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Transcaucasia at the End of the Early Bronze Age

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Transcaucasia was the heartland of the Kura-Araxes, or Early Transcaucasian culture, which holds an important place in the culture history of eastern Anatolia. The transition from this Early Bronze Age culture to the more fragmented regional cultures of the Middle Bronze Age remains poorly defined. The transition is marked by a shift away from fairly autonomous village life, the appearance of evidence for enhanced social hierarchy, and the first use of tin-bronzes in Transcaucasia. Traditional chronology places the transition at the end of the third millennium B.C. However, radiocarbon evidence indicates a mid-third millennium date for the transitional cultures, thus aligning Transcaucasian developments more closely with those in eastern Anatolia and northwestern Iran (late Early Bronze Age) and in Ciscaucasia (Maikop). Transcaucasia seems to have continued to play an important interregional role even after the disappearance of the Kura-Araxes cultures.

Transcaucasia had considerable impact on eastern Anatolia during the Early Bronze Age, when the Transcaucasian style of black and red burnished pottery, architecture, and other artifacts appeared in eastern Anatolia and then in Syro-Palestine. The movement of this culture, variously called Kura-Araxes, Early Transcaucasian, Karaz, and Khirbet Kerak, began late in the fourth millennium B.C., and its effects persisted into the second half of the third millennium. The incursion of the Kura-Araxes culture in the EB I coincided with the collapse of the Uruk-related trading system that had encouraged the emergence of towns and political complexity in eastern Anatolia. The new social order of the early third millennium revolved around village, perhaps even largely pastoralist, life, a relative decline from which even local communities did not recover until strong contact was reestablished with the Syro-Mesopotamian world. The evident relationship between eastern Anatolia and Transcaucasia broke during EB III, and the two regions seem to have had little to do with each other during the Middle Bronze Age.

This picture is constructed from eastern Anatolian evidence, and several recent archaeological developments in Transcaucasia require that it be substantially modified. One development is chronological. The traditional ending date for the Kura-Araxes culture in Transcaucasia, and for the beginning of the local Middle Bronze Age, is around 2000 B.C. New data show that the transition might be as early as 2600 or 2700 B.C. A second development is the discovery of extremely large and richly furnished burials that bridge the transition from the Kura-Araxes culture to the Middle Bronze Age, in the middle of the third millennium. The burials reveal an uneven accumulation of wealth and the emergence of social hierarchies. These elaborate burials invite comparisons with the Alaca Höyük royal graves and the Pontic Early Bronze Age in Anatolia, and with the rich Maikop burials to the north. This article examines the social changes apparent in Transcaucasia during the transition from Early to Middle Bronze Age, assesses the chronology of this transition, and explores the implications for Anatolia of the Transcaucasian evidence.
CULTURE CHANGE IN TRANSCAUCASIA

Kura–Araxes Baseline

Kura-Araxes occupation tended to concentrate in the plains (e.g., Ararat, Shirak) and river valleys (e.g., the Kura) of Transcaucasia (except Colchis, western Georgia). Kura-Araxes settlements generally were no more than 1 or 2 ha large, although a few sites, such as Shengavit, approached 10 ha or more. Although stone walls surrounded some settlements (e.g., Shengavit, Elar), internal architectural differentiation (e.g., house size, public buildings) seems to have been absent. These data suggest the existence, at least in areas like the Ararat plain, of a poorly developed settlement hierarchy that is still little documented. The domestic architecture within settlements conformed to no particular plan, and could consist of free-standing circular to subrectangular houses with one or two rooms (e.g., Kvatskelebi, Khizanaantgora, Imiris-gora, Külp-tepe [Nakhichevan], Yanik-tepe), combinations of several circular and rectilinear rooms agglomerated around open space (e.g., Shengavit), or rectilinear structures of two or more rooms (Amiranis-gora, constructed on stone terracing). Kura-Araxes burials typically were individual, often in stone cists, although some collective vaulted graves are reported (e.g., Horom). Grave goods generally were limited to relatively small amounts of pottery and even fewer other objects. The subsistence effort combined agriculture (wheat and barley) with herding (sheep/goat, cattle). Viticulture and some agricultural terracing imply long-term investment of labor. Metallurgy was the only activity for which some evidence of specialized production exists. Individual ovens at Khizanaantgora and Baba-Dervish II, and tuyeres, ladles, molds, and semifinished objects at additional sites (Kushnareva and Chubinishvili 1970: 113–14, fig. 40; Lordkipanidze 1991: 50; Chernykh 1992: 61–63), indicate production on a relatively small scale. Since the character of settlements and graves indicates little social differentiation or uneven accumulation of wealth, metallurgical production was probably undertaken by part-time specialists, for the satisfaction of local needs. The metalwork involved copper and arsenical copper tools, weapons, and ornaments (Kushnareva and Chubinishvili 1970: Tables 1–3; Kashkai and Selimkhانов 1973; Chernykh 1992: 63–66); very few objects in other metals were found.

