

Investigating Cultural Transformations of the Bronze Age along the Alborz Mountain Range

Mojtaba Safari¹, Mohsen Entezarian², Saman Soortiji³

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Abstract

The transition from the late 4th millennium BCE to the Bronze and Iron Ages along the northern and southern slopes of the Alborz Mountains is a major topic in archaeology, closely linked to the emergence of urbanism. Archaeological research indicates that with the end of Sialk III, many settlements, including those on the Qazvin Plain, collapsed. Similar processes occurred during the early 3rd millennium BCE in regions such as Kashan and Tehran. Although new settlements appeared in the Qazvin Plain during the later 3rd millennium BCE, the areas of Tehran, Qomrud, and Kashan were reoccupied only after a significant gap. In contrast, the northern flank of the Alborz displays a settlement history distinct from that of the southern side. While evidence for the influence of Sialk III in the north is limited, substantial occupation during the 3rd millennium BCE suggests divergent cultural developments on the two sides of the Alborz. This study draws on archaeological data from excavations and surveys in the northern and southern Alborz Mountains to examine Bronze Age (3rd millennium BCE) cultural developments. It highlights interaction networks linking the Gorgan Plain, southern Turkmenistan, Mazandaran, northeastern Iran, and the Central Plateau through exchanges of raw materials, technologies, and pottery traditions. Evidence from sites such as Tepe Hissar, Tureng Tepe, Ghal e-Ben, Ghal e-Kash, Tepe Kalar, and Qoli Darvish demonstrates cultural diversity, overlapping ceramic traditions, and continuous or discontinuous occupational sequences. The article emphasizes a contrast between the cultural hiatus of the Iranian Central Plateau and the flourishing development of the northern Alborz, particularly eastern Mazandaran and the Gorgan Plain, where regional interaction networks expanded. By contrast, the southern Alborz reflects migration, settlement disintegration, and environmental adaptation. Overall, the study identifies the Central Alborz as a key corridor for cultural interaction and interregional networks during the Bronze Age.

Keywords: Bronze Age, North and South Central Alborz, Pottery/Ceramics, Trade and Cultural Networks, Cultural Continuity and Discontinuity.

1. Department of Archeology, Faculty of Cultural Heritage, Handicrafts and Tourism, University of Mazandaran, Babolsar, Iran (Corresponding Author). **Email:** m.safari@umz.ac.ir
2. Department of Archaeology, Faculty of Art and Architecture, University of Mazandaran, Babolsar, Iran.
3. Iranian Center for Archaeological Research (ICAR), Institute of Cultural Heritage and Tourism (RICT), Tehran, Iran.

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Introduction

During the Bronze Age, sedentary societies achieved significant advancements in technology, architecture, economy, and agriculture, leading to an expansion in the size of settlements (Basafa, 2024a: 50; Masson & Sarianidi, 1972: 113). Cultural interactions between adjacent regions began in the second half of the 4th millennium BCE (Oursaria, 2007: 141) and intensified throughout the Bronze Age until the mid 2nd millennium BCE. A complex trade network emerged, facilitating the transfer of raw materials, goods, people, and ideas (Vahdati, 2015: 38). This period is characterized by extramural relations, socio economic complexity, the formation of cities, urban economies, and increasing specialization (Garazhian & Lotfi Qaraei, 2015: 55). Regional cultures developed across different parts of Iran, and due to the proliferation of exchanges, some archaeologists have referred to this era as the “Period of International Trade” (Amiet, 1993). Archaeological evidence—including bronze artifacts, precious stones, counting devices (Schmandt Besserat, 1992), shaft hole axes (Basafa, 2024a), trade routes (Matthews & Fazeli, 2004), settlement hierarchies (Gibbon, 1984), and Painted Red and Gray wares—provides important indicators of cultural interaction during this period.

The study of cultural interaction gained prominence in the mid 20th century CE as scholars sought to reconstruct the social history of ancient societies through material evidence (Childe, 1951). Processual and evolutionary approaches explained cultural change in relation to environmental resources (Steward, 1942; White, 1959). Subsequently, scholars examined increasing socio economic complexity within ancient societies (Service, 1971). Ecological approaches also became important in the analysis of archaeological sites and materials (Clark, 1989). Influenced by the New Archaeology, topics such as the organization of production and distribution systems, as well as patterns of cultural interaction, were further explored (Peacock, 1981; Van der Leeuw, 1981, 1987; Rice, 1987; Arnold, 1991; Costin, 1991; Clark, 1995). In Southwest Asia, cultural interactions began in the second half of the 4th millennium BCE and continued until the mid 2nd millennium BCE. These interactions contributed to the establishment of trade networks, the exchange of raw materials and artifacts, extramural contacts, the movement of people and ideas, the formation of central institutions, increasing socio economic complexity, and greater specialization (Wright, 1984; Brumfiel & Earle, 1987; Earle, 1997; Wright & Johnson, 1975: 267). Within this broader context, the Iranian Plateau played a crucial role in the developmental processes of Southwest Asia during the 4th and 3rd millennia BCE (Tosi et al., 1992; Kohl, 1978; Karlovsky & Kohl, 1971; Thornton, 2013; Thornton et al., 2013).

Furthermore, the manner in which the 4th millennium BCE came to an end and urbanism began constitutes an important issue in the archaeology of both the northern and southern flanks of the Central Alborz. Although limited evidence exists for the influence of the Sialk III culture in the northern Alborz region, studies indicate that with the end of Sialk III many key settlements—such as those in the Qazvin Plain—collapsed. In

general, the settlement history of the northern flank of the Alborz during the 4th and 3rd millennia BCE differs significantly from that of the southern flank. Moreover, the level of cultural complexity among human societies in the 3rd millennium BCE varied across the two sides of the Alborz. This variation is partly related to the fact that contemporary civilizations both within and beyond the political borders of the Iranian Plateau, such as the Helmand and Jiroft civilizations, had already developed many characteristics associated with urbanism.

Research Questions and Hypotheses: The primary questions of this research concern the processes associated with the end of the 4th millennium BCE, the beginning of the Bronze Age, the development of urbanization, and ultimately the onset of the Iron Age across the northern and southern ranges of the Alborz Mountains. This study also seeks to clarify how these transitional processes unfolded and what characteristics accompanied them. The importance of these questions lies in the fact that this chronological span in Iranian archaeological studies—particularly in the northern and southern regions of the Central Alborz—still contains many ambiguities and shortcomings in terms of data interpretation and chronology. Fortunately, recent research has partially provided the means to identify the characteristics of cultural and social continuity or discontinuity during these periods. Building on these developments, the cultural dynamics of the 3rd millennium BCE on the southern and northern flanks of the Central Alborz can be examined and re evaluated with greater precision.

Methodology: The present study is based on a library and document based method of data collection. Relevant data were gathered through a review of scholarly sources and archaeological excavation reports from the study area—the northern and southern Alborz regions—as well as adjacent areas. Using a descriptive analytical approach, this study examines cultural trends, patterns of continuity or discontinuity, and both intra regional and interregional interactions within the northern and southern Alborz region.

