemes of organization and relationships among divine and pseudo-historic characters (researches launched primarily by Emile Benveniste and Georges Dumézil in the 1930s and going strong today). A fairly small part of this work has been based on the comparison of ways of organizing space: here the contributions that come to mind are the linkages of the four directions with the Dumézilian functions in Ireland and Wales (Rees and Rees 1961, chapter 5) and in classical India (ibid., pp. 131-133; Dumézil 1971: 253-255).

Roger Woodard's book *Indo-European Sacred Space* is far more focused in scope than its very general title suggests. Woodard offers an extensive and detailed comparison of two ritual complexes: the Vedic soma sacrifices and Roman rituals surrounding boundary markers. In both, his central concern is the delimitation and treatment of territory and the concepts that underlie this treatment. He succeeds, in my view, in demonstrating a series of noteworthy correspondences between the two traditions that are specific enough to constitute real evidence of a common, presumably Indo-European, origin.

While Woodward's thrust is broadly Dumézilian, and while he uses Dumézil's findings as a basis for his conclusions, his presentation is not primarily trifunctional, instead offering a fresh take on comparative material. This point is particularly welcome in a field in which Dumézilian approaches have too often been identified with and limited to arguments about the three (or four) functions.

Here I will go through the structure of the argument briefly, then make some comments about the methodology used and possible further lines of research.

The author presents his work as "a book about two particular bounded spaces — one small, one great — used in the practice of the ancestral Indo-European religion" (p. ix). In fact, the most remarkable parallel between Vedic and Roman sacred spaces dealt with here is their common duality: each contrasts a very limited, highly charged sacred space with a much larger and potentially expanding space of interaction with the outside.

The book has a real intrigue, a plot. In Chapter 1, "The Minor Capitoline Triad", we hear of the building of a new temple to the triad of Roman gods, Jupiter, Juno, and Minerva on the Capitoline hill — but also how two of the older gods that had previously been worshiped in that spot remained in place: Terminus and the goddess Juventas, "Youth". Most of the chapter (from page 11) presents a general defense of the legitimacy of taking a comparative Indo-European view of Roman materials. The Indo-European link provided by Dumézil and Benveniste is essential for Woodard's comparative argument, and the bulk of the chapter is devoted to a synopsis of Dumézil's theories and their application to Rome and a spirited defense of Dumézil against his Romanist detractors. While most of this discussion turns out to have little to do directly with the main points of book, it is interesting in itself and provides a broad basis for the book's project.

Chapter 2, "Terminus", presents parallels between this quite mysterious Roman god and Irish and Vedic sacred stones and gives a first sketch of the two spaces that will be of central concern in the book: the Vedic sacrificial space and the Roman cultic space. Chapter 3, "Into the Teacup", compares Vedic and Roman rituals performed in and about these spaces. Chapter 4, "The Fourth Fire", ninety-nine pages long, "brings us," in Woodard's words, "into the heart of the present work" (p. 142). This is the chapter that opens up the relationship of the limited sacred space of the Vedic sacrifice (devayajana) and of the city of Rome to much larger spaces: in the Vedic case, that of the *mahāvedi*, the always-eastward-moving sacrificial extension, which also appears as a mechanism of conquest; in that of Rome, of the wider space of alreadyconquered territory. Page 155 gives a summary of the book's central argument:

In Vedic India the restricted sacred ground of the three fires, the space of the Devayajana, has adjacent to it a much larger sacred space, the Mahāvedi. In Rome, a homologous spatial and cultic juxtaposition exists. The smaller sacred space of the Roman city, defined by the boundary of the pomerium, is contiguous with a great sacred ground, the Ager Romanus. In India, the sacred spaces, large and small, are temporary structures — in effect, encampments established, then broken up to be established again... Contiguous temporary spaces have given way in the landed society of the Romans to a sacred geometry of a permanent nature.

The chapter also contains some of the discussions that will be of most interest to comparativists. More about this below.

Chapter 5, "From the Inside Out", further develops the idea of sacrificial rite as a way of expanding territorial control and brings the argument back to Proto-Indo-European times.

Using the book

The book's argument winds among topics and sometimes goes into sub-sub-subsections of chapters. The table of contents gives only the chapter titles. Luckily, the Library of Congress entry includes a detailed online table of contents that gives the subsections (http://catdir.loc.gov/catdir/toc/ecip0514/2005017055.html). The reader is urged to avail himor herself of this precious aid.