The archaeological picture of the Kura-Araxes in Transcaucasia is one of relatively undifferentiated agricultural communities. Indeed, this culture is remarkable more for the extraordinary spread of its ceramic products into northwestern Iran, eastern Anatolia, and Syro-Palestine than for its achievements at home.

TRANSITIONS TO THE MIDDLE BRONZE AGE

The transition from Early to Middle Bronze Age in Transcaucasia involved basic social changes across the region. The most striking changes occurred in burial practices. Collective kurgans containing up to several dozen individuals began to appear during the late phases of the Kura-Araxes culture, in places like Stepankert, Sachkhere, and Tkviiani (Kushnareva and Chubinishvili 1970; Lordkipanidze 1991: 55). These burials, particularly those in Sachkhere (Georgia), contained much larger amounts of metalwork, including silver and gold, than was typical of older Kura-Araxes burials. The pottery changed in several ways. “Graphite burnished” wares, often bearing fine incised decoration appeared at places like Tetri-Tsargo and Amiranis-gora in Georgia, and at Geoy-tepe K.3, Yanik-tepe Early Bronze II, and Haftvan VII in Iranian Azerbaijan (Burney and Lang 1972: 66–67; Burney 1973: 159). Painted pottery also began appearing at sites like Elar, Baba Dervish, and Geoy-tepe (Khanzadian 1979). These changes essentially correspond to the third (and last) phase of Burney’s Early Trans-Caucasian III tradition.

In Georgia, the early kurgans are placed in two transitional phases. The Markopi phase is defined by kurgans at Markopi, Samgori, Trialeti, Amiranis-gora, and Kakhetia, and arguably by the final occupations at Khizanaantgora and Kvatskelebi (Kavtaradze 1983; Pitskhalauri 1984; Lordkipanidze 1991; Djaparidze 1993). The Alazani/Bedeni phase is known almost exclusively from burials, although occupation at Berikidzebi (Glonti and Djavakhishvili 1987) is reported. The kurgans could be very elaborate and extremely large. For example, the burial chamber at Markopi Kurgan 4 was a double timber wall and stone rubble fill, the inner chamber measuring $8 \times 6$ m x 2 m high, with a stone pavement. The burial chamber was covered first with morted stone rubble (40 m across, 3 m thick) and then with earth, to create a kurgan of nearly 1 ha in area and 12 m high. Although most of the Bedeni
kurgans are relatively small, they, too, could reach an enormous size—one kurgan at Alazani (near Tsnori) is 11 m high and 160 m across.

The construction and contents of the burial chambers in these kurgans varied. The rectangular or circular chambers could be erected on the original ground surface or within a pit, and could be built of stone blocks or of timber. The larger kurgans usually contained multiple burials, in which funerary offerings accompanied only a central figure (sometimes cremated). While some of these kurgans contained little in addition to pottery, others were extremely richly furnished with bronze and occasionally silver weapons; bronze, silver, and gold jewelry; carnelian and frit beads; and other objects. The gold lion from Martkopi is a frequently illustrated example of the metalwork. Many of the burials in both phases also contained four-wheeled carts. The Martkopi pottery was generally a black ware, the surfaces of which were highly polished, often to a metallic sheen, and decorated with bands of incised geometric motifs and with some plastic motifs that are derived from Kura-Araxes decorative styles (Mirtskhulava and Mirtskhulava 1986; Djaparidze 1993). Bedeni pottery also is characterized by a fine black ware, polished to a metallic sheen and decorated with incised geometric motifs and modeled “rivets” (Dedabrishvili 1979; Pitshkelauri 1982; 1984; Glonti and Djavakhishvili 1987); the forms and decoration, however, are distinct from both Kura-Araxes and Martkopi-phase pottery.

At the same time that burial customs were changing, the number, and probably also size, of permanent settlements became significantly smaller; by the Middle Bronze Age, settlement had virtually disappeared in many parts of Transcaucasia. This reduction seems not to have been uniform across Transcaucasia, affecting Georgia more deeply than Armenia and Azerbaijan. A few settlements of the transitional phases are reported from Georgia, at Berikldeebi (Glonti and Djavakhishvili 1987), in the Alazani valley (Lordkipanidze 1991: 55), and probably at Khizanaant-gora and Kvatskhelebi. By the Middle Bronze Age even these places had been abandoned, and settlements are not evident in Georgia until the end of the Middle Bronze Age. In central and eastern Transcaucasia, fortified settlements have been investigated at Uzerlik-tepe, Kültepe [Nakhichevan], Metsamor, Garni, Lori-berd, and elsewhere (Abibullaev 1982; Devedzhian 1981; Khanzadian 1969; Kushnareva 1959; 1965). Differential preservation may contribute to the apparent discrepancies in settlement histories between western and central/eastern Transcaucasia. Georgia enjoys higher rainfall and is more heavily forested (all things being equal) than Armenia and Azerbaijan; Middle Bronze Age residences may have been built of timber, perhaps along the lines of the log structures within kurgans (Lordkipanidze 1991).