Research Background

Data from excavations and archaeological research conducted over the past few decades demonstrate that extensive interactions occurred across the Iranian Plateau from the late 4th millennium BCE through the 3rd millennium BCE. It is likely that numerous communication routes, particularly those passing through desert margins, facilitated cultural connections among different regions. Excavations at Shahdad ([Kaboli, 1973](#); [Hakemi, 2006](#)), Tepe Yahya ([Lamberg Karlovsky, 1970](#); [Lamberg Karlovsky & Tosi, 1973](#)), and Jiroft ([Majidzadeh, 2003](#)) in the Kerman region; at Shahr e Sokhte in Siستان ([Tosi, 1969, 1983](#); [Seyed Sajjadi, 2002](#)); at Tal e Malyan in Fars ([Sumner, 1974](#)); in southwestern Iran ([Alden, 1982](#)); at Godin Tepe ([Young, 1969](#)); and in northwestern Iran at sites such as Hasanlu ([Dyson, 1967](#)), Goy Tepe ([Brown, 1951](#)), Haftavan ([Burney, 1970](#)), and Yanik Tepe ([Burney, 1961](#)) have significantly transformed our understanding of the Bronze and Iron Ages on the Iranian Plateau. These investigations

have contributed to a clearer understanding of cultural processes during the late 4th, 3rd, and early 2nd millennia BCE. However, despite excavations at sites in the southern Alborz—including Tepe Sofalin (Hessari et al., 2007), Ozbaki (Majidzadeh, 2010), Shoghali (Hessari & Akbari, 2007), Sagzabad (Talaie & Aliyari, 2014), and Arisman (Helwing, 2007; 2011)—and in the northern Alborz region at sites such as Tepe Hissar, Damghan (Schmidt, 1937; Dyson & Howard, 1989); Tepe Challow (Vahdati & Biscione, 2014; 2015); Shahrak e Firouzeh (Basafa, 2024b); Shah Tepe, Tureng Tepe, and Yarim Tepe (Arne, 1945; Deshayes, 1968a–b, 1976; Stronach, 1972); Narges Tepe in Gorgan (Abbasi, 2011); Gohar Tepe (Mahfrouzi, 2007); Yaghout Tepe, Behshahr (Mahfrouzi, 2006); Tepe Kalar, Kelardasht (Mousavi Kouhpar & Abbas Nejad Sarašti, 2007); Ghal e Kash, Amol (Amirkolaei, 2009); Ghal e Pay (Mahfrouzi, 2009a); Tarkam Tepe, Sari (Mahfrouzi, 2009b); Komishan Cave (Vahdati Nasab, 2009); Tepe Abbasi, Neka (Abbas Nejad Sarašti, 2009); and recent excavations at Ghal e Ben in Babol County (Fazeli Nashli, 2018; Safari et al., 2021; Fazeli et al., 2022a)—our understanding of these periods in the Alborz region remains limited. Consequently, the processes marking the end of the 4th millennium BCE, the emergence of the Bronze Age and urbanism, and the beginning of the Iron Age on both the northern/northeastern and southern sides of the Central Alborz (the Iranian Central Plateau) still contain significant ambiguities and gaps in terms of data interpretation and chronological frameworks.

The Bronze Age (3rd Millennium BCE) in the Northern Flank of the Central Alborz

The Bronze Age in the northern and northeastern flanks of the Central Alborz is represented by sites such as Anau III, Namazga IV–VI, Hissar II–III, Shah Tepe II, Yarim Tepe III, Tureng Tepe III–IIB, and Narges Tepe III. Evidence for the Early Bronze Age has been identified at sites including Namazga IV; the lower layers of Anau III and Altyn VIII–IV; Khabur Tepe XII–III; Ulug Tepe; Aq Tepe; Shah Tepe II; Tureng Tepe IIIA; Narges Tepe IIIC; Tepe Yam; Qaleh Khan, Shirvan; and the upper valleys of the Atrek, as well as Hissar IIB–IIIA and Challow. In Mazandaran, archaeological layers corresponding to this phase have been identified at sites such as Gohar Tepe, Tepe Kalar, Ghal e Kash Tepe, Tarkam Tepe, Tepe Sad, Ghal e Pay Tepe, and Ghal e Ben in Bozrudpey. Middle Bronze Age layers are documented at Namazga V and in parts of Anau III and Altyn III–I, which are contemporary with Hissar IIIB, Yarim Tepe III, Shah Tepe II, Tureng Tepe IIIB, Narges Tepe IIIB, Challow, and Shahrak e Firouzeh. Archaeological layers at Gohar Tepe, Tepe Kalar, Ghal e Kash Tepe, Tarkam Tepe, Tepe Sad, Ghal e Pay Tepe, and Ghal e Ben in Bozrudpey (Mazandaran) also correspond to this phase. Evidence of the Late Bronze Age has been identified at Namazga VI (the Gonur Phase), Hissar IIIC, Shah Tepe IIA, Narges Tepe IIIA, Tureng Tepe IIIC, as well as at the aforementioned sites in Mazandaran.

Cultural Interactions and Regional Dynamics

In general, during the late 4th millennium BCE, Tepe Hissar—unlike in earlier periods, when it was closely linked to the Central Plateau—established stronger cultural connections with northeastern regions, the Gorgan Plain, and southern Turkmenistan (Thornton, 2013; Thornton et al., 2013). During this period, the production of Burnished Gray Ware became widespread, creating a degree of homogeneity between the ceramic industries of Hissar and sites on the Gorgan Plain. In southern Turkmenistan, however, a distinct cultural divergence emerged through the production of two different pottery traditions: gray ware and buff ware (Turkmenian). The distribution of Gray Ware extended southwestward, reaching the Shahrud and Damghan plains, while Buff Ware spread toward the southeastern regions of Turkmenistan, including the Murghab and Tejen deltas (Garazhian, 2005: 69–98).

During the Bronze Age, cultural similarities can be observed between Central Asia and the eastern half of the Iranian Plateau. Despite limited evidence of Proto Elamite influence—such as a small number of tablets—both regions lacked a fully developed writing system, which represents a shared characteristic. Moreover, the use of non local stones such as marble and chlorite/steatite for producing tools, vessels, and ornaments suggests possible connections between these regions and Iran. One of the most significant aspects for examining these connections is the development of urbanism during the Middle Bronze Age in southern Turkmenistan, which may help clarify the cultural and social relationships between these areas.

During the initial phase of this period, urbanism reached a high level of development, and extensive interregional relations were established between major centers such as Altyn Tepe and Namazga with regions including Sindh, Afghanistan, Iran, and even Mesopotamia (Olson, 2003; Masson, 1988, 1992; Sarianidi, 1971; Kohl, 1978; Kirtcho, 2009). However, in the late Middle Bronze Age, some settlements were abandoned, and the size of large centers such as Namazga was significantly reduced, in some cases shrinking to the scale of villages. This crisis—likely related to environmental constraints—led to the migration of populations from Namazga V into the mountainous valleys of Khorasan (Garazhian, 2005: 69–98). The situation became more critical during the late Namazga V phase and the beginning of Namazga VI. Sites such as Khabur Tepe and probably Altyn Tepe were completely abandoned, and the Tejen region was depopulated. Nevertheless, exceptions such as Takhirbay and Togolok continued to be occupied from the Late Bronze Age into the Iron Age (Kohl, 1984: 195). In the final stages of the Late Bronze Age, contemporaneous with Namazga VI, the Bactrian–Margiana Archaeological Complex (BMAC), also known as the Greater Khorasan Culture, emerged. This development has generated significant discussion concerning the transition from the Late Bronze Age to Iron Age I (Yaz I), as well as the similarities and continuity of this process in both the eastern (Mary) and western (Bactria) regions of southern Turkmenistan and its connections with northeastern Iran (Iravani Qadim et

al., 2017; Tahmasbi Zaveh & Iravani Qadim, 2015). Although Masson and Sarianidi proposed a hiatus between Namazga VI and Yaz I (Masson & Sarianidi, 1972), Khlopin argued that no such break existed. According to his interpretation, the late Namazga VI phase represents both the final stage of the Late Bronze Age and the beginning of Iron Age I. He demonstrated the continuity of ceramic traditions across these periods and suggested that late Namazga VI should be considered the natural historical and cultural foundation of the Early Iron Age (Khlopina, 1981: 44).

