

HAKOB SIMONYAN

THE PRIMEVAL ART OF THE ARMENIAN HIGHLAND

(12TH MILLENNIUM - FIRST HALF OF THE 3RD MILLENNIUM BCE)





*THE BOOK IS PUBLISHED
WITH FINANCIAL SUPPORT
OF THE ALL ARMENIAN FOUNDATION
FINANCING ARMENOLOGICAL STUDIES*

HAKOB YERVAND SIMONYAN

**THE PRIMEVAL ART OF THE ARMENIAN
HIGHLANDS**

(12TH MILLENNIUM — FIRST HALF OF THE 3RD MILLENNIUM BCE)

UDC 7.031:902/904(479.25)

*This publication has been reviewed and endorsed
by the Scientific Councils of:*

***The Ministry of Education, Science, Culture and Sports
of the Republic of Armenia:***

State Academy of Fine Arts of Armenia

The Research Center of the Historical and Cultural Heritage

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“The Primeval Art of the Armenian Highlands,” presented to the English-speaking reader, is a revised English version of the monograph published in Armenian by Hakob Yervand Simonyan in 2023, which encompasses the ancient art of the Armenian Highlands from the Mesolithic through the Early Bronze Age inclusive. The monograph incorporates all artistic domains of the highlands that have reached us: cave painting, rock art, works of applied art, architecture, stone and terracotta sculpture, ceramic ornamentation, jewelry art, and more. As a guide, each chapter begins with a historical-cultural overview of the epoch, which makes the artistic domains of the given period and their perception more comprehensible.

It is certain that the region representing a single historical-cultural entity is partially called Eastern Anatolia by most contemporary researchers, and partially South Caucasus. In both cases, political circumstances underlie these designations, since in antiquity this region was not called Eastern Anatolia or South Caucasus. Taking as a foundation the definition of German scholar Hermann Abich, who, proceeding from physico-geographical and climatic conditions, named this region the Armenian Highlands, we have applied the designation he proposed.

Underlying this approach is the circumstance that a series of ancient cultures, such as cave painting, rock art, and various artistic domains of the Pre-Pottery Neolithic, Neolithic, Chalcolithic, and Early Bronze Age, are common to both the so-called Eastern Anatolia and the South Caucasus. Meanwhile, the western regions of Georgia—Colchis, which is included in the South Caucasus—constitute an entirely different cultural area, where civilizations distinct from the cultures of the Armenian Highlands have existed since ancient times. Consequently, it is logical to call the art of our study area the culture of the Armenian Highlands, whose northern boundary is the Kura River and southern boundary is the Armenian Taurus mountain range.

Synthesizing more than ten thousand years of cultures in this region into a single unified book was a challenging yet important mission. Currently, Armenians, Georgians, Azerbaijanis, Turks, Persians, Kurds, and other peoples live in this physico-geographical environment, each of whom considers the ancient culture and art of the Armenian Highlands to be the heritage of their ancestors. Therefore, this monograph should have a wide readership interested in studying and preserving the ancient art of the Armenian Highlands, which has its unique and important role in world heritage.

ISBN 978-9939-9087-5-5

DOI: 10.55610/978-9939-9087-5-5

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Publisher Information:
The Ministry of Education, Science, Culture and Sports
of the Republic of Armenia
State Academy of Fine Arts of Armenia
The Research Center of the Historical and Cultural Heritage

HAKOB YERVAND SIMONYAN

THE PRIMEVAL ART OF THE ARMENIAN HIGHLANDS

**PREHISTORIC VISUAL CULTURE
AND SYMBOLIC EXPRESSION
FROM THE TERMINAL PLEISTOCENE
THROUGH THE EARLY BRONZE AGE**

(12th Millennium – First Half of the 3rd Millennium BCE)

**«HUSHARDZAN» PUBLISHING HOUSE
YEREVAN 2025**

*This work is dedicated
to the loving memory of my parents,
Yervand Khachatur Simonyan
and **Flora Karapet Harutyunyan***

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FOREWORD

*H*akob Yervand Simonyan's *The Primeval Art of the Armenian Highlands* represents a monumental achievement in interdisciplinary scholarship, demanding mastery across diverse fields—from art history and archaeological theory to Ancient Near Eastern studies, ethnography, cultural anthropology, prehistoric philosophy, mythology, and ritual studies. The work demonstrates exceptional skill in synthesizing primary sources across these disciplines and interpreting them through rigorous critical methodologies.

The foundation of this monograph rests upon archaeological evidence obtained through systematic excavations and field research. This constitutes the fundamental matrix upon which the entire study is constructed. As an accomplished field archaeologist, the author commands extraordinary expertise over this vast corpus of material culture. Furthermore, Professor Simonyan has taught “Prehistoric Art of Armenia” at the Department of Art Theory and History at the State Academy of Fine Arts of Armenia for over three decades. His comprehensive understanding of architectural traditions has been profoundly enriched by nearly forty years of professional engagement in monument preservation and heritage studies, providing intimate familiarity with virtually every archaeological site and architectural monument across Armenia, from major complexes to remote sanctuaries.

To address the multifaceted questions central to this study, the author has conducted extensive fieldwork at numerous sites throughout Armenia and the broader region, undertaking first-hand examination of collections in museums across the United States, Europe, Russia, Georgia, Iran, Egypt, and beyond. This monograph emerges from his comprehensive command of primary sources, decades of archaeological and art-historical research, and his capacity to synthesize methodologies and evidence from multiple disciplines while contextualizing them within Ancient Near Eastern cultural frameworks.