Despite the scarcity of settlement evidence, the location of cemeteries does provide indirect evidence about the focus of population and activity. Middle Bronze Age kurgans are most commonly found in upland settings (foothills and mountains, including high plateaus over 2000 m above sea level), implying a shift in focus away from the plains and valleys that held Kura-Araxes settlement in Transcaucasia (Burney and Lang 1972: 75–76; Lordkipanidze 1991 citing Kikvidze 1976). This shift toward highland pastures, and the basic collapse of the Kura-Araxes settlement system in the lowland, has led a number of scholars to infer a shift from mixed farming to almost exclusive reliance on transhumant pastoralism, associated with an influx of Indo-European speakers (e.g., Burney and Lang 1972). This inference should not be pushed very far. The continuity of permanent settlement, however tenuous, cannot be ignored. Moreover, the biotic evidence from Uzerlik-tepe directly attests not only animal husbandry (cattle, sheep/goat, pig, and horse) but also cultivation (wheat and barley) and viticulture (Kushnareva 1959: 415). Even in Georgia, the population shift to foothill and mountain settings has been viewed as an adaptation that combined a small-scale irrigation agriculture with animal husbandry, and especially cattle (Kikvidze 1976, summarized in Lordkipanidze 1991: 69; Early or Middle Bronze Age irrigation systems have not been demonstrated in Transcaucasia).

The most spectacular technological changes occurred in metallurgy, evident most clearly in the grave offerings. The quantity of metal found in the archaeological record grew enormously—although his figures must be taken with circumspection, Chernykh (1992: 160) calculates a roughly three-fold increase in the number of recovered copper and bronze objects from Middle Bronze Age (including the transition phases) over Early Bronze Age contexts in Transcaucasia. Moreover, beginning with the transitional phases, appreciable amounts of gold, as well as silver, appear alongside copper and bronze. Tin-bronzes
appeared in both Martkopi and Alazani kurgans, alongside the arsenical bronzes more typical of Kura-Araxes metallurgy. An unpublished study (summarized in Lordkipanidze 1991: n. 456; see also Dedabrishtvili 1979: 61) of the transitional-phase metals from the Iori and Alazani basins indicates that 60 percent of the analyzed objects contain significant levels (3 to 12 percent) of antimony and arsenic, 30 percent contain 5 to 10 percent tin, along with some zinc and lead, and 10 percent are unalloyed copper. In the Sachkhere metals, on the other hand, most of the objects are arsenical copper, with tin-bronze present but rare. Although largely unstudied, the metallurgical repertoire of the Trialeti and related Middle Bronze Age cultures also included tin, along with arsenic and arsenic-tin alloys (Chernykh 1992: 113).

The burial evidence implies the emergence of marked social inequality. The most obvious index of status hierarchy consists of the very different sizes of kurgans and the very different amounts of wealth, notably carts, metal objects (vessels, ornaments, tools, and weapons), and stone work present in them. The practice of multiple interments, in which a central burial is accompanied by wealth and the peripheral figures are much less richly equipped (e.g., in the Alazani group), emphasizes this implication of social hierarchy. In addition, groups of kurgans (e.g., in Meskhetia and at Saduga in Kakhetia) sometimes form spatial hierarchies, in which a central large, single-burial kurgan is surrounded by medium-sized and small kurgans that hold multiple (collective) burials. The existence of specialized production is illustrated in the archaeological evidence, but is implicit in the artistic achievements of Middle Bronze Age metalwork. These craftsmen were probably attached to elite households, in relationships of clientage or other forms of dependency. These observations indicate a strongly differentiated social organization that contrasts with the Kura-Araxes situation. A common Soviet interpretation of Middle Bronze Age social structure suggests the existence of three distinctly marked social statuses—chiefly elites, village leaders and lineage members, and common villagers. The development of social stratification can be attributed to growing elite control over scarce resources, including animals (especially cattle, but also horses), rudimentary irrigation systems in the piedmont (if these existed), and violence. Kikvidze, at least, sees the Middle Bronze Age social situation arising from responses to Kura-Araxes overpopulation and pressure on the dry-farming productivity of plains and valleys, and the resulting shift to uplands where resources are less evenly distributed across the landscape and are more susceptible to elite control (Kikvidze 1976, summarized in Lordkipanidze 1991: 69–70).

**CHRONOLOGICAL ISSUES**

Proposed chronologies of the Kura-Araxes culture have varied enormously. While arguing over periodization, older Soviet opinion generally placed the culture entirely within the third millennium, and a few commentators even attempted to open the Kura-Araxes closer to the mid-third millennium B.C. (Sagona 1984 summarizes this). In his treatment of the subject, Burney (Burney and Lang 1972) placed the Kura-Araxes between the last quarter of the fourth and the end of the third millennium B.C., while Kelly-Bucellati (1979) puts the Kura-Araxes between 3000 and 1800 B.C. By and large, these chronological schemes agree in ending the Kura-Araxes culture around 2000 B.C., the date most often used as the *terminus post quem* for dating various Middle Bronze Age cultures and artifacts in Transcaucasia, including the early Trialeti kurgans, the key stratigraphic sequence at Uzerlik-tepe, and the Tazakend and Kizil Vank styles of painted pottery.