The Gorgan Plain and Mazandaran

The Gorgan Plain occupies a particularly important position in the study of these processes because it represents a natural convergence zone linking the Iranian Plateau, the Turkmenian oasis belt, and the Trans Caspian steppes. Deshayes described this region as a frontier between the settled urban and rural populations of Iran and the nomadic groups inhabiting the adjacent and Trans Caspian steppes (Deshayes, 1968a). Evidence indicates that the Gorgan Plain experienced significant transformations in technological innovations—especially in ceramics—as well as in cultural and demographic interactions from the late 4th millennium BCE to the first half of the 2nd millennium BCE. The sudden or gradual abandonment of settlements during the Late Bronze Age (Masson & Sarianidi, 1972: 291–310), together with cultural homogenization, migration, and demographic shifts (Deshayes, 1968b; Mousavi, 2008), illustrates some of these developments. One of the most influential issues in this context is the emergence of Burnished Black and Gray Ware in the Gorgan Plain and its surrounding regions, a phenomenon interpreted in some cases as gradual and in others as abrupt.

Within this broader context, the eastern and central parts of Mazandaran—together with the Gorgan Plain forming an important section of the northern flank of the Central Alborz—are particularly significant for analyzing these developments. Archaeological data from sites such as Gohar Tepe, Ghal e Kash Tepe, Tarkam Tepe, Tepe Sad, Ghal e Pay Tepe, Ghal e Ben (Tepe Bozrudpey), and other sites provide valuable evidence for understanding these cultural processes. Recent studies at the sites of Ghal e Ben and Ghal e Kash in Mazandaran suggest that many settlements previously attributed to the Iron Age actually belong to the Late Bronze Age (ca. 1600–1500 BCE) (Safari et al., 2021). This conclusion is supported by stratigraphic evidence, absolute chronology, and ceramic comparisons. Of approximately 350 identified sites in Mazandaran, 15 have been attributed to the Bronze Age and 252 to the Iron Age. However, many of the sites classified as Iron Age—due to the absence of absolute dating, stratigraphic excavation, and systematic ceramic classification—may in fact belong to the Bronze Age (ca. 3200–1500 BCE) (Heydari, 2017; Heydari et al., 2018; Fazeli Nashli et al., 2023: 135). Tepe Sad in southern Sari has yielded Buff Ware (IIb) comparable to that of Hissar IB, as well as Gray and Black Burnished Ware in the upper layers. These ceramics are plain and lack incised decoration. Both wheel made and handmade pottery have

been identified at the site ([Mahfrouzi, 2013](#)). Gohar Tepe in Behshahr (ca. 3400–1900 BCE) contains occupational layers from the Late Chalcolithic, Bronze, and Iron Ages ([Piller & Mahfrouzi, 2009: 3](#)). Late Chalcolithic pottery of the Caspian type has been identified, although no associated architectural remains or tools have been discovered ([Mahfrouzi, 2007: 351, 358](#)). Middle Bronze Age burials (ca. 3100–2300 BCE) and a Late Bronze Age cemetery (ca. 1600–1500 BCE) have also been identified. The pottery associated with these contexts shows similarities to ceramics from Hissar IIIB–IIIC and the Parkhai cemetery in Turkmenistan ([Piller & Mahfrouzi, 2009: 5](#)).

At Tarkam Tepe in Sari, various pottery types dating from the Chalcolithic to the Late Bronze Age have been identified. Bronze Age ceramics include polished gray ware, polished black ware, and gray wares with geometric incised decoration. A notable example is a tall footed polished gray vessel with incised motifs on its body, comparable in style and form to tall footed vessels from the Hissar IIB and Shah Tepe IIA ceramic traditions (Early and Middle Bronze Age) ([Mahfrouzi, 2009b](#)). Ghal e Kash Tepe is an important Bronze Age settlement in the northern Alborz that, based on relative chronology, appears to have experienced continuous occupation from the Early to the Late Bronze Age. The Bronze Age pottery from this site is comparable to that of Hissar IIIC and Shah Tepe IIA ([Safari et al., 2014](#)).

Tepe Kalar in Kelardasht is another key Bronze Age site in Mazandaran, providing valuable information about the cultural developments and absolute chronology of the region. Excavations and radiocarbon dating indicate continuous occupation from the Chalcolithic through the Bronze Age, Iron Age, and Islamic periods ([Mousavi Kouhpar & Abbas Nejad Sarašti, 2007: 127–128](#)). Absolute dates include approximately 3723–3540 BCE, 2880–2830 BCE, and 2299 BCE. Evidence suggests a gradual transition to the Bronze Age and a degree of cultural continuity; however, the precise nature of continuity or discontinuity between certain occupational layers remains unclear ([Heydarian, 2011](#)). During the Early Bronze Age, Kura Araxes pottery characterized by gray and black fabrics with zigzag and linear motifs appears. In the Middle Bronze Age, an increase in dark gray and black pottery with incised decoration is clearly evident.

The site of Ghal e Ben (Bozrudpey) in Babol County, according to radiocarbon dating, was occupied from the late Chalcolithic period (ca. 3200–1450 BCE) and emerged as an important regional center by the end of the 4th millennium BCE. Occupation continued through the Middle and Late Bronze Ages but appears to have ceased during the transition to the Iron Age, possibly due to environmental changes. Late Chalcolithic pottery at the site is predominantly red, brown, and light gray, with brown to red or sometimes entirely gray fabrics ([Fazeli Nashli et al., 2022a: 122](#)). Typologically, this pottery shows similarities with ceramics from sites such as Gohar Tepe ([Mahfrouzi, 2007](#)), Ghal e Kash ([Amirkolaei, 2009](#)), and Komishan Cave ([Zare Khalili, 2010](#)). Ceramic typological analysis also indicates cultural connections between Ghal e Ben and northeastern Iranian sites such as Shah Tepe III–IIb ([Arne, 1945](#)), Tureng Tepe

IIA ([Deshayes, 1968–1976](#)), and Narges Tepe IV ([Abbasi, 2011](#)). Bronze Age pottery at Ghal e Ben is predominantly gray and includes a range of light and dark shades, with burnished, incised, and dotted decorative motifs. A small number of Kura Araxes type pottery fragments have also been identified, suggesting cultural connections with western and northwestern Iran. On this basis, Ghal e Ben may represent the easternmost extent of Kura Araxes cultural influence ([Fazeli Nashli et al., 2022a: 124](#)).

The Bactrian–Margiana Archaeological Complex (BMAC) and Northeastern Iran

During the second half of the 3rd millennium BCE (Namazga V), significant developments occurred in human societies in the oases of Bactria, Mary, and the foothills of the Kopet Dag. These developments gradually spread eastward and influenced the Bactria region of northern Afghanistan. This process ultimately led to the formation of a culture known as the Bactrian–Margiana Archaeological Complex (BMAC) ([Masson, 1988; Sarianidi, 1998: 35](#)). This culture, which continued the cultural traditions of the Kopet Dag foothills ([Hiebert, 1994; Sarianidi, 1981](#)), influenced important settlements in northeastern Iran during this period. These include sites such as Chalow Jajarm ([Vahdati & Biscione, 2014; 2015](#)), Jeyran Tepe in Esfaryen ([Vahdati, 2016](#)), Eshgh Tepe in Bojnurd ([Vahdati, 2014](#)), Shahrak e Firouzeh in Neyshabur ([Basafa, 2024b](#)), Kalat e Shouri (Qarachehmeh) in Neyshabur ([Basafa, 2015](#)), Damghani Tepe in Sabzevar ([Vahdati & Frankfort, 2010](#)), Fereizi Tepe in Sabzevar ([Sabouri et al., 2015](#)), Choupan Tepe in Bardaskan ([Heydari & Babazadeh, 2016](#)), and Naderi Tepe in Mashhad ([Habibi et al., 2015](#)), among other sites in the region.