As is clear from the summary above, the book is primarily about Rome, with the Vedic material being used to prove Roman points. The postscript for further research at the end of the book is entirely about Rome. There's nothing wrong with this — Woodard is a classical philologist — but it means that the title is somewhat misleading. Consistent with this central thrust, the book seems to assume a reader who may find India exotic, but who has a classical education. Thus while the Vedic material is fairly well contextualized, most background knowledge of Rome is assumed. As a non-classicist, I would have been happy to have more information about the Roman authors cited and their relative chronology. The book offers a very helpful chart of the sacred spaces of the Vedic soma sacrifice (p. 144), one of its two great comparands; but since so much of the argument depends on the specifics of Roman geography, a map of Rome, with the roads, boundaries, hills laid out would save the non-Latinist lots of confusion and

searching in other sources.

What Was Dumézil About?

Starting on page 4, Woodard presents Dumézil's tripartition as being essentially one of social structure: "Dumézil," he writes, "perceived that the hallmark of Proto-Indo-European society was its tripartite nature — a society structuring itself into three functions..." Later (p. 12) he reiterates this, writing of "Dumézil's framework for the elucidation of Proto-Indo-European society..." But at least from the 1950s on, Dumézil was very clear that tripartition was a social ideology, not a social order: all that he attributed to the speakers of Proto-Indo-European, and he was very careful about this, was that they could be presumed to have organized their conception of the world, and particularly their pantheon, in terms of three social functions. While this kind of "realist" and ambitious claim does typify Dumézil's earliest formulations as well as Benveniste's rather loose language ("une société structurée et hiérarchisée selon trois fonctions", cited here on p. 15), Dumézil took pains not to make claims about the actual social structure of a prehistoric civilization virtually unknown to archaeology.

This is important: it means that part of Dumézil's theory is that ideology need not directly reflect real social order, but may represent an ideal or pattern very different from that which can be observed to organize people's actual lives. After all, isn't this one of the suggestions of the use of the term "ideology"? And while Dumézil himself might not have been comfortable with the rapprochement, his use of "ideology" is not that different from some contemporary Marxist uses: in both, while there is, presumably, some kind of relationship between social life and ideology, it is not one of reflection, but something more complex and, dare I say, dialectic. This is precisely the kind of argument that Woodard uses to defend Dumézil against some of his Romanist critics, who point to the lack of fit between the tripartite ideology and the actual social structure of early Rome. Woodard points out that there need be no such fit: that as Indo-European languages and the "ideological framework" they carried went from situation to situation, they could leave recognizable traces without becoming the guiding pattern of the society.

Indo-European Comparisons

I have mentioned that the fourth chapter is much longer than any of the others. It is the chapter that contains most of the analyses that the others have set up. Within it, section 4.9 stands out as particularly labyrinthine. 4.9.2, the subsection ostensibly about the mid-day meal at the Ambarvalia sacrifice, is itself 48 pages long, and so constitutes almost half of the chapter. Inside it all the various strands come together, and it is here that Woodard makes most of his boldest comparisons. In fact, it is only here that he goes really far afield to address some major topics in Indo-European studies. For the comparativist, as opposed to the Latinist, this may well be the most exciting part of the book. 4.9.2.3 presents the story of Hercules and Cacus, a revenge for a cattle-theft, which Woodard argues is a preserved piece of old Italic mythology. From here we go into some of the most widely discussed issues in Indo-European comparative mythology. 4.9.2.4 compares this story with the Vedic myth of Indra's defeat of the monster Vrtra, and the next two subsections note parallels with the slayers of three-headed monsters in other Indo-European traditions (cf. Benveniste and Renou 1934, Watkins 1995). Woodard concludes that

in view of the secure Indo-European motif of the hero who slays a three-headed monster, attested by the parallel Indic, Iranian, and Greek accounts, coupled with the Roman predilection for preserving ancient Indo-European religious ideas, structures, and vocabulary, there is a strong a priori case for identifying Hercules' destruction of Cacus as yet another inherited form of this ancient Indo-European myth (p. 196).