Recent developments have shifted the framework of debate. Kvatradze's (1983) analysis of calibrated radiocarbon determinations indicates that the formation of the Kura-Araxes should be placed in the third quarter of the fourth millennium B.C. or even somewhat earlier, and that this archaeological culture ended in the second quarter of the third millennium B.C. The radiocarbon dates acquired in the past decade have tended to confirm this higher dating (e.g., Badaljan et al. 1992: 48, n. 6; Sagona, Pemberton, and McPhee 1993: 74). Although a number of scholars disagree with Kvatradze's radical revision, a consensus nonetheless has begun to form that the dates of the Kura-Araxes need to be pushed higher.

Even after recent work had defined the transitional Martkopi and Bedeni/Alazani phases in Georgia, the logic of the traditional chronology placed these phases in the second half of the third millennium, thus preserving 2000 B.C. as the beginning of the Trialeti Middle Bronze Age. Kvatradze, on the other hand, cites both the calibrated radiocarbon evidence and some cross-dating evidence to put the transitional phases in the second quarter of the third millennium, thereby dragging the Trialeti kurgans
into the second half of the third millennium and the first centuries of the second millennium B.C. The nine available calibrated radiocarbon dates for the Martkop and Bedeni materials are not very coherent: five dates fall in the mid-third millennium B.C. (with 1-σ ranges of 2800–2400 B.C.), another three in the last quarter of the third or first century of the second millennium, and one in the second quarter of the second millennium.1 These radiocarbon data firmly support neither Kavtaradze’s proposed dating of his EB II period, i.e., first half of the third millennium B.C., nor the more traditional assignment of these kurgans to the last quarter of the third millennium. Moreover, the available data indicate no chronological distinction between the Martkop and Bedeni phases, which cannot represent contemporary regional facies. And appeal to radiocarbon dates from presumably contemporaneous sites elsewhere in Burney’s Early Transcaucasian Culture III (e.g., the “graphite burnished” wares at Yanik and Geoy) introduce equally scattered radiocarbon results.

Despite these negative conclusions, the Martkop and Bendeni phases are most comfortably placed in the mid-third millennium B.C., extending for an uncertain duration into the second half of that millennium. This provisional assignment gains support from the radiocarbon determinations for the Kura-Araxes proper, the relatively small number of which fall in the range of 3500–2700/2600 B.C. (calibrated), with a few slightly later outliers (Kavtaradze 1983; Glumac and Anthony 1992). The scant ceramic connections between Hasanlu VII, Geoy K.3, and late Haftavan VII (Voigt and Dyson 1992: 175; Burney 1973: 159) also lend support to a mid-third millennium assignment, since the 1σ range of the calibrated Hansanlu VII dates generally falls between 2700 and 2300 B.C.

Not unexpectedly, the Middle Bronze Age chronology for Transcaucasia is based on cemetery grave lots. Although the Trialeti kurgans (Kuftin 1941; Djaparidze 1969; Zhorzhikashvili and Gogadze 1974) are the most widely discussed of these cemeteries, many others in use through most of the second millennium are equally important to chronological discussions; among them are Tazaekend, Arich, Lhashen, Elar, Kirovakan, and Echmiazin (Khachatryan 1975; Khazanidze 1979; Kushnareva 1960; Piotrovskii 1949). The bias toward cemeteries has resulted in considerable uncertainty and debate over the periodization and absolute dating of the Transcaucasian Middle Bronze Age. The period as a whole is most easily characterized by the appearance of changing regional styles of painted, incised, and stamped pottery, anchored to analysis of individual tomb lots. Kuftin (1941) began this work in connection with his salvage excavations on the Tsalka plateau, and others have followed (e.g., Martirosjan 1964). These schemes rely heavily on pottery form and decorative style to define chronological phasing of tomb lots, and on external parallels in metalwork, iconography, and pottery decoration to argue absolute chronology. The three-phase stratigraphy at Uzerlik-tepe and the sequence of Trialeti kurgans provide baselines for these analyses.

The general consensus finds a sequence of the following pottery decorative styles:

- the Tazakend black-on-red painted (bow-ties, cross-hatching, and pendant spirals) and the early Kizil Vank polychrome painted (cross-hatched triangles, figures) styles, which occupy an early position in the Transcaucasian Middle Bronze Age;
- the black-on-red painted style typical of Uzerlik-tepe II–III and Lhashen Grave 6 (with hatched rhomboids), and black burnished ware with punctate decoration (wavy lines at Lhashen, arches at Uzerlik-tepe II–III);
- the black-on-red painted (hanging triangles filled with horizontal or vertical lines, birds), and black burnished ware with comb-stamped geometric decoration typical of the rich kurgans at Kirovakan, Trialeti, Echmiazin, and elsewhere.