BMAC influence can also be observed at major settlements in the Gorgan Plain, including Tepe Hissar in Damghan ([Schmidt, 1937](#)), Shah Tepe ([Arne, 1945](#)), Tureng Tepe ([Deshayes, 1968a–b, 1976](#)), Narges Tepe ([Abbasi, 2011](#)), Bazgir Tepe ([Abbasi et al., 2012](#)), and other sites in the region. A notable aspect of this period is the establishment of an extensive network of contacts with southern regions, particularly the Kerman region and the Shahdad and Jiroft cultural sphere, replacing earlier connections with the Helmand region. A similar pattern of interaction had already been observed during the Namazga III period (late 4th to early 3rd millennium BCE) (see: [Hakemi, 2006; Pittman, 2014, 2019; Salvatori, 2008; Vidale, 2017](#)). Cultural similarities between the BMAC and Hissar traditions became particularly apparent during the Hissar IIIC period (ca. 2300–1600 BCE). The differences between this phase and the preceding IIIB layer, together with the burning of the most important building of the IIIB phase (the “Burnt Building”), have been interpreted as evidence for a possibly non peaceful arrival of new populations associated with the BMAC or Greater Khorasan cultural sphere at this settlement. This phenomenon is often described as the expansion of the BMAC sphere of influence into northeastern Iran and its impact on Tepe Hissar ([Tahmasbi Zaveh, 2015](#)). The similarities between the cultural materials of the Gorgan Plain and those associated

with the BMAC have also been interpreted as evidence of trade and cultural interaction. Metal artifacts discovered at sites on the Gorgan Plain closely resemble the products of Hissar IIIC. At the same time, the absence of evidence for local metalworking activities in the Gorgan Plain and the lack of arsenical copper mines in the region suggest that these artifacts were likely imported from Tepe Hissar ([Tahmasbi Zaveh, 2019: 243](#)).

Gray ceramics discovered at Shahrak e Firouzeh, characterized by burnished gray surfaces, closely resemble the gray pottery traditions of northeastern Iran ([Basafa, 2024b](#)). These ceramics are particularly comparable to pottery from Hissar IIIB ([Schmidt, 1937: 181](#)) and settlements on the Gorgan Plain such as Tureng Tepe ([Deshayes, 1965: 91](#)). The presence of similar pottery types in Central Asia ([Sarianidi, 2008: 63](#)) further highlights the significance of these connections and suggests the existence of extensive interregional contacts. Between approximately 3200 and 1600 BCE, the northeastern regions of Iran and Central Asia appear to have been culturally interconnected, a relationship reflected in similarities in pottery, metal artifacts, beads, and various figurines.

The Bronze Age (3rd Millennium BCE) in the Southern Flank of the Central Alborz

Evidence for the Early Bronze Age on the southern flank of the Central Alborz has been identified at sites such as Qoli Darvish, Sialk IV, Arisman, Maral Tepe, Yousef Khan Khavesh, Kuopandeh Tepe, the Shizir site, Dowranabad, Shir Tal, Pardis Tepe, Araštou Tepe, and Meymandabad. Middle Bronze Age layers have been identified at Sagzabad, Qoli Darvish, and Eštark Joushqan. Evidence of the Late Bronze Age has been documented at Tepe Qabrestān, Sialk A, Qoli Darvish, Shizar, and Qareh Tepe.

Cultural Hiatus and New Traditions

On the southern flank of the Central Alborz, which includes the plains of Tehran, Qom, Qazvin, and Isfahan, archaeological evidence indicates that the Early Bronze Age began with the end of the Sialk III period. Based on radiocarbon dating, Sialk IV 1–2—corresponding to the Early Bronze Age and the Proto Elamite culture (Proto Literate Period)—has been dated to 3300–2900 BCE ([Fazeli Nashli et al., 2013](#); [Pollard et al., 2013](#)) and 3400–2900 BCE ([Vidale et al., 2018](#)) (see: also: [Vatandoust et al., 2011](#); [Noukandeh, 2010](#); [Sarlak et al., 2013](#)). Abrupt changes in pottery forms and types distinguish Sialk IV 1–2 from the final layers of Sialk III (III 6–7b).

Early Bronze Age pottery includes spouted pitchers, gray green globular jars, double handled jars, goblets, and handled goblets from Sialk IV 1 ([Ghirshman, 2000: 68–69](#)), as well as late painted vessels of Hissar IIB and gray vessels of Hissar IA ([Schmidt, 1937](#)). Additionally, beveled rim bowls recovered from Ozbaki ([Majidzadeh, 2010: 51–52](#)) and Meymandabad ([Yousefi Zoshk et al., 2018: 240](#)), together with similar examples from the sites of Shoghali and Sofalin ([Hessari et al., 2007: 141–143](#)), indicate new

cultural features during the late Chalcolithic and the beginning of the Bronze Age in this region. The most important sites representing the Proto Elamite period on the Central Iranian Plateau include Sialk IV 2, Arisman C3A–E, Maral Tepe (Ozbaki Layer VIII), Qoli Darvish (Layers II 5–1), and Tepe Sofalin. This period is characterized by the reappearance of specific geometric motifs—such as checkerboard and four square designs—the use of polychrome pottery, burial jars, beveled rim bowls, platters, pedestal vessels, open and closed mouth vessels, and nose lug jars. At sites such as Qoli Darvish and Sofalin, local varieties of gray, black incised, and brown pottery have also been identified ([Helwing, 2011: 196](#); [Sarlak et al., 2013](#)). Evidence from recent excavations and studies suggests that the Central Plateau hosted large, multi period settlements whose material culture was influenced by three main cultural spheres: the Proto Elamite culture of southwestern Iran, the Kura Araxes culture from the Transcaucasus and northwestern Iran, and the Gray Ware tradition of northeastern Iran ([Fazeli Nashli et al., 2022a: 154](#)). The coexistence of local cultural traditions and the Kura Araxes culture is discernible in this region between approximately 3000 and 2400 BCE. In the Qazvin Plain, the Kura Araxes culture appears from the beginning of the 3rd millennium BCE, whereas in areas such as Yousef Khan Khavesh in the Qom Plain it appears around 2700 BCE ([Sarlak, 2020](#)). Clear cultural connections were also established during the Bronze Age between the Central Plateau and regions such as the Central Zagros, southwestern Iran, and eastern Iran within parts of the Zayanderud Basin ([Ilkhan et al., 2019](#); [Shojaee Esfahani & Rafiei Alavi, 2020](#); [Rafiei Alavi & Shojaee Esfahani, 2020](#); [Rafiei Alavi et al., 2021](#); [Fazeli Nashli et al., 2022b](#)).