Sub-subsection 4.9.2.7 presents a poem by Propertius, and sub-sub-subsection 4.9.2.7.1 offers a defense of the use of classical poets, in spite of their personal creativity, as sources for much older traditional material: "to reject out of hand cross-culturally recurring structure because of the [literary] mantle in which it is cloaked in Rome would be abjectly nonsensical and pitiable squandering of precious data" (p. 203). Here Woodard echoes Dumézil's many critiques of "hypercritical" refusals to consider data (e.g., his defense of his use of Snorri Sturluson in *Loki*, reproduced in Dumézil 1992: 253-282).

The next sub-subsections extend the comparison to what happens to the hero when he goes into exile after the slaying of his enemy, finding specific parallels not only in Italic and Indic, but also in Iranian and Celtic materials, and tying the whole discussion up with that of different kinds of spaces in Vedic India and in Rome. This culminates in a chart on page 217 laying out twelve "structural elements of the slaying of the tricephalic foe" in Indo-Iranian and Italic myth, with seven of the elements recurring in Celtic. And this in turn (subsubsection 4.9.2.10) leads to some theories about the role of Mars and the history of his name, and a new interpretation of a phrase from the Arval hymns (p. 224).

All of this development has taken place within subsection 4.9.2 and has served to reinforce the parallels between the Roman and Vedic rituals. Subsection 4.9.3 consists of a single paragraph on the evening meal, and on we go.

Homology and Analogy; Genetics and Typology

In an important section, which would have been helpful to have at the beginning of the book but unfortunately only shows up at page 88, Woodard enlarges the methodological perspective through a comparison with biology. 1 It comes up in the discussion of Vedic and Roman boundary markers, but is in fact relevant for the whole comparative project. Biologists have traditionally distinguished between homology and analogy. "Among related species, anatomic structures that have their origin in an ancestral organism common to the species are said to be homologous... In contrast, structures that do perform similar functions but which are not of common origin are analogous." Woodard's argument is corresponding details of Vedic and Roman boundary-marking

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¹The homology/analogy distinction is attributed to the anatomist Richard Owen; the date given for the distinction is 1843 (*Lectures on the Comparative Anatomy and Physiology of the Invertebrate Animals*, London). The distinction between genetic and typological comparison of languages was first formulated, without using that terminology, by Friedrich von Schlegel in his book *Über die Sprache und Weisheit der Indier* in 1808. We know that already in the 1830s Darwin was finding inspiration for his theory of biological evolution in the philology of his time and the way it showed languages transforming themselves over long periods (Whitfield 2008). Is it possible that Owen, too, was influenced by philology, specifically by the dual mode of argument already current in studies of language? If so, this would be a case of areal borrowing within the Victorian intellectual world (something that happened a lot: see Burrow 1966). Otherwise, it's a classic case of analogy.

posts, and broadly of the whole sets of materials that he is comparing, are too specific to allow a purely functional explanation in terms of analogy.

Yet some may ask, 'Why could [these structures] not be identified as analogous structures which have developed independently in the two sibling I-E cultures...?' The answer is straightforward... From a purely pragmatic perspective, the redundancy entailed in mounting the argument that closely related, idiosyncratic ritual completely independently structures arose accidentally in two related cultures otherwise showing common ritual and religious structures, having a common origin in a single parent-culture, and so descended from a common ritual tradition, strains the limits of credulity in the face of the elegantly simple and naturally obvious solution of homology (p. 89).

One can only agree. Yet it is a bit odd that Woodard feels has to make a detour via biology to make his methodological point. The immediate source for the kind of comparative study practiced by Benveniste and Dumézil, and now by Woodard, lies closer to hand, in linguistics, and in linguistics we have what amounts to the same division, using the same kinds of arguments. In linguistics since the nineteenth century there have been two basic approaches to language comparison, generally called genetic and typological. Typological analysis identifies structures that fulfill the same functions within a limited field of possibilities, with no regard to history or descent: both Japanese and South Asian languages put the verb at the end of the sentence, both modern Irish and Biblical Hebrew put it at the beginning, without the languages of either of these pairs being genetically related. This is not surprising: there is only a very limited number of possible positions for the verb, and you have to put it somewhere. The relationship is analogical in the biological sense. A genetic analysis, on the contrary, compares languages to see whether they are historically related, that is, descended from a common ancestor, seeking to identify elements that are homologous in the biological sense and to reconstruct a model of the shared ancestral form. Here, as John Colarusso has remarked, the proof is in the details (Colarusso 1998).