Several basic problems bedevil these enterprises. In the first place, the relative sequence of burials is often subject to intense dispute. The arguments in the literature over grouping the Trialeti kurgans (summarized by Rubinson 1977) amply illustrate the problem. Since the Trialeti kurgans provide one of the basic reference points for Middle Bronze Age chronology, the result is a measure of uncertainty. In the second place, Middle Bronze Age Transcaucasia was not a culturally homogeneous region, and its different parts contained different pottery styles. Therefore, no single sequence can represent the region, and different sequences (themselves often uncertain) may be difficult to align consistently within a relative framework. In the third place, the estimation of absolute chronology remains extremely shaky. The absolute chronology of the Transcaucasian Middle Bronze Age generally assumes two fixed points—the end of the Kura-Araxes at around
2000 B.C. (plus or minus one or two centuries), and the dating of the late Trialeti and the Kirovakan kurgans to the 16th to 15th (or even 14th) centuries on the basis of parallels with Aegean metalwork (especially socketted spears and rapiers). This last problem is central to the question of relative Transcaucasian and eastern Anatolian chronology. The redating of the Kura-Araxes and the definition and likely dates of the Early-Middle Bronze Age transitional cultures moves the presumed beginning of the Middle Bronze Age into the third millennium B.C. Kavtaradze's dating of the Trialeti kurgans illustrates the consequences of a higher Middle Bronze Age chronology.²

The early Middle Bronze Age Trialeti kurgans contain black burnished pottery (decorated with incised motifs, grooves, and knobs) that is similar to Kura-Araxes pottery, but few metals. Remarking on the similarities in pottery and assuming the Kura-Araxes to end around 2000 B.C., many commentators (e.g., Rubin 1977; Lordkipanidze 1991) assign the Trialeti Group I kurgans to the first few centuries of the second millennium B.C. Kushnareva uses the same logic to place Uzerlik-tepe I in the same chronological position. The middle group of Trialeti kurgans is characterized by the appearance of two new pottery styles, a black burnished ware decorated with comb-stamped geometric motifs and a brown-on-buff painted ware. The kurgans of this group contain a rich inventory of metals, including the famous goblet from Kurgan V and the silver bucket from Kurgan XVII. The equally rich Kirovakan kurgan in Armenia holds similar pottery and metalwork. Rubin (1977: 243) draws attention to parallels between representations on cylinder seals at Kül-tepe [Cappadocia] II–Ib and scenes on the Trialeti goblet and bucket, thus affirming Gogadze's dating of this group of kurgans to 1800–1600 B.C. The punctate-decorated black burnished pottery at Uzerlik-tepe II–III and Lchashen (a few examples of which appear in the Trialeti kurgans), as well as the black-on-red painted style in Uzerlik-tepe II–III, then, belongs to the second quarter of the second millennium B.C., as do the analogous materials from the Kirovakan kurgan.

Kavtaradze's chronological assessment of these materials, not surprisingly, is very different. Having defined a mid-third millennium B.C. EB II (the Martkopi and Bedeni burial materials), he assigns the early Trialeti kurgans to his EB IIIA and the middle group of kurgans to his EB IIIB (Kavtaradze 1983: 118). Kavtaradze wants to date his EB IIIA roughly to the third quarter of the third millennium, and his EB IIIB to the late third and early second millennia B.C. These dates are derived from his dating of the Martkopi and Bedeni transitional phases and his appeal to selected parallels with jewelry, metal ornaments, vessels and weapons in Mesopotamia, Syriá, Anatolia, and the Aegean. Kavtaradze's chronology gains additional support from the recently discovered Karashamb kurgan, which belongs to the Trialeti-Kirovakan complex. Among other metal objects, the kurgan contains a silver goblet decorated with narrative scenes of warfare and ritual ceremony (Oganesian 1992), one element of which is an Indugud figure that can comfortably be placed with late third millennium Mesopotamian images.

The late group of Trialeti kurgans contains a black-on-dark-red painted ware, a common motif being hanging triangles filled with horizontal or vertical wavy lines; other pottery decoration includes pattern burnishing and raised knobs (separate or combined), along with poorly executed comb-stamping and incision. Gogadze places this group in the 16th and 15th centuries B.C., an assessment that Rubinson supplements with ceramic parallels at Haftavan VIb, which she argues to date ca. 1650–1500 B.C. (cross-dating with Dinkha-tepe and Hasanlu); the formal similarity of a gold cup in Kurgan VII with ceramic cups at Uzerlik-tepe II (Kushnareva 1965: 94, fig. 29 compares these cups with the silver cup from the Kirovakan kurgan); and mid-second millennium Aegean parallels with the copper cauldron and socketted spear in Kurgan XV. This evidence puts the late Trialeti group in the 16th and mid-15th centuries B.C. Kavtaradze (1983) considers the late kurgans to be the only Trialeti materials properly assigned to the Middle Bronze Age, which he dates to the second quarter of the second millennium B.C. This chronological position incorporates the metal parallels with neighboring regions, and places less reliance on the northwest Iranian ceramic parallels.³