With the end of Sialk III and the beginning of Sialk IV (Early Bronze Age), many settlements on the southern flank of the Central Alborz—particularly in the Qazvin, Kashan, and Rey Tehran plains—collapsed, and new settlement patterns emerged. The precise reasons for this discontinuity remain unclear, but settlement density appears to have reached a minimum during much of the 3rd millennium BCE, with signs of renewed occupation emerging only in the late 3rd and early 2nd millennium BCE. In the Qazvin Plain, the process of site abandonment began around 3400 BCE, and only a few sites maintained continuous occupation until the end of the 3rd millennium BCE. After the abandonment of Tepe Qabrestan around 3450 BCE ([Pollard et al., 2012](#)), a prolonged settlement hiatus occurred until sites such as Sagzabad were reoccupied during the Middle Bronze Age ([Fazeli Nashli et al., 2022b: 155](#)). In contrast, the Shizir site in the southwestern Qazvin Plain and the Zagros foothills remained continuously occupied throughout the 4th and 3rd millennia BCE, a pattern that continued into the 2nd millennium BCE ([Pollard et al., 2012](#); [Fazeli Nashli et al., 2022b: 155](#)). Evidence from the Meymandabad site in the Tehran Plain suggests cultural continuity between the Sialk III 7 and Sialk IV 1 phases. This evidence also indicates connections between Meymandabad and settlements such as Sialk, Qabrestan, Hissar, and Ozbaki ([Yousefi Zoshk et al., 2018: 243–244](#)).

The Early Bronze Age sequence at Shizir and related sites, dated to approximately 3000–2500 BCE, begins with Kura Araxes style pottery. Shizir and sites such as Dowranabad demonstrate connections with northwestern Iranian sites including Yanik, Kul Tepe, Haftavan, and Goy Tepe, as well as with Central Zagros sites such as Godin, Pissa, and Garab (Fazeli Nashli et al., 2013). Shizir and Shir Tal in the Qazvin Plain were small villages that remained occupied throughout the 3rd millennium BCE. These sites suggest that the regional population shifted from a pre urban settlement structure to a small scale agro pastoral village economy (Vidale et al., 2018; Fazeli Nashli & Abbas Nejad Sereshti, 2005; Fazeli Nashli et al., 2022b).

Economic, social, administrative, political, religious, and environmental evidence from prehistoric sites on the Central Iranian Plateau suggests the existence of both intra regional and interregional systemic connections. Analysis of these data indicates that the subsystems of prehistoric societies in this region sometimes resisted, aligned with, or adapted to internal and external changes. The appearance of cultural phenomena such as Uruk pottery (in Sialk III 7b and Sialk IV 1) and Proto Elamite pottery and administrative elements (Sialk IV 2) on the Central Iranian Plateau can therefore be interpreted as responses to external influences. Major settlements such as Sialk IV, Arisman, Qoli Darvish, Maral Tepe, Tepe Hissar, and Sofalin likely functioned as primary centers with productive, distributive, and administrative roles. These centers probably supported and organized networks of smaller surrounding settlements, although at the peak of their development they experienced processes of fragmentation and displacement.

In this region, complex local societies experienced sudden collapse, a process that may be understood as a simplification of social structures and a reduction in levels of social stratification (Tainter, 1988: 193). Such collapse does not necessarily imply the disappearance of culture or civilization, nor the complete destruction of socio political groups (Zovar, 2012: 40–43). Rather, these groups likely continued to exist through processes of reorganization, displacement, and transformation (Yoffee, 1988; Janusek, 2005: 177). The social, economic, and political transformations of these societies during the Middle and Late Bronze Ages remain poorly understood, and the region appears to have experienced a long occupational hiatus during much of the 3rd millennium BCE (Talaiei, 2011: 134).

One of the key sites on the southern flank of the Central Alborz where cultural sequences between the Middle and Late Bronze Ages can be studied is Sagzabad Tepe in the Qazvin Plain (Talaiei, 2011). At this site, two contemporaneous ceramic traditions have been identified: Painted Red Ware with connections to northwestern Iran, and Gray Ware with decorative features comparable to northeastern Iran (Talaiei, 2011: 135). At other sites in the Qazvin Plain, polychrome and monochrome ceramics—including gray wares and buff painted vessels, as well as Urumieh Ware (monochrome or polychrome decoration on a red or dark orange background)—were widely used during the first half of the 2nd millennium BCE in both the northern and southern parts of the Central

Iranian Plateau, including at Sagzabad, Shir Tal, and Qoli Darvish ([Azizi Kharanaghi & Moradi, 2011](#); [Velayati et al., 2017](#); [Sarlak & Hessari, 2018](#)).

The Tehran Plain, which had been occupied since the 6th millennium BCE and experienced increasing cultural complexity, population growth, craft specialization, and expanding interregional trade during the 5th and 4th millennia BCE, underwent a long occupational hiatus after the Proto Elamite period around 2900–2800 BCE. This hiatus lasted until approximately the 16th century BCE ([Vidale et al., 2018](#); [Fazeli Nashli et al., 2013](#); [Fazeli Nashli et al., 2022b](#)). One of the most important sites in this plain is Pardis Tepe, which indicates that the region was reoccupied during the first half of the 2nd millennium BCE. Evidence of cattle burial has been identified at this site, resembling Indo European traditions, along with what may represent the earliest evidence of horse burial on the Iranian Plateau. With the exception of a few buff and brown sherds, the pottery from this site is predominantly gray. These ceramics are comparable to those from sites such as Sagzabad, Khorvin, Qeytarieh, Sareh, Qoli Darvish V–VI, Sialk A–B, Hasanlu V, Godin, Giyan I, Dinkhah III, and Giveh Tepe, as well as more distant sites such as Bidak, Rezvan Tepe, Besh Darreh, Ashkhaneh, the Kalpush Plain, and Jeyran Tepe ([Young, 1969](#); [Danti, 2013](#); [Medvedskaya, 1982](#); [Sharifi & Motarjem, 2014](#); [Hejabri Nobari & Dana, 2018](#); [Vahdati, 2016, 2018, 2020](#); cited in [Fazeli Nashli et al., 2022b: 157](#)).

Evidence from sites such as Qoli Darvish, Yousef Khan Khavah, Kuopandeh Tepe, sites 013 and 051, and especially the “Saba 9” site suggests that occupation existed in the southern Central Plateau from around 2700 BCE, with population growth continuing throughout the 3rd millennium BCE and regional as well as interregional exchanges becoming increasingly common. In general, the eastern part of the Zayanderud River Basin appears to have experienced a period of florescence between 2700 and 2200 BCE, while other regions of Central Iran experienced a sharp decline in the number of settlement sites ([Fazeli Nashli et al., 2022b: 158](#)).

The site of Qoli Darvish shows evidence of connections with southwestern Iran, Mesopotamia, and northeastern Iran during the Proto Elamite period. Following this phase and a hiatus of approximately 300 years, occupation resumed at the site between 2700 and 2500 BCE. During this phase, cultural similarities between Qoli Darvish, Godin, and the Kura Araxes cultural sphere suggest a form of cultural amalgamation in the Qom Plain during the second quarter of the 3rd millennium BCE. The importance of this plain increased during the Middle Bronze Age (2300–1900 BCE), accompanied by a rise in the number of settlements and population growth. During the first half of the 2nd millennium BCE (1900–1400 BCE), Qoli Darvish also maintained close connections with sites such as Hissar IIIB–IIIC and Shah Tepe IIa ([Fazeli Nashli et al., 2022b: 156–163](#)).