Among the author's primary methodological challenges was identifying and isolating, within the immense archaeological record, specific spheres, phenomena, and individual artifacts possessing genuine artistic merit and thus belonging to the domain of art

history proper. This required mastery of the ten-millennia-long archaeological sequence of both the Armenian Highlands and the broader Ancient Near Eastern cultural sphere (12th–3rd millennia BCE)—a heritage now dispersed across museums in Europe, North America, and Western Asia, documented in publications across multiple languages. The author has synthesized this material by abstracting and isolating components of authentic artistic significance—the creative achievements of prehistoric communities and early master craftspeople—and classifying them for rigorous art-historical analysis. This complex undertaking has been accomplished according to the highest standards of contemporary scholarship.

It is widely acknowledged that comprehensive studies of Armenian art have predominantly focused on the Christian period. Meanwhile, Armenia’s prehistoric artistic heritage—neglected mainly in our own scholarship—has increasingly become subject to appropriation attempts by neighboring cultures with no legitimate historical connection to this patrimony. This volume examines the primeval art of the Armenian Highlands across all its manifestations—a vast domain of inquiry, one might say virgin scholarly territory, being systematically cultivated for the first time. This first volume encompasses all surviving spheres of artistic expression from the Mesolithic, Neolithic, Chalcolithic, and Early Bronze Age periods.

The author confronted a fundamental methodological choice: whether to immerse the study in a detailed critical analysis of contentious scholarly debates or to prioritize comprehensive coverage of all branches of prehistoric art. Remarkably, he has succeeded in addressing both imperatives. His work encompasses virtually all phenomena of prehistoric art currently known from the Armenian Highlands, while

simultaneously engaging in substantive scholarly discourse with established—and often controversial—interpretations in the field. The author advances fresh and intellectually courageous perspectives, reflecting decades of sustained research—truly a lifetime’s scholarly achievement.

The monograph is composed with crystalline clarity and logical coherence, employing sophisticated art-historical terminology throughout. In specific instances, the author introduces art-historical concepts previously absent from Armenian scholarly discourse—terms of considerable significance for our field’s conceptual and linguistic development. The art-historical analyses address creative traditions spanning millennia, examining period-specific aesthetic solutions—the evolution from rigid, schematic representation to stylized linear forms; symbolic expressiveness; early concepts of perspective; and the use of polychrome techniques to enhance the expressive power of prehistoric artworks.

The study also investigates utilitarian and applied arts, wherein symbolic cognition generated ornamental motifs imbued with aesthetic, sensory-emotional, apotropaic, and ritual-magical significance—featuring rhythmic linear patterns, spatial and perspectival concepts, and representations ranging from hieratic stasis to dynamic movement.

The volume’s architecture is equally methodical. To enhance comprehension, the author contextualizes each chronological period within its historical and cultural milieu. Upon this foundation, the artistic domains become more vivid and accessible, as art is demonstrated to have emerged from within the historical-cultural matrix that generated and sustained it—shaped by contemporary philosophical frameworks, mythological systems, mystical symbolism, and ritual conceptualizations.

Certain aspects of the monograph are further substantiated through technical and scientific methodologies. These interdisciplinary approaches significantly enhance the work's scholarly credibility and value. The author's extensive experience across various scientific disciplines has enabled him to produce this comprehensive synthesis devoted to the primeval art of the Armenian Highlands.

Beyond critical engagement with previous art-historical scholarship, the monograph's core contribution lies in analyzing previously unexamined domains within art-historical frameworks. Particular significance attaches to the author's analysis of prehistoric masterworks discovered during his own excavations and field research, notably at Shengavit, Akhtamir, Gorayk, Gndevaz, Sartse Mountain, and other key sites.

The work comprises an introduction, five chapters, a bibliography, and an extensive appendix featuring color illustrations pertinent to the subject matter—including photographs, maps, architectural plans, and technical drawings. These visual materials substantially reinforce the author's analytical observations and interpretations.

The monograph's first chapter examines the art of the Mesolithic period. The opening section addresses the planetary geological and climatic transformations that shaped the flora and fauna of the period under investigation, establishing the geographical environment in which prehistoric populations lived, labored, and created the earliest artistic expressions.

The second section of Chapter One analyzes the limited corpus of parietal art preserved in cave contexts, whose depicted concepts—particularly the representation of deities upon symbolic animals or zoomorphic divine manifestations—

subsequently achieved widespread dissemination throughout the Ancient Near Eastern cultural sphere.

The third section of Chapter One is distinguished by its comprehensive art-historical analysis of rock art traditions. This section illuminates the cognitive and spiritual dimensions of prehistoric communities—their emotional, mythological, and ritual-magical conceptual frameworks—alongside representations of quotidian life and environmental interactions. This constitutes arguably the first systematic art-historical examination of rock art in the Armenian Highlands, presented with compelling originality, supported by rigorous argumentation, and guided by principles of aesthetic synthesis applied to an extensive archaeological corpus. The analysis advances several novel observations and significant scholarly conclusions.

The fourth section of Chapter One investigates what the author designates as the Portasar cultural complex, documenting monumental architectural constructions, remarkable sculptural programs, and sophisticated engraved iconography created during a chronological horizon once considered implausibly ancient. With scholarly precision, the author acknowledges that Göbekli Tepe (Portasar) occupies a liminal zone of the Armenian Highlands; however, as distribution maps compiled by Harold Hauptmann demonstrate, numerous related sites of this cultural tradition extend into the Armenian Highland proper—specifically within the region bounded by the Euphrates River and Lake Van.

Chapter Two is devoted to Neolithic art in the Armenian Highlands. The first section of Chapter Two examines the so-called “Neolithic Revolution,” a concept introduced into scholarly discourse by Gordon Childe, and Armenia's participation in this global transformative

process, as substantiated by archaeological evidence. Analyzing a unique example from Armenian folklore—which recounts how “the world became filled with bread thanks to the dog”—the author, through remarkably subtle and insightful interpretation, demonstrates that the Armenian Highlands constituted one of the primary cradles of early agricultural civilization.