**INTERREGIONAL CONSEQUENCES OF A HIGHER CHRONOLOGY**

In the higher chronology of Kavtaradze and others, the emerging tradition of elaborate kurgan burials and the sharp social hierarchies that these burials express in Transcaucasia can be synchronized with the tradition of wealthy burials of the Maikop culture to the north and with the Alaca Höyük and Pontic burials of north-central Anatolia.⁴ The Maikop
kurgans and the Alaca Höyük and Pontic graves are often compared with each other, whether in the search for chronological anchors or in argument about migration or ethnolinguistic identity. The rich Martkop and Bedeni kurgans of Transcaucasia can join this interregional horizon of wealthy burials, but only if the rough contemporaneity of all three groups can be maintained. The evidence in hand is inadequate to decide the question, though the early Maikop tombs are probably somewhat older than the Transcaucasian and central Anatolian groups. The material inventories of the Transcaucasian transitional Early–Middle Bronze Age and central Anatolian burials share few formal traits. However, both groups contain significant amounts of both gold and tin-bronze, marking the first concerted appearance of this metallic complex in their respective areas. Both groups mark the emergence of social stratification in their respective areas.

The higher dating of the transitional and Middle Bronze Age cultures in Transcaucasia also has the effect of aligning the contemporary social changes with developments in eastern Anatolia. The archaeological record of the Elazığ/Malatya area—the best understood portion of eastern Anatolia—documents two cycles of increasing and decreasing social complexity, the first correlated with the Late Uruk phenomenon in the late fourth millennium B.C. and the second dated to the EB III in the mid-third millennium; the influx of Kura-Araxes elements separates these two cycles (Palmieri 1985; Conti and Persiani 1993). The second cycle is marked by increasing numbers of occupied sites and population; the construction of city walls at Norşun-tepe and Tepekkı during the second quarter of the third millennium and at Arslantepe soon after, and the erection of monumental buildings at Norşun-tepe and Korucutepe reveal the reemergence of settlement hierarchies and stratified societies by EB III (Conti and Persiani 1993). Similar trends occurred even more emphatically in southeastern Anatolia and in Syro-Mesopotamia (Weiss 1986; Wilkinson 1990). In addition, the public building in Kül-tepe [Cappadocia] 11 and its EB III antecedents (Özgüç 1986) signal an emerging political complexity that culminated in the city-state and settlement of the lower town (karum), beginning perhaps around 2200/2100 B.C. (Ortmann 1974).

The EB III urbanization and state formation occurred roughly synchronously across different areas of Syro-Mesopotamia and Anatolia as these regions grew more closely tied together by trade and other connections. Even the settlements of the Malatya/Elazığ region contained growing proportions of Syro-Mesopotamian and southeastern Anatolian pottery. Archaeological evidence for these strengthening interregional contacts seems to be confined to the Euphrates drainage; and very few, if any, materials unambiguously link Transcaucasia with the Malatya/Elazığ region or areas further south. The indications of contacts between central Anatolia and the urbanizing Euphrates are somewhat stronger (Özgüç 1986; Griffin 1980), but still less numerous than those along the Euphrates. Moreover, a rough gradient existed in which the evolutionary trend toward urbanization and state formation was strongest in the south, more attenuated to the north. The Early–Middle Bronze Age transition in Transcaucasia may be fitted to this gradient as an example of a more weakly developed social hierarchy without urbanization. The accumulation of wealth in mid-third millennium B.C. Transcaucasia and north-central Anatolia thus occurred within less hierarchically structured societies (chiefdoms) around the edges of state development.

The massive accumulation of wealth in burials on the Trialeti plateau and in other parts of Transcaucasia during the terminal third and early second millennium B.C. had an analogous interregional context, namely that of the Syrian kingdoms, the central Anatolian city-states with truly urban centers and walled towns along the upper Euphrates, and active long distance trade. The very existence of towns and cities in these southern and western areas identifies political landscapes that were utterly different from that of Middle Bronze Age Transcaucasia. And as was the case earlier, the Transcaucasian evidence contains few objects that point to direct contacts with societies to the south during the Middle Bronze Age. Nevertheless, some Transcaucasian pottery and metalwork indirectly identify contact with neighboring regions.

The Middle Bronze Age painted pottery styles of Transcaucasia are documented no farther into eastern Anatolia than the Erzurum/Kars area to the west and the Muş/Van area to the south (Kushnareva 1960: 144; Çilingiroğlu 1984; cf. Rothman 1994: 285–86), while in western Iran these styles are limited by the northern end of the Urmia basin (represented by the strong ceramic parallels between Haftavan VI and Kül-tepe [Nakhichevan] III; for the latter, see Abibullaev 1982: tab. 27–29). However, the Transcaucasian painted wares often are compared to painted styles of other regions, not only to help date the Transcaucasian Middle Bronze Age, but also to
find an origin of the Transcaucasian styles and to identify the origin of presumed migrations into the region. The most frequent comparisons are with Cappadocian Painted Ware to the southwest, Khabur and Urmia wares to the south, and Giyan IV–III painted styles to the southeast. These styles share a number of motifs and some arrangements of motifs, but are very distinctive in their decorative composition and vessel forms. To the extent that these styles share a “family resemblance,” the early Middle Bronze Age painted wares of Transcaucasia belong to a very general stylistic horizon that stretched from Cappadocia to the Zagros at the end of the Early Bronze Age and the beginning of the Middle Bronze Age. But while this resemblance may help identify interacting regions, it does not index the strength of interaction: the contemporary Malata-Elaziğ painted wares present the most generic parallels even though they are geographically close to the Transcaucasian region.