Excavations at the Estark Joushqan cemetery in the Kashan region have revealed evidence of occupation during both the Bronze and Iron Ages. The cultural materials

from this site resemble those from nearby sites such as Qoli Darvish, Sialk, Ozbaki, and Sareh. Possible connections with the Andronovo cultural sphere have also been suggested. The cemetery contains evidence of chamber or shaft graves similar to those identified at Shahr i Sokhta, Shahdad, and Tepe Hissar ([Fazeli Nashli et al., 2022b: 164–167](#)).

The Bronze Age of the Central Iranian Plateau—particularly the Middle Bronze Age—remains one of the least understood periods in the archaeology of the region due to the limited amount of available data. A general chronological framework divides the Bronze Age into four phases: Early Bronze Age 1 (Proto Literate Culture / Sialk IV), Early Bronze Age 2 (Kura Araxes Culture), Middle Bronze Age, and Late Bronze Age ([Fazeli Nashli et al., 2022b](#)). Early Bronze Age 1 (3400–2900 BCE) corresponds to the Sialk IV cultural horizon and is characterized by clay tablets with pictographic signs and pottery associated with the Proto Elamite tradition. The relative homogeneity of material culture during this period in the Kashan, Qom, and Tehran plains suggests cultural and political connections with southern, southwestern, and western Iran. Early Bronze Age 2 (2900–2200 BCE) corresponds to the expansion of the Kura Araxes culture, with evidence primarily from Shizir and some unpublished material reported from Araštou Tepe in the Tehran Plain. The Middle Bronze Age (2200–1800 BCE) and Late Bronze Age (1800–1500 BCE) have been identified at sites such as Qoli Darvish, Shizir, and Qareh Tepe Sagzabad; however, the available archaeological evidence for these periods remains limited ([Fazeli Nashli et al., 2022b](#)). Given the scarcity of well dated sites, this chronological framework should be regarded as provisional. The proposed dates—especially for the beginning and end of the Middle Bronze Age and the end of the Late Bronze Age—are largely relative, and future excavations will likely refine both the chronology and the cultural characteristics of these periods.

Analysis of the Bronze Age along the Central Alborz Mountain Range

Archaeological studies on the northern flank of the Central Alborz have reported evidence of Sialk III cultural influence; however, the transition from the Late Chalcolithic to the Early Bronze Age in this region remains ambiguous and suggests a possible cultural hiatus. At the same time, several key Early Bronze Age sites have been identified in this area, which are significant for understanding socio-economic systems and settlement patterns. Although eastern Mazandaran Province provides important evidence for the study of 5th- and 4th-millennium BCE settlements, the archaeological record of the 4th millennium BCE in the central and western parts of this region remains very limited. Thus, while the Central Iranian Plateau experienced cultural florescence and extensive interactions during the 4th millennium BCE, a period of stagnation is observed in the northern Alborz regions, especially Gilan. Nevertheless, scattered evidence of emerging cultural developments is visible in other parts of the northern Alborz.

Although eastern Mazandaran contains significant evidence from 5th- and 4th-millennium BCE settlements, archaeological evidence from its central and western areas remains limited, and targeted future research is needed to clarify the reasons for this gap. In eastern Mazandaran, sites such as Komishani, Tarkam, Tepe Sad, and Aštānkrud have yielded pottery related to Sialk III 4–7, dating to before 3400 BCE. The Sialk III culture appears to have entered this region through Damghan during Early Hissar II (3600–3400 BCE). However, scholars such as [Helwing \(2006\)](#) and Thornton ([Thornton et al., 2013](#)) have shown that, in the late 4th millennium BCE, the cultural orientation of Tepe Hissar shifted from contacts with the Central Plateau toward northeastern Iran, the Gorgan Plain, and southern Turkmenistan ([Thornton, 2013](#); [Thornton et al., 2013](#)). The main reason for this shift appears to have been the site's natural position along the Greater Khorasan trade route and the formation of extra-regional connections with important settlements in Central Asia.

The production of Caspian Black-on-Red Ware at Tepe Hissar also supports this shift in cultural orientation on the northern flank of the Alborz, particularly in the Gorgan Plain. The emergence of “Caspian Type Pottery” can be observed at key sites in the Gorgan Plain, including Tureng Tepe, Narges Tepe, and Hosseinabad, which further supports this interpretation. The Gorgan Plain was the center of Caspian Black-on-Red Ware production, and this pottery gradually spread to Challow Tepe in Jajarm, North Khorasan. Absolute dating of Chalcolithic pottery from Challow Tepe places it between 3337 and 3208 BCE ([Vahdati et al., 2019](#)). In the late 4th millennium BCE, the southern and southeastern Caspian Sea region, especially Mazandaran Province, also established cultural interactions with the Gorgan Plain and northeastern Iran. One indicator of this interaction is Caspian Black-on-Red Ware. Since this red pottery with black motifs has been identified in the lower layers of sites such as Gohar Tepe, Ghal e-Kash, and Bozrudpey/Ghal e-Ben Tepe, which are associated with the late 4th millennium BCE in Mazandaran Province, it can be classified as Caspian Type Pottery. This pottery is similar to examples from the Gorgan Plain, including Shah Tepe III–IIb, Tureng Tepe IIA, Tepe Hissar, and the Sumbar cemetery, where it appears in the second half of the 4th millennium BCE ([Olson & Thornton, 2019: 18](#)). In the late 4th millennium BCE, Caspian Black-on-Red Ware gradually merged with the Gray Ware of the Gorgan Plain, indicating the gradual evolution of ceramic traditions in the region. Due to limited excavations, determining the exact time at which this pottery reached Mazandaran remains difficult. Furthermore, there is little evidence for 4th-millennium BCE culture in the central northern Alborz, and the key sites in this region appear primarily from the 3rd millennium BCE onward.

With the end of Sialk III (c. 3400 BCE) and the beginning of Sialk IV (3400–2900 BCE), which corresponds to Early Bronze Age 1 and the Proto-Elamite period, three main cultural spheres coexisted in the Qom, Qazvin, and Isfahan plains. During this period, a fundamental shift occurred in pottery technology and style. Changes in

ceramic forms and production techniques marked the beginning of a new phase of technical and aesthetic innovation. Unlike the previous period, painted forms related to Hissar IIB and IA, along with polychrome wares, emerged, indicating the expansion of cultural exchange networks with adjacent regions ([Majidzadeh, 2010: 51–52](#); [Schmidt, 1937](#)). Key sites such as Qoli Darvish, Maral Tepe, and Arisman, each with local gray, black-incised, and brown ceramic industries, indicate the coexistence and interaction of local and imported cultural traditions ([Helwing, 2011: 196](#); [Sarlak et al., 2013](#)).

Following the collapse of settlements in the Qazvin, Kashan, and Rey-Tehran plains, a period of hiatus (c. 3450–3000 BCE) dominated the region. Evidence such as the reoccupation of Sagzabad around 3000 BCE confirms the reconstruction of social structures in the form of agricultural villages ([Pollard et al., 2012](#); [Fazeli Nashli et al., 2022b: 155](#)). The three main cultural spheres—the Proto-Elamite culture of the southwest, the Kura-Araxes culture of the northwest, and the Gray Ware tradition of the northeast—were integrated as regional subsystems on the Central Plateau. Remains of Uruk pottery and checkerboard geometric motifs suggest the selective adoption of external patterns and their adaptation to local needs ([Fazeli Nashli et al., 2022b: 154](#)). In the Qom Plain, the integration of local culture with the Kura-Araxes tradition around 2700 BCE led to the expansion of new technical and ritual traditions, as evidenced by the combination of motifs and decorative techniques on ceramic vessels from Qoli Darvish ([Sarlak, 2020](#)).