The typological possibility, that of analogies, raises real

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questions for the kind of comparisons of directional symbolism proposed by Dumézil and the Reeses and mentioned at the beginning of this review. Given the nature of our planet, a division between east and west, directions of sunrise and sunset, are likely to be found analogously everywhere, as are the sidewise directions north and south. By extension, dividing a territory into quarters based on these directions and assigning them differential values within a domain (colors, seasons, social functions or clan affiliations, parts of the body, elements) is the kind of thought-process one finds in many societies, not only those speaking Indo-European languages. What might be called the typological or analogical literature on the organization and emblematization of space has its own honorable pedigree, perhaps starting with the essay on "Primitive Classification" by Emile Durkheim and Marcel Mauss (1902 [1963]), and continuing as one of the classical themes in anthropology (note, in particular, such influential works as Lévi-Strauss 1962 and Goody 1977). Well-documented cases of the conceptual use of space outside the Indo-European world include ancient China, Aztec Mexico, and the Navajo.

Woodard's book is strictly genetic or homologous in orientation, in spite of his sophisticated discussion of the analogical alternative. And given the nature of the subject, that's a bit disappointing. One would have hoped for at least a reference to the important typological comparative work that's been done on the foundation of cities, notably that of the cultural geographer Paul Wheatley (e.g., 1969, 1971), and, in connection with Rome, Joseph Rykwert's The Idea of a Town, first published in 1976, and I gather something of a classic in urban planning. As the blurb on the back of the 1988 edition puts it, "Rykwert focuses on the Roman town as a work of art, a symbolic pattern deliberately created and enjoyed by its inhabitants — its shape and the structure of the spaces constructed on the basis of beliefs and rituals... The principle institutions of the town, its walls and gates, its central shrines and its public spaces, were all part of a pattern to which the myths that accompanied them provide clues." This represents, in other words, a kind of parallel project to Woodard's but in a typological or analogical rather than a genetic or homological mode. Comparisons here are made not with other Indo-European-speaking societies to try to find a historical link and common ancestor, but with societies in many parts of the world

that have used relatively simple shapes to construct meaningful environments.

In many societies, cities are oriented, bounded, and ritualized, and much of this ritualization is of the nature of the beast. One has to ask to what extent the big space / small space pattern found by Woodard is simply one of a small number of likely patterns available for conceiving "village/surrounding lands" (for an Indian analogue, see Malamoud 1976, English translation in Malamoud 1988) or "conquered land / land to be conquered", the former always being necessarily smaller than the latter.

All of this is to say that this book does not answer all the questions that one might have when approaching the subject. My own impression is that the echoes that Woodard identifies between the two sets of rituals and their attendant myths are specific and numerous enough to be taken as real correspondences, indicating common ancestry.

Can We Reconstruct beyond Language?

I've taken the liberty of looking at some other reviews of this book in composing my own. The two I've come upon (García-Quintelo 2007, Linderski 2008) are both by Latinists and both end their overall highly favorable reviews by expressing skepticism on the central point of the legitimacy of reconstruction: both authors are disbelievers in the reliability of reconstructed forms. For them, the asterix in front of a form does not only mean that it is reconstructed, but that, as a mere hypothesis, it is unworthy of greater elaboration or use in building further. To use starred forms to postulate other double-starred forms is to pile uncertainty upon uncertainty.

This skepticism seems to me to be based on a misreading of the method of historical reconstruction in linguistics. A reconstruction is not mere speculation, but the proposed solution to a puzzle. The reconstruction of proto-languages must be based on the comparison of other reconstructions. There is no other reliable way, and no historical linguist is about to throw up his or her hands because the reconstruction of Proto-Indo-European requires, for instance, a comparison of reconstructed Proto-Germanic and reconstructed Proto-Indo-Iranian. Of course each stage is more hypothetical than the one before, but certain robust facts and structures continue to stand out. What Woodard is doing is, in the wake of

Benveniste and Dumézil, applying standard historical-linguistic method to the evidence we have about rituals and myths. Certainly this extension of method requires greater discussion than it has hitherto received, but there is no a priori reason that a reconstructed ritual, myth, or spatial organization should be any less trustworthy than a reconstructed phoneme, lexeme, or grammatical pattern.

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