In addition to the forms of many metal weapons and ornaments, the iconography of decorated metal vessels from Trialeti, Karashamb, Kirovakian, and elsewhere attests to significant contacts with southern regions. The parallels in the formal arrangements of scenes with Kül-tepe [Cappadocia] glyptics (Rubinson 1977: 243) already have been mentioned. A small cottage industry (see Lordkipanidze 1991: 66) is devoted to finding parallels for individual design elements, and to identifying the subjects represented on these objects; the Hittite spring festival and the Telepinu myth are popular options. Regardless of the mythic contents of the objects, the iconography itself betrays the effect of contacts with regions to the south. In this regard, objects like the silver goblets at Trialeti and Karashamb are expressions of a Transcausian elite political culture that emulated some symbolic representations of state power borrowed from the south.

TRANSCAUCASIAN AND ANATOLIAN CONNECTIONS

The political organization implicit in the repeated immobilization of wealth by burial relies on steady accumulation of wealth as a medium of elite display by which political authority is achieved and maintained. The kind of political organization implicit in the Transcausian kurgans or the Alaca Höyük elite burials was present in most emerging states, including the Early Dynastic II–III city-states of southern Mesopotamia and in the wealthy burials at Ur, Kish, Susa, and elsewhere. But the third-millennium states of Mesopotamia and Syria also formalized kingship within bureaucratic offices, whereas Transcausian chiefdoms did not, and could not, institutionalize power in this fashion. Although these two forms of political organization relied on foreign trade for accumulating wealth, the political dynamics of Transcausian chiefdoms were founded upon the continuous creation or acquisition of new display goods, whether by trading or raiding, around the edges of developing or mature state societies.

Transcausia has an abundance of copper, and was the major source of the arsenical copper found in Ciscaucasia and the southern Russian steppes during the Early and Middle Bronze Ages (Chernykh 1992). But the ready availability of this metal in Anatolia makes the Transcausian sources redundant on the interregional market. Tin, as well as some gold and some semiprecious stones, are obvious commodities of exchange. Despite Yener’s still controversial work at Kestel and Göltepe (Yener et al. 1989; Yener and Vandiver 1993), the sources of tin used in ancient western Asia remain uncertain. Transcausia is sometimes thought to have tin sources, but this too is extremely doubtful (Selimkhanov 1978). Most recent opinion suggests sources in northern Afghanistan, but this possibility remains unproven. In any case, the textual evidence of the Old Assyrian Cappadocian trade and of later Assyrian records implies acquisition of tin from undetermined eastern or northern sources and transshipment into central Anatolia.

The appearance of tin-bronze in Transcaucasia by the mid-third millennium B.C. was contemporary with its first extensive use in western and central-northern Anatolia. This technological and economic development coincided with sharply increased amounts of gold in the same areas. Moreover, new copper sources were being exploited in western Anatolia during Troy II, according to isotopic lead ratio analysis (Muhly and Pernicka 1992). These coincidences raise the strong likelihood that a new network of trade in metals (tin, gold, copper) emerged during the mid-third millennium, linking Transcaucasia and north-central Anatolia with the Aegean in the west and possibly with Central Asia in the east. Significant use of tin-bronze and increased amounts of gold made virtually contemporaneous appearances in mid-third millennium Syria (according to the Ebla texts), Mesopotamia, and Iran
(Moorey 1982; Stech and Pigott 1986; Waetzoldt and Bachmann 1984). Transcaucasia thus occupied a strategic position, intermediate between Central Asia to the east and western Anatolia to the west, of a trade network along the northern tier of multiple, and probably overlapping, trading systems that connected distant parts of western Asia through much of the Bronze Age.

Seen in these terms, the formation of ranked societies in Transcaucasia, and in the Pontic area, during the mid-third millennium depended on the emergence of the northern exchange network, since this trade presented critical opportunities for elite control over scarce, symbolically charged resources. But just as important, the ranked societies at the edges of emerging state societies in eastern Anatolia and Syro-Mesopotamia helped stimulate an interregional circulation of wealth that contributed to the origin of these southern states.