Based on [Tainter's theory \(1988: 193\)](#), the Sialk IV–Arisman–Qoli Darvish societies, when faced with environmental and social stresses, neither completely collapsed nor entered a state of absolute stagnation. Rather, their structures appear to have transformed into smaller and more localized units. This relative stability allowed cultural and social groups to reconstruct their structures through gradual migration and reorganization ([Yoffee, 1988](#); [Janusek, 2005: 177](#)).

Throughout the 3rd millennium BCE, the production of Burnished Gray Ware became common, and a degree of homogeneity emerged between the ceramic industries of Tepe Hissar and the sites of the Gorgan Plain. Evidence indicates that the Gorgan Plain underwent significant developments in ceramic innovation, as well as in cultural and demographic interactions, from the late 4th millennium to the first half of the 2nd millennium BCE. In this context, chronological studies on the northern flank of the Central Alborz, especially in Mazandaran, have been conducted based on ceramic data and analyses of the technological trends and typologies of prehistoric pottery, particularly Bronze Age pottery (see: [Heydari et al., 2018](#); [Safari et al., 2021](#)).

Excavation evidence suggests that while the Central Iranian Plateau experienced cultural and social crises and a decline in settlements during the 3rd millennium BCE, the northern flank of the Central Alborz was culturally connected to the northeastern Iranian sphere, especially the Gorgan Plain. Communities associated with the Gray

Ware tradition inhabited this region, and pottery comparable to that from sites such as Tepe Hissar, Tureng Tepe, Shah Tepe, Yarim Tepe, and other sites in the Gorgan Plain and Neyshabur has been identified in Bronze Age layers at key sites. Furthermore, Kura-Araxes-related pottery has been discovered at Ghal e-Ben, a phenomenon previously reported at Tepe Kalar (Mousavi Kouhpar & Abbas Nejad, 2007). The presence of such pottery indicates that, for the first time, the northern flank of the Central Alborz maintained cultural relations with both its western regions, particularly northwestern Iran, and its eastern regions, including the Gorgan Plain and northeastern Iran. It appears that later, during the 2nd millennium BCE, this region expanded its cultural connections to Central Asia and the Central Iranian Plateau, entering a new era of extra-regional interaction (Fig. 1, Table 1).

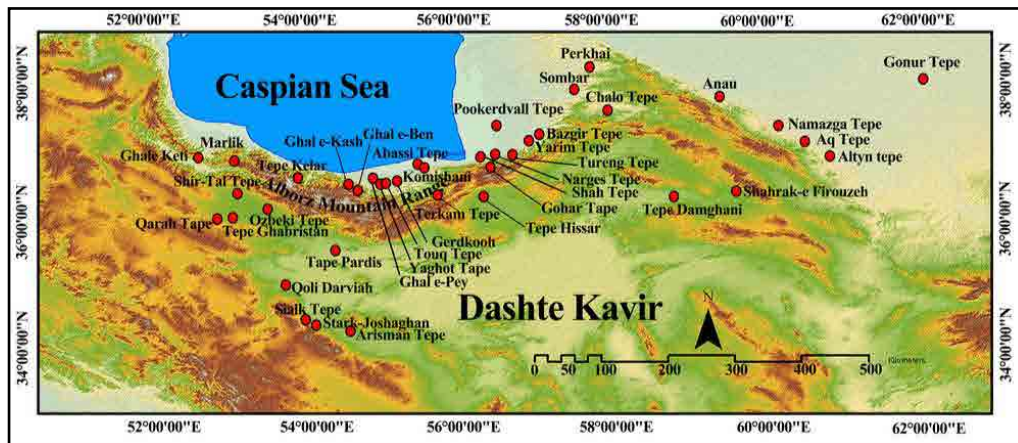


Fig. 1: Map of the location of Bronze Age sites in the northern and southern Alborz zones (Authors, 2025)

Conclusion

The analysis of Bronze Age cultural developments along the Alborz Mountain Range indicates that this region played an intermediary role during the 4th and 3rd millennia BCE among the cultural spheres of northeastern Iran, Central Asia, the Central Iranian Plateau, and northwestern Iran.

On the northern flank of the Alborz, particularly in the Gorgan Plain and eastern Mazandaran, clear evidence of continuous settlement, diverse pottery traditions, and expanding cultural interactions can be observed. The presence of ceramic traditions such as Burnished Gray Ware, Caspian Type pottery, and Kura-Araxes ceramics, along with connections to sites such as Tepe Hissar, Tureng Tepe, Narges Tepe, and Ghal e-Ben, indicates multidirectional regional interactions. At the same time, the production of specific ceramic types such as Black-on-Red Painted Ware, the emergence of new traditions during the Middle and Late Bronze Ages, and the relative stability of settlements in certain areas contributed to the formation of a distinctive regional cultural identity.

In contrast, the southern flank of the Alborz—particularly the plains of Qazvin, Qom, and Tehran—experienced settlement hiatuses, abrupt changes in ceramic technology,

Table 1. Chronology comparing the northern-southern Alborz zone with neighboring areas (Authors, 2025)

Period (BCE)	North Central Plateau	Gilan	Mazandaran			North-East Iran & Gorgan Plain	Southwestern Turkmenistan
			West	Center	East		
Chalcolithic–Bronze Transition (3200–3000 BCE)	-	-	Tepe Kalar	Ghal e-Ben I, Ghal e-Kash	Gohar Tepe, Tepe Abbasi	Hissar IIB, Tureng Tepe I, Shah Tepe III, Yarim Tepe II, Bazgir tepe V, Chalow, Tepe Dāmgānī	-
Early Bronze Age (3000–2500 BCE)	Qoli Darvish, Sialk IV, Arisman, Maral, Ozbaki, Tepe Sofalin, Shoghali, Yusef Khan Khavah, Varzaneh (051-013), Kuopandeh, Shizir, Dowranabad, Shir Tal	-	Tepe Kalar, Astandkroud II	Ghal e-Ben IIA, Ghal e-Kash	Tepe Abbasi, Gohar Tepe, Tepe Sad, Tepe Tarkam, Komishan Cave, Komishani Site, Ghal e-Pey	Hissar IIIA, Tureng Tepe IIA-IIB, Narges Tepe IIIC, Shah Tepe II, Yarim Tepe II, Bazgir IIB, Pokardwal IIA, Chalow, Damghani	Namazga IV, Parkhai II, Aq Tepe, Anau III, Altyn VIII–IV, Khabur Tepe XII–III
Middle Bronze Age (2500–2000 BCE)	Sagzabad, Qoli Darvish, Estark-Joushqan, Shir Tal, Kuopandeh	-	Tepe Kalar, Astandkroud II	Ghal e-Ben IIB, Ghal e-Kash	Gohar Tepe, Tepe Abbasi, Tepe Tarkam, Tepe Sad, Ghal e-Pey	Hissar IIIB, Tureng Tepe IIIB-IIB, Shah Tepe IIB, Yarim III, Narges Tepe IIB, Pokardwal IIB, Chalow, Shahrak-e Firouzeh, Damghani	Namazga V, Parkhai Cemetery, Anau III, Altyn III–I, Gonur Tepe
Late Bronze Age (2000–1500 BCE)	Qabrestan, Sialk A, Sagzabad, Qoli Darvish, Shizir, Qareh Tepe, Estark-Joushqan, Kuopandeh Tepe, Pardis Tepe	Marlik I, Qaleh Kati I, Jamshidabad Cemetery	-	Ghal e-Ben IIC, Ghal e-Kash	Gohar Tepe, Tepe Abbasi, Tepe Tarkam, Tepe Sad, Ghal e-Pey	Hissar IIIC, Narges Tepe IIIA, Shah Tepe IIa2-I, Tureng IIIC1-2, Bazgir IVA, Pokardwal IIC, Chalow, Shahrak-e Firouzeh, Damghani	Namazga VI, Sumbar Cemetery, Parkhai I, Gonur Tepe

and chronological discontinuities associated with environmental and social disruptions. Settlements such as Qoli Darvish, Sialk, and Shizir underwent periods of collapse, integration, or reconstruction, reflecting diverse mechanisms of cultural adaptation and reorganization in response to internal and external pressures.

Based on these observations, the Central Alborz can be interpreted not merely as a geographical zone but as an active cultural arena that played a key role in the transfer of technologies, the development of artistic traditions, and the formation of economic and cultural networks. The cultural diversity of the region, the coexistence of indigenous and external traditions, and the temporal and spatial overlap of archaeological data indicate that the Bronze Age in this region was characterized by a complex system of interaction, adaptation, and innovation rather than a uniform developmental process. Consequently, more detailed investigation of lesser-known sites and the broader application of absolute dating methods will be essential for a more accurate reconstruction of this historical trajectory.

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Author Contribution

The authors contributed equally to this article.

Conflict of Interest

The authors affirm the absence of any conflicts of interest, adhering to publication ethics in citation practices.

Endnote

1. Greater Khorasan Culture: The term “Greater Khorasan Culture” has gained significance in discussions of Bronze Age cultural developments following the excavations of two highly important sites: Shahrak e Firouzeh in Neyshabur (Basafa, 2023a) and Challow in Jajarm (Vahdati & Biscione, 2015). Biscione and Vahdati first proposed this term as an alternative framework for interpreting Late Bronze Age cultural developments, suggesting that it could replace the established designations “Bactria–Margiana” and “Amu Darya” (Basafa, 2023b). The researchers justified this terminology based on the pattern of the culture’s formation, the mechanisms of its expansion and influence, and the cultural homogeneity observed across a vast area of eastern Iran that roughly corresponds to the historical domain later known as Greater Khorasan (see: Biscione & Vahdati, 2020).

2. BMAC Western Boundary: Archaeological surveys of Bronze Age settlements in the Gorgan Plain and regions associated with the Bactria–Margiana Archaeological Complex (BMAC) indicate that, despite cultural and trade connections between these areas, no archaeological evidence has been identified for settlements or cemeteries belonging to the BMAC in the Gorgan Plain. Accordingly, the western expansion of this culture appears not to have extended into the Gorgan Plain. Based on excavation results from North Khorasan, the western boundary of BMAC influence can be considered to correspond approximately with the present day border between North Khorasan and Golestan provinces (Iravani Qadim et al., 2017: 11–12).

3. Cultural Similarities between Hissar IIIC and BMAC: The cultural similarities between the material assemblages of Hissar IIIC and those of the Bactria–Margiana Archaeological Complex (BMAC) include miniature columns, circular marble plaques or discs, marble vessels, chlorite vessels, metal kohl tubes (cosmetic containers), adzes or picks, openwork metal seals, and trumpets (Sarianidi, 1998: 158).

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بررسی تحولات فرهنگی عصرمفرغ در امتداد رشته‌کوه‌های البرز

مجتبی صفری^I، محسن انتظاریان^{II}، سامان سورتیجی^{III}

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چکیده

پایان هزاره چهارم پیش از میلاد، آغاز عصرمفرغ و شهرنشینی و شروع عصر آهن در دو جبهه شمال و جنوب البرز از موضوعات مهم باستان‌شناسی است. پژوهش‌های باستان‌شناسی نشان می‌دهد که با پایان سیلک III بسیاری از استقرارهای دشت‌های مهمی چون قزوین فروپاشیده‌اند و این روند در اوایل هزاره سوم پیش از میلاد در دشت‌هایی مانند کاشان و تهران نیز رخ داده است؛ با این حال، در دشت قزوین از نیمه دوم هزاره سوم پیش از میلاد محوطه‌هایی دوباره ظهور کردند، درحالی‌که در دشت‌هایی مانند تهران، قمرود و کاشان این استقرارگاه‌ها دیرتر مسکون شدند. ازسوی دیگر، تاریخ استقرار در جبهه شمالی البرز طی هزاره چهارم و سوم پیش از میلاد با جبهه جنوبی تفاوت دارد؛ هرچند شواهد اندکی از نفوذ فرهنگ سیلک III در این بخش دیده می‌شود، اما در هزاره سوم پیش از میلاد استقرارگاه‌های مهمی شکل گرفت که بیانگر دو مسیر متفاوت تحول فرهنگی در شمال و جنوب البرز است. این پژوهش با تکیه بر داده‌های باستان‌شناختی حاصل از کاوش‌ها و بررسی‌های میدانی در نواحی شمالی و جنوبی البرز، به تحلیل تحولات فرهنگی عصرمفرغ (هزاره سوم پیش از میلاد) می‌پردازد. در این دوره، شبکه‌های برهم‌کنش فرهنگی، تبادل مواد خام، فناوری و الگوهای سفالگری، ارتباطات میان دشت گرگان، جنوب ترکمنستان، مازندران، شمال شرق ایران و فلات مرکزی را گسترش داد. شواهد محوطه‌هایی چون: تپه حصار، ترنگ‌تپه، قلعه بن، تپه‌کلار و قلی‌درویش نشان‌دهنده گونه‌گونی فرهنگی، هم‌پوشانی سنت‌های سفالگری و گاه‌نگاری متفاوت در این نواحی است. پژوهش تأکید می‌کند که درحالی‌که فلات مرکزی ایران در اواسط هزاره سوم پیش از میلاد با فروپاشی و فترت روبه‌رو بود، جبهه شمالی البرز، به‌ویژه شرق مازندران و دشت گرگان، وارد مرحله‌ای از شکوفایی فرهنگی، پیوندهای منطقه‌ای و شکل‌گیری الگوهای شهری شد. هم‌زمان، در جنوب البرز نیز نشانه‌هایی از مهاجرت، تجزیه ساختارهای پیشاشهری و سازگاری با فشارهای زیست‌محیطی مشاهده می‌شود. این مطالعه نشان می‌دهد که حوزه البرز مرکزی در تبیین فرایندهای انتقال فرهنگی، تنوع منطقه‌ای و شکل‌گیری شبکه‌های بین فرهنگی عصرمفرغ جنوب غرب آسیا نقشی کلیدی داشته است.

کلیدواژگان: عصر مفرغ، شمال و جنوب البرز مرکزی، سفال، شبکه‌های تجاری-فرهنگی، پیوستگی و گسست‌های فرهنگی.

I. گروه باستان‌شناسی، دانشکده میراث فرهنگی، صنایع‌دستی، گردشگری، دانشگاه مازندران، بابلسر، ایران (نویسنده مسئول).

Email: m.safari@umz.ac.ir

II. گروه باستان‌شناسی، دانشکده هنر و معماری، دانشگاه مازندران، بابلسر، ایران.

III. گروه باستان‌شناسی، پژوهشکده باستان‌شناسی، پژوهشگاه میراث فرهنگی و گردشگری، تهران، ایران.

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نشریه پژوهشکده باستان‌شناسی، پژوهشگاه
میراث فرهنگی و گردشگری، تهران، ایران

ناشر: پژوهشگاه میراث فرهنگی و گردشگری

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