The second section of Chapter Two examines the emergence of decorative and applied arts during the 8th to 4th millennia BCE, focusing particularly on the ornamental repertoires developed in newly established pottery traditions.

The third section of Chapter Two investigates the architectural characteristics of structures from this period, along with the fundamental principles governing dwelling construction.

Chapter Three is dedicated to the Chalcolithic art of the Armenian Highlands, encompassing the chronological span from the second half of the 6th millennium to the first half of the 4th millennium BCE. Art-historical analysis is applied to ceramic ornamentation, terracotta, and stone plastic arts, including figurines executed in a volumetric-spatial style. The fourth section examines the architectural compositions documented from this period.

Chapter Four, titled “Art of the Shengavit Culture: Early Bronze Age (3,500–2,400 BCE)” presents an original analysis of the genesis of goldsmithing in the Armenian Highlands and architectural developments during the Early Bronze Age. It offers distinctive methodological approaches that constitute innovative contributions to the study of Armenian architectural history.

The section devoted to ceramic ornamentation systematizes the developmental trajectory of this ancient artistic tradition across approximately one millennium, revealing chronological

particularities, the architectonics of ceramic vessels, proportional systems, and the harmonious chromatic opposition between burnished black surfaces and red-slipped backgrounds. The analysis addresses issues of polychrome decoration in Early Bronze Age pottery and offers novel interpretations of the polychrome iconography discovered at Shengavit. This chapter presents, for the first time, comprehensive documentation of monumental sculpture from the Armenian Highlands. Previously proposed interpretations of the semantics of ornamental motifs and iconographic imagery are subjected to critical analysis, with bold, original, and persuasive new readings advanced.

In this multifaceted and comprehensive monograph, particular significance attaches to the chapters examining rock art, small-scale plastic arts, ceramic ornamentation, architecture, and goldsmithing. Of special value are the contextual discussions situating specific branches of Armenian Highland art within the broader framework of Ancient Near Eastern civilizations.

The monograph addresses a significant lacuna in the study of prehistoric art history and represents a substantial contribution to the field of ancient Armenian art. As the first comprehensive synthesis devoted to this subject, it naturally contains certain limitations and areas where particular branches receive less exhaustive treatment.

Hakob Yervand Simonyan’s volume represents a significant and essential achievement in art-historical scholarship, holding considerable importance not only for art history but also for the advancement of Armenian studies as a whole.

Vigen Hovhannes Ghazaryan

*Corresponding Member, National Academy of
Sciences of the Republic of Armenia
Doctor of Art History, Professor*

INTRODUCTION

During the Lower Paleolithic period, in the process of tool manufacture, humans developed embryonic concepts of form and symmetry. This explains the presence of typologically distinct forms characteristic of Lower Paleolithic stone tool assemblages—forms that, while serving as precursors to art, nevertheless did not evolve into aesthetic consciousness. It is therefore not coincidental that no examples of artistic creation, even the most archaic, have been documented from the Lower Paleolithic period in any region of the world (*История искусства народов СССР - History of Art of the Peoples of the USSR*, Vol. 1, 1971: 7).

It is axiomatic that all phenomena occur within space and time. The Armenian Highland, or Armenian Plateau, constitutes an elevated, coherent geographical region in Western Asia, positioned between the Mesopotamian lowlands, the Iranian and Anatolian plateaus, the Caucasus Mountains, and the Caspian and Black Seas. Dissected by numerous mountain ranges and enriched with fertile plains and high plateaus, the Armenian Highland encompasses approximately 400,000 square kilometers. Its central region, known as the Central Highland or Armenian Volcanic Plateau, contains the pivotal centers of Armenian history and culture—the provinces of Ayrarat, Vaspurakan, and Taron-Turuberan. The Highland proper consists of undulating, folded mountain chains, massive volcanic plateaus, and river valleys that collectively form a distinctive system of vertical zonation (Zograbyan 1979: 5-21; Gabrielyan 2000; Vehuni 2001).

Environmental and climatic conditions have profoundly influenced the imagination, spiritual and cultural life, and socio-economic and political history of Armenia's inhabitants. Within this bioclimatic environment, our ancestors lived and created, developing our people's worldviews, mythological and philosophical concepts regarding cosmic structure, the interrelationship between harmony and chaos, the interconnection of good and evil, religious-moral perceptions, and the proto-epic foundations—the embodiment of enigmatic

narratives in rock art. The extreme diversity of natural conditions has served as a prerequisite for the multifaceted manifestations of Armenian culture and art, which, despite their formal variety, constitute a unified whole.

The emotional impact of art upon human consciousness becomes more comprehensible when examined and interpreted within the historical-cultural context from which various artistic traditions emerged and developed. We must also consider that temporal factors have exerted direct influence upon artistic formation, predetermining developmental trajectories in art. Consequently, chronology holds paramount importance for the perception, revelation, and evaluation of ancient art. Each artwork relates to its predecessors through emulation, influence, or reaction. Art must be examined within its specific historical milieu, from which derive the perceptions, objectives, and aspirations of creative masters. One cannot adopt simplistic approaches suggesting that artistic development proceeds through uninterrupted linear progression. Naturally, every creator strives to establish superiority over predecessors. Representatives of new generations are internally convinced they have significantly surpassed previously created values. Understanding their psychology requires considering the euphoria of triumph each creator experiences upon completing a new work. However, every advance and victory may become a defeat if subjective perceptions of improvement fail to reflect genuine enhancement of artistic quality. The finest master is one who can develop the admirable and respected creations of predecessors. This perhaps explains Egyptian art's approximately three-millennia continuity, which preserved its fundamental iconographic principles. For this reason, what was valued as beautiful and admirable during pyramid construction has continued to be appreciated by successive generations to the present (Gombrich 1998: 2).

Reflecting the comprehensive and continuous nature of Armenian primeval art spanning the 12th to 3rd millennia BCE, this monograph has been structured according to successive historical periods, each subdivided into sections examining various artistic domains. This thematic presentation enables us to demonstrate art's developmental trajectory in all its richness and fluctuations.

Over millennia, numerous distinctive yet complementary artistic traditions emerged and evolved within the Armenian Highlands. Despite their significance, scholarly articles and comprehensive studies on these ancient artistic origins remain remarkably scarce. The present monograph addresses this lacuna.

Each chapter opens with concise historical and cultural overviews, delineating the socio-economic and political contexts within which the principal artistic traditions of ancient Armenia developed. This approach derives from Erwin Panofsky's fundamental thesis that comprehending artistic imagery requires first understanding the comprehensive essence of its originating culture (Panofsky 1962: 7).

Built upon this methodological foundation, the monograph examines virtually all prominent domains of ancient Armenian art and their developmental patterns. Meaningful discourse about art requires situating it within comprehensive cultural frameworks. Understanding ancient art further necessitates interdisciplinary humanities analysis, particularly incorporating archaeological discoveries that enrich our field. This becomes increasingly significant through expanding applications of scientific methodologies—for dating artifacts, employing new technologies, and identifying long-distance exchange of raw materials and finished products, including artworks.

The ancient art of the Armenian Highlands developed within the broader Ancient Near Eastern cultural sphere, where significantly differentiated cultures coexisted. Ethnic consciousness and social philosophy are reflected in ancient artistic creations, accounting for each culture's distinctiveness and autonomy. These contemporaneous cultures, while maintaining their individuality, engaged in mutual interaction, influence, and enrichment.

The Armenian Highlands constitute the ancestral homeland of the Armenian people. Since primeval times, within this mountainous region—diverse yet forming an indivisible historical-geographical unity—our ancestors lived, created, and produced enduring artistic values across millennia. Encompassing vast temporal and spatial dimensions, and integrating all artistic branches (visual arts, applied arts, architecture) into a single comprehensive work, undertaken here for the first time, proved inherently complex and

demanding. Without a precedent of a comprehensive work on Armenian art, we initially selected artworks and domains, then collected scattered materials published in various languages and qualities, classified primary sources, and applied Armenian-rooted terminology for ancient art vocabulary. We adopted critical approaches toward circulating, often contradictory viewpoints, seeking reconciliation to present all significant artworks and themes spanning approximately ten millennia (12th–3rd millennia BCE) within a unified framework. Notably, ossified viewpoints demonstrate surprising persistence. However, accumulated primary sources necessitate reinterpretation.

Presenting this extensive material within a single comprehensive monograph required addressing several challenges: A) Examining numerous primary sources to extract art-related information; B) In certain instances, relying solely on direct observations, as some ancient art themes lack published scholarly studies or established viewpoints; C) Engaging in discourse on contentious issues requiring reassessment through recent discoveries.

Within feasible parameters, we have addressed all issues, presenting the narrative so that raised questions become comprehensible as interconnected links in the golden chain of ancient Armenian art.

Below we present the fundamental theses advanced and examined within this monograph in the fields of Armenian art history and, more broadly, Armenian studies:

IN THE DOMAIN OF VISUAL ARTS:

- a) The corpus of parietal art monuments in the Armenian Highlands has been comprehensively documented;
- b) We have classified the rock art of the Armenian Highlands according to unified principles, rendering the seemingly unmanageable vast corpus of primary sources comprehensible. Several new semantic interpretations have been advanced;
- c) Ornamental art constitutes an autonomous artistic domain, reproducing both real and imaginary worlds through zoomorphic and anthropomorphic forms, geometric patterns, and vegetal symbols. Ornamental traditions originated in the

Paleolithic period as art's most widespread and accessible medium. Geometric and vegetal compositions comprise both individual elements and their simple or complex combinations. By organizing visible surfaces, these reveal, emphasize, and accentuate objects' architectonic qualities. From this perspective, we have examined ornamental drawings and relief carvings preserved on stone, metal, ceramic, and other substrates throughout the approximately ten-millennia span under investigation in the Armenian Highlands;

d) Art-historical analysis has been applied to Early Bronze Age goldsmithing in Armenia, synthesizing discoveries in gold, silver, and semi-precious stones. The iconography of Shengavit pendant-amulets has been reinterpreted as reproductions of primeval mythology through geometric symbolism;

e) The existence of proto-urban settlements in Early Bronze Age Armenia has been examined. For this purpose, we have defined the essential characteristics of the "early city" concept. Through comprehensive analysis of recent excavation data and previously documented evidence, we have identified features that correlate with the definitional criteria characteristic of Ancient Near Eastern urban centers. Through this methodological approach, particularly exemplified by the Shengavit settlement, we conclude that during the first half of the 3rd millennium BCE, Armenian settlements exhibited virtually all attributes characteristic of early urban centers:

1. Monumental architecture
2. Specialized craftsmen's quarters
3. Temple structures for religious ceremonies
4. Advanced defensive systems—fortified walls reinforced with buttresses, secret passages
5. Placement of unworked, massive stones at the corners of the temple and cult structures

This principle was subsequently adopted in Hebrew temple architectural canon and recorded in Biblical texts (Old Testament: Exodus 20:23-25; Joshua 8:30-31).

Each historical epoch bears distinctive characteristics that fundamentally shape artistic expression: patterns of subsistence, worldviews, mythological systems, aesthetic sensibilities,

and cultural conventions. These elements collectively direct and constrain the trajectory of artistic development within their specific temporal contexts. Any attempt to analyze artistic works in isolation from their generative historical matrix inevitably diminishes their significance and yields fundamental misinterpretations. Therefore, the precise chronological attribution of both broader artistic traditions and individual artifacts—coupled with rigorous critical evaluation of existing scholarly interpretations—constitutes an essential methodological imperative.

The chronological parameters of this monograph encompass radically disparate stages of societal evolution: from appropriative subsistence strategies through the emergence of productive economies, spanning the formative periods of complex societies and incipient state formations. Each historical phase manifests distinctive artistic traditions, characterized by specific formal properties and underlying organizational principles¹.

The corpus of ancient artistic production has been recovered primarily through systematic archaeological investigation. Consequently, a comprehensive command of the extensive archaeological literature and primary documentary sources constitutes an indispensable prerequisite for the present undertaking.

The cultural patrimony examined herein remains unknown, not only to the general public but also within certain scholarly circles. The imperative driving this comprehensive study emerges not solely from art-historical and Armenological considerations, but equally from pedagogical and ideological necessities—namely, the formation of a coherent and complete understanding of our indigenous cultural heritage. It is well established that existing synthetic treatments of Armenian art have concentrated predominantly on the Christian period. Meanwhile, the epoch distinguished by the austere grandeur of ancient Armenian art—having suffered scholarly neglect—has become vulnerable to appropriation by neighboring peoples with no legitimate historical connection to this heritage.

Prehistoric art constituted an integral dimension of human praxis—a syncretic phenomenon that organically encompassed all spheres of spiritual life in antiquity. Its defining characteristics include the creation of both naturalistic

¹ Certain ranches of art, such as rock carvings, vishap stelae, and others, persisted across several chronological periods. Their presentation within particular chapters does not imply their absence in other periods.

and imaginative forms, including mythological figures; the codification and reproduction of artistic types and archetypal characters; and the systematic generalization and abstraction of phenomenological experience.

Through processes of historical differentiation, art gradually achieved relative autonomy. The syncretic, all-encompassing artistic expression characteristic of prehistory progressively differentiated into discrete disciplinary traditions. Nevertheless, traditional art continued to function as a medium for the articulation of social phenomena and relationships. Ancient sculptors, painters, metalworkers, and other artisans were necessarily constrained to reproduce those fundamental figures, typologies, decorative programs, and narrative structures that their societies required of them.

This work aims to provide a systematic investigation of the prehistoric art of the Armenian Highlands. To facilitate a comprehensive understanding of this subject, we also examine the physical-geographical setting, historical circumstances, material culture of the region, as well as the mythological, religious, and broader spiritual contexts that provided the substrate for the emergence of syncretic art.

The conception for this presentation of ancient Armenian Highland art evolved through nearly three decades of instruction at the State Academy of Fine Arts of Armenia, where pedagogical necessity demanded guidance through a dispersed and fragmented scholarly literature replete with divergent and often contradictory interpretations.

Art maintains profound interconnections with both material and spiritual culture, mythological systems, oral traditions, mortuary practices, and religious conceptualizations. The excavation of these ancient, preliterate strata becomes possible through archaeological research. Consequently, the study of ancient art remains fundamentally dependent upon archaeological advancement, the development of archaeological archives, and the rigorous application of archaeological methodologies (Semenov 2008: 6-7).

Certain artistic traditions, notably petroglyphs and vishapakars (dragon stones), persisted across multiple chronological horizons. Their treatment within specific chapters should not be construed as indicating their absence from other temporal contexts.

The remarkable archaeological discoveries made in the Armenian Highlands over recent decades have substantially enriched the documentary corpus of ancient Armenian art, culture, and history, providing a solid foundation for reassessing obsolete theoretical frameworks.

The first attempt to construct a narrative of ancient Armenian cultural and artistic history based on archaeological sources was undertaken by Khachik Samuelyan. Acknowledging both the significance of his endeavor and the complexity of the issues addressed, he states in his preface: "...We do not regard this work as a comprehensive history of ancient Armenian culture. That task still awaits its author. Rather, we offer the reader historical outlines intended to raise and illuminate a series of problems relating to Armenia's cultural development" (Samuelyan 1931: 3).

As previously noted, no comprehensive synthesis addressing the entirety of ancient Armenian art has yet been produced. Nevertheless, discrete domains—including Armenia's rock art, architecture, and specific branches of applied arts such as small-scale sculpture and ceramic ornamentation—have been examined in the works of Toros Toramanian, Ashkharbek Kalantar, Nikoghayos Marr, Harutyun Martirosyan, Sandro Sardaryan, Pavel Safyan, Hasmik Israelyan, Grigor Karakhanyan, Stepan Esayan, Grigor Areshyan, Pavel Avetisyan, Ara Demirkhanyan, Karen Tokhatyan, and the present author, among others.

Ancient Armenian architecture is systematically presented in the first volume of the four-volume compendium published by the Institute of Arts of the National Academy of Sciences of Armenia (*History of Armenian Architecture* 1996: 19-86). Also of considerable value is *The History of Armenian Art*, co-authored by Ararat Aghasyan, Hravard Hakobyan, Murad Hasratyan, and Vigen Ghazaryan, whose first chapter briefly examines Armenia's ancient art from its origins through the tenth century BCE (Aghasyan et al. 2009: 13-22).

Within the ongoing excavation of ancient architecture and sculpture in the Armenian Highlands, the investigations initiated in the 1990s by German archaeologist Klaus Schmidt stand as exceptional achievements. These pertain to the cultic structures of Portasar (Göbekli Tepe), established approximately 12,000 years ago during the Pre-Pottery

Neolithic period (Schmidt 2010: 239-256). Analogous temple complexes have been excavated at Nevali Çori, partially investigated before reservoir construction on the Euphrates tributary (Frangipane 1993: 37-69). Beyond these pivotal monuments located in the borderlands of the Armenian Highlands, similar structures have been discovered within Armenia proper—in the interfluvial region between the Euphrates and the Tigris rivers.

A comprehensive understanding of ancient Armenian art emerges not through isolated presentation, but rather through its contextualization within the broader historical and cultural matrix of the Ancient Near East—through comparative analysis with neighboring peoples and ancient civilizations. This methodological approach enables a more nuanced interpretation of the Armenian Highland’s artistic heritage².

Acknowledging the profound interconnections between the Armenian Highland’s and Ancient Near Eastern civilizations, we have systematically compared ancient Armenian art with the region’s preeminent cultural centers—namely Sumer, Akkad, Babylon, Assyria, Elam, the Hittite sphere, the Levant, the Iranian Plateau, and the ancient cultures of the North and South Caucasus. We have addressed questions concerning the genesis and interrelationships of specific artistic domains. Through these comparative analyses, we may conclude that Armenian Highland art of the Bronze Age—in marked contrast to the monstrous and mythological imagery prevalent in ancient Egyptian, Mesopotamian, and Elamite traditions—is distinguished by its vibrant realism.

Primitive art is fundamentally characterized by symbolism, which enabled the communication of complex themes and phenomena through conventionalized imagery. Symbolic cognition contributed to the development of abstract concepts and categorical thinking. A symbol functions as a cipher or code—a form of encoded information created primarily as a communicative medium, intended to transmit spiritual values through unified visual forms. Each symbol is enveloped in layers of ritual significance, containing encrypted meaning. To decipher ornamental design and interpret its symbolism—often yielding multiple plausible readings—is to unveil the meanings concealed within the image.

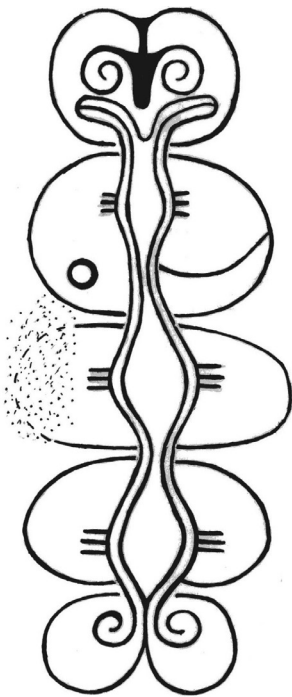
² Several prominent scholars accept a model for the ancient civilization formed in the Ancient Near East, according to which it consisted of a center—Egypt, Mesopotamia, and the neighboring countries that were at nearly the same level of development, namely Syria, Palestine, the Armenian Highlands (often referred to, for political reasons, as Eastern Anatolia), Asia Minor, and Iran—and a periphery, comprising the Caucasus, the Aegean world, and Central Asia. Although the latter regions had attained a fairly high level of development, they nonetheless functioned more as importers rather than creators of advanced ideas (see *Istoriya Drevnego Vostoka*, Part I, 1983: 34, 37).



CHAPTER 1

THE ART OF THE MESOLITHIC (PRE-POTTERY NEOLITHIC A) PERIOD

(11,500 – 8,500 BCE)



1.1 THE ARMENIAN HIGHLANDS DURING THE MESOLITHIC (PRE-POTTERY NEOLITHIC A) PERIOD: A HISTORICAL-CULTURAL OVERVIEW

Material and spiritual culture—and consequently art—emerged as products of human activity. The earliest working implements, preserved predominantly as lithic artifacts, provide the foundation for designating humanity's initial epoch as the Stone Age. Remarkably, this terminology has circulated since classical antiquity. The Roman poet-philosopher Titus Lucretius Carus (98–55 BCE), in his celebrated treatise *De Rerum Natura*, accorded tools fundamental significance in shaping human history. Based on the raw materials from which implements were fashioned, he subdivided human history into three epochs: Stone, Bronze, and Iron Ages (Lucretius 1983).

The Stone Age itself comprises multiple chronological phases. The term *Mesolithic*—Middle Stone Age—was introduced into scholarly discourse by Allen Brown in 1893. It achieved widespread acceptance among European researchers and continues in productive use today (Mesolit SSSR 1989: 5). The term denotes the geological period marking the termination of the final glacial phase—the Würm glaciation—and the establishment of contemporary geographical and climatic conditions across the globe. It is precisely from this period that the earliest artistic works in the Armenian Highlands are documented.

Approximately 15,000 to 12,000 years ago, dramatic temperature increases terminated the frigid Würm period. Glaciers underwent rapid ablation. Immense volumes of water, liberated from ice sheets, surged as colossal rivers toward the world's oceans, carving massive gorges that would

become modern riverbeds. Consequent to glacial melting, global sea levels rose substantially, and continents acquired their contemporary configurations. These powerful geological processes submerged the land bridges connecting continents while simultaneously exposing vast territories previously locked beneath ice.

The Armenian Highland plateau maintains an average elevation of 1,500-1,800 meters above sea level. During the Würm period, glaciers mantled the slopes and plateaus of mountains exceeding 2,000 meters in elevation. The Pleistocene climate proved harsh and inhospitable for human habitation, accounting for the paucity of Upper Paleolithic sites throughout the Armenian Highlands ((Lyubin & Belyaeva 2013: 16-17). During the Holocene, glaciers gradually retreated to mountain summits before virtually disappearing, persisting only as isolated remnants atop Greater Ararat and Mount Aragats.

The Mesolithic witnessed fundamental transformations in flora and fauna. The ponderous megafauna of earlier periods yielded to modern species—swift, vigilant creatures whose capture demanded fundamentally different hunting strategies. Successful procurement now depended on projectile technologies that enable strikes from a distance. Humanity achieved one of its paramount innovations: the bow and arrow, a weapon system that allows for the neutralization of predators and the procurement of game from secure distances. This invention conferred protection and security, enabling humans to recognize their superiority over both predators and prey. This technological revolution precipitated an ideological transformation manifested in artistic expression. In contrast to the static representations of the Pleistocene—predominantly zoomorphic in theme—Mesolithic art witnessed the ascendance of anthropomorphic imagery. Representations diminished in scale while gaining dynamic qualities. The small, mobile hunting bands of the Late Magdalenian, abandoning the tradition of monumental cave art, embraced portable and miniature artistic forms.

1.2 CAVE PAINTING IN THE ARMENIAN HIGHLANDS³

During the Mesolithic period, when art first emerged in the Armenian Highlands, stone surfaces served as a distinctive “canvas” for early artistic expression. Ancient artists utilized the naturally smooth surfaces of cave walls to depict figures of deities, humans, animals, and celestial bodies, using reddish-brown and red pigments. All cave paintings were executed with natural colorants—primarily reddish ochre and various shades of tuff—which, through temporal processes of fading and accumulation of soot and patina layers, have acquired black or brownish tonalities.

THE CAVE PAINTINGS OF KHOSROV RESERVE

Among the cultural monuments of the Republic of Armenia, the cave paintings of Khosrov Reserve represent the earliest documented artistic heritage, according to current archaeological evidence. Within a natural cave (depth: 13.5 m, entrance width: 10 m, height: 6 m), the naturally smooth surfaces of the western and northern walls bear 166 figures rendered in reddish, cinnamon, and black pigments—164 anthropomorphic and two zoomorphic representations (Arakelyan 1982: 47-54).

These cave art specimens, discovered by speleologists in 1979, are located 26-27 kilometers east of Garni village, on the right bank of the Darband tributary of the Azat River. The site occupies a narrow, inaccessible gorge in the Geghama Mountains, considerably removed from settlements and roads, in terrain unsuitable for human habitation. A spring emerges from the cliff adjacent to the cave—a phenomenon perceived since ancient times as supernatural, extraordinary, and worthy of veneration. The presence of cave art in this secluded natural sanctuary, combined with the spring issuing from the rock face, suggests the area held sacred significance in prehistory and served ritual purposes, possibly for initiation ceremonies.

The central composition, measuring 3.3×1 meters, comprises five registers depicting nude human figures ranging from

³ For a long time, the prevailing view was that, after the glacial period, cave painting ceased to be practiced (see Semenov 2008: 11–13).

4 to 35 centimeters in height. Figure dimensions were constrained by the width of the rock's natural stratified surfaces. Executed in reddish ochre—now darkened to cinnamon through temporal processes—the images portray graceful, elongated human forms with attenuated, curved torsos, narrow waists, broad hips, rounded buttocks, and accentuated thighs. The human figures lack explicit sexual characteristics, though figures with more rounded and delicate pelvic regions may represent females.

All figures display elongated, melon-shaped cranial forms. Whether this stylistic convention was deliberate—emphasizing characteristics derived from period cultic conceptions—or represents naturalistic depictions of artificial cranial deformation practices or racial characteristics remains undetermined.

The human figures, varying in scale and stylization, are rendered in profile, facing left, positioned in close proximity, captured in a rhythmic procession likely of ritual character. Limited by the narrow rock ledges serving as “canvas,” the figures are small and highly stylized: bodies are rendered schematically with T-shaped linear contours, while heads appear as circular forms. Despite generalized treatment, limited formal vocabulary, and a primitive stylistic approach, these images convey the vital presence of prehistoric humanity. Here, restrained visual realism combines with schematism and the decorative-conventional character of the composition.

On the wall opposite the cave entrance appears a seated human figure (height: 40 cm). Adjacent polychrome animal representations in red and black pigments (30 × 20 cm) survive in poor condition. These zoomorphic images, distinguished by markedly different stylistic characteristics, undoubtedly represent later additions.

Based on the stylistic features of the anthropomorphic depictions—linear solutions, schematism, small scale, uniformity—and the primitive character of lithic tools recovered from cave sediments, Babken Arakelyan dated these paintings to the Neolithic period (Arakelyan 1982: 52-53). However, we propose that the primary group of Khosrov Reserve cave

paintings date to the Mesolithic or Early Neolithic period (12th-10th millennium BCE)⁴.

THE CAVE PAINTINGS OF VAN PROVINCE

Another assemblage of cave paintings has been discovered in Van Province, located 76 kilometers southeast of Van city at an elevation of 2,500 meters above sea level, east of But village (now Yedisaklim). Here extends a gorge approximately 9 kilometers long and 150 meters deep, whose vertical cliff contains dozens of caves. In four of these caves, positioned 20-80 meters above the gorge floor, more than 150 images are preserved, depicting goddesses and deities standing upon animals, solar symbols, deer, ibex, and other ungulates. The majority of these representations have suffered severe deterioration through weathering, nearly vanishing through fading, or becoming obscured beneath thick accumulations of soot.

The images, executed in red and cinnamon pigments, are rudimentary in execution and possess limited aesthetic sophistication. On the walls of a cave situated 75 meters above the gorge floor—designated the “Cave of the Maidens” (*Kızların Mağarası*)—appear depictions of “dancing goddesses.” Another representation portrays a goddess figure standing upon a goat, with upraised arms and pronounced hips.

THE ROCK ART COMPLEX OF SAGHMOSAVANK (GEGHAMAVAN 1) CAVES

The cave art site is located in the vicinity of Geghamavan, Aragatsotn Province, Republic of Armenia, opposite the monastic complex of Saghmosavank, on the fourth terrace of a gorge formed by basaltic formations along the left bank of the Kasagh River. At an elevation of 70 meters above the gorge floor, within a southwest-facing natural cave known as the “Red Cave” (width: 11 m, height: 4 m, depth: 8 m), as well as on the cliff face at the entrance and upon individual laminated basalt slabs, are diverse chronological assemblages of images executed in red ochre. The site was discovered and investigated in 2002 by an expedition from the Institute of

⁴ Until quite recently, the prevailing view held that cave painting was characteristic only of the Western European region (where there are about 240 caves with Upper Paleolithic imagery) and, as an exception, had also been documented in two caves of the Southern Urals—Kapova (or Shulgan-Tash) and Ignatievka (Semenov 2008: 11). This view had become so deeply entrenched that when the paintings of the Darband Cave in the Khosrov Reserve were discovered and published by the eminent archaeologist and art historian, Academician Baken Arakelyan, he was subjected to ridicule. Thereafter, it was as if a taboo was placed on this branch of art in Armenia. Today, however, with the discovery of nearly a dozen sites across different parts of the Armenian Highland, cave images of the Khosrov Reserve.



Archaeology and Ethnography of the National Academy of Sciences of Armenia, led by Boris Gasparyan. As in the Darband cave, a spring once emerged from the cave's depths, and the pictographs were painted upon the smooth surfaces of the laminated basalt walls (Khechoyan & Gasparyan 2007: 315-316).

During 2002-2003, an Armenian-French expedition studied the rock art and conducted exploratory excavations. Archaeological investigations revealed no in situ cultural layers or artifacts from ancient periods.

Consequently, dating of the pictographs must rely solely upon stylistic and thematic art-historical analysis. The iconographic characteristics of various figures correspond to both early and late phases, indicating that the cave received pictographic additions over multiple centuries (Khechoyan et al. 2007: 247-252).

The rock paintings, positioned 40-650 cm above the cave floor, extend approximately 20 meters. Human and animal figures are smaller in scale at the center and larger toward the periphery. Human representations appear frontally, while animals are rendered in profile. The assemblage comprises 112 images of humans, animals, and symbolic signs ranging from several centimeters to 55 cm in height, organized into approximately 60 compositions. Zoomorphic representations predominate. All images were executed using red pigment derived from red tuff deposits within the cave; based on pigment quality and tonal variation, it appears to have been used both pure and mixed with ochre. Images were created using tuff fragments and brushes dipped in prepared solutions (Khechoyan & Gasparyan 2007: 317).

Two Arabic inscriptions and charcoal drawings superimposed over the ancient images date to the 17th century (1680 CE). Based on stylistic characteristics, the images can be classified into three distinct groups:

a) **Isolated figures** that do not form motifs or compositions. These static animal depictions exhibit regular proportions, volumetric modeling, detailed and coherent construction, and a relatively large scale, with a naturalistic interpretation.



According to oral testimony from Vil Mirimanov, a renowned specialist in ancient art, the wild horse image in the “Red Cave” bears stylistic affinity with the Magdalenian tradition of Upper Paleolithic cave painting in Western Europe. Stag representations display antlers with unidirectional branching—from base to tip—a convention characteristic of Bronze Age sculptures from the Kingdom of Van (e.g., the Yeghvard hoard). Stags with such antler configurations are widely represented in Armenian rock carvings.

b) **The second group** comprises relatively large animal depictions in distinctive style and static poses, forming simple compositions.

c) **The third group** consists of compositions comprising small, schematically rendered figures.

We propose that the first group of naturalistically styled images in the “Red Cave” likely dates to the Mesolithic period. The second group—comprising stylized, interconnected depictions and schematic figures—demonstrates affinities with Bronze Age rock engravings and the metalwork of the Kingdom of Van period.

CAVE PAINTING IN CILICIA

North of Antalya, along the road to Burdur, lie the Karain and Öküzini caves, excavated by Professor Kökten of Ankara University. Both caves have yielded post-glacial period mobile art sculptures. Of particular relevance to our subject are the engraved lines on the walls of Öküzini Cave, within whose complex matrix emerge bovine and anthropomorphic figures (Semenov 2008: 171-172).

Near the entrances of these caves are accumulations of cup-marks. Our field observations have documented similar cup-marks concentrations at Göbekli Tepe, Karahan Tepe, and numerous other Pre-Pottery Neolithic sites. Italian professor Emmanuel Anati interprets these marks as the earliest signs of prehistoric art (Anati 1968: 68-77). However, caution is warranted, as cup-mark accumulations have also

been documented at Bronze Age sites in Armenia (Agarak, Lchashen, and others). Similar cup-like depressions on limestone rocks, resulting from natural weathering, have been observed at numerous locations throughout Armenia (Vankhasar).

Fifty kilometers northwest of Antalya, near Beldibi village, specimens of ancient painting have been discovered on the walls of Kum Bukhaji Cave, on rocks near Lake Hayat, and near Sarı Kınar spring. The Kum Bukhaji Cave, measuring 4 × 5 meters and situated 25 meters above sea level, lies merely 100 meters from the Mediterranean coast. Its seaward-facing wall bears both engravings and paintings. Using the engraving technique, artists depicted horned animals—deer—with heads turned backward and semi-bent legs on the cave's smooth wall. This style is characteristic of Western European Late Magdalenian cave art, attributed to the Pleistocene-Holocene transition (Semenov 2008: 173).

Over the engraved images, in reddish-cinnamon ochre, are painted one animal figure and 14 geometric images—crosses and triangles—ranging from 6 to 23 cm. Professor Emmanuel Anati subdivides the cross images into three groups: a) simple crosses, b) crosses with bifurcated lower arms, c) stylized crosses, which he interprets as anthropomorphic figures. We consider his interpretation of these crosses as human figures to be unfounded, particularly the reading of the bifurcated lower sections as human legs (Anati 1968: 68-77). These are, in our view, Christian symbols, whose linear representations pervade throughout Armenia. The Beldibi crosses find close parallels in the rock carvings of the early Christian complex at Vankhasar (Simonyan & Sanamyan 2005: 163-165). The Italian scholar's misinterpretations likely stem from unfamiliarity with Cilician Armenian history and Armenian symbolism.

Perhaps the sole early painting in Kum Bukhaji Cave is the dark red ochre figure of a horned animal, which stands distinctly apart from the geometric images. Clearly, those who painted the Neolithic-Bronze