NOTES

1 Kavtaradze (1983: 107) cites the following radiocarbon determinations for the Markopi kurgans, calibrated to one standard deviation (using the CALIB 3.0.3 program):

| Markopi 4  | GX-9252  | 4065 ±155 b.p. | 2880–2400 B.C. |
| Markopi 4  | TB-325   | 4010 ± 80 b.p.  | 2610–2460 B.C. |
| Markopi 3  | TB-317   | 3775 ± 50 b.p.  | 2280–2050 B.C. |
| Markopi 4  | LE-2198  | 3640 ± 40 b.p.  | 2030–1930 B.C. |

His dates for the Bedeni phase include the following determinations:

| Alazani kurgan | UCLA-?   | 4120±50/–90 b.p. | 2870–2580 B.C. |
| Alazani kurgan | TB-208   | 4105 ± 50 b.p.   | 2860–2510 B.C. |
| Khranebi      | TB-242   | 4030 ± 50 b.p.   | 2590–2470 B.C. |
| Alazani kurgan| LJ-3271  | 3800 ± 60 b.p.   | 2320–2140 B.C. |
| Bedeni        | TB-30    | 3330 ± 60 b.p.   | 1680–1520 B.C. |

The determination TB-208 is cited after Dedabishvili (1979: 25); Kavtaradze (1983: 29) quotes this determination as TB-243 and makes it 3985 ± 50 (which calibrates to 2570–2460 B.C.).

2 The relative order of the Triateli kurgans has exercised scholars since their discovery (Rubinson 1977), and this is not the forum for rehearsing the evidence and arguments in full. Gogadze's (Zhorzhikashvili and Gogadze 1974) grouping of the Triateli graves is widely followed or corroborated in extremely disparate analysis (e. g., Rubinson 1977; Kavtaradze 1983), and will be used here. In this analysis, the Middle Bronze Age Triateli kurgans falls into three groups, the early group encompassing Kurgans III, VIII, IX, XIV, XVII, XXXIII, XXXIX, XLII, and XLIV; the middle group Kurgans V, VI, XVI, XVIII, XXIX, XXXI, XXXIV, XXXVI, and XLV; and the late group Kurgans I, II, VII, XV, XXVIII, XXX, XXXII, and XII, and Sabitakhcha 5.

3 Since Rubinson's analysis, the Haftavan VI pottery has been more fully published (Edwards 1981; 1983). Painted hanging triangles appear on Early as well as late Haftavan VIB jars (and also on Geoy-tepe D jars; Brown 1951: fig. 20: 430), and so are not restricted to contexts in which polychrome painting appears. Therefore, the Haftavan VIB parallels span the first half of the second millennium B.C. (Burney 1983 suggests dates of Haftavan VIC–B).

4 Just as with the Transcaucasian Early Bronze Age, the recent tendency has been to raise the dates of the Maikop phenomenon on the strength of calibrated radiocarbon determinations or comparisons with Mesopotamian artifacts. Kavtaradze (1983) cites a series of carbon dates that make the Maikop and Novosvobodna phases of the Maikop phenomenon contemporary with the Markopi and Bedeni phases, respectively, i.e., the early-mid third millennium B.C. Andreeva (1977; 1979) appeals to ceramic and iconographic parallels with Late Uruk Mesopotamia and Amuq F Syria to argue a late fourth millennium date for the early Maikop phase. The presence of Kura-Araxes ceramic elements in association with Maikop materials in western Georgia and the Caucasus range (Phakadze 1988; Markovin 1992) support an earlier dating, but only if the Kura-Araxes culture itself emerged by the mid-third millennium. The cited western Asian parallels are often generic or long-lived, and arguments for the traditional mid-third millennium dating of early Maikop can still be sustained (Glumac and Anthony 1992: 205–6). Similarly, some (e.g., Thissen 1993) propose to raise the date of the Alaca Höyük graves to the early third millennium, from their usual assignment (e.g., Ortmann 1963) to the EB (II–) III.

5 These conclusions are based largely on using the Arslantepe, Norşun-tepe, and Tepecik sequences to reassess the changing settlement patterns indicated in previous surveys, including those of Whallon (1979) and Russell (1980). Whallon infers a very different settlement history for the Elazığ area.

6 The black burnished pottery of the Kura-Araxes tradition was, of course, still part of the Early Bronze Age assemblages in the Malatya/Elazığ region. However, this pottery has a local character, which differs considerably from the pottery in both the late Kura-Araxes facies (Sagona 1984) and the Early–Middle Bronze Age transitional phases of Transcaucasia; its presence in the
Malatya/Elazığ area does not itself imply active interaction between the two regions. Occasional objects assignable to the Early–Middle Bronze Age transition or to the Middle Bronze Age do occur, notably a mitre-shaped obsidian point from Norşun-tepe VI (Hauptmann 1972: 110, pl. 68.5), a form that appears in Martkopi/Bedeni kurgans and continues through the Middle Bronze Age.

One case is a footed cup with two vertical loop handles from Tomb 65 at Arich, with Cilician parallels (Khachatryan 1975: 117, fig. 71). A small number of Late Bronze Age and Early Iron Age tombs at Artik, Lchashen, Metsamor, and elsewhere contain Mesopotamian seals and weights in Old Babylonian, Mitannian, and other second-millennium styles (Martirosyan 1964: 91; Khachatryan 1975: 131, fig. 77; Khazadjan and Piotrovskii 1992; Khazadjan, Sarkisian, and Diakonoff 1992). These objects in Late Bronze to Early Iron Age graves reflect the circulation of used glyptics in Transcaucasia during the second half of the second millennium B.C.; although seemingly absent from Middle Bronze Age graves, these objects may have begun trickling northward early in the second millennium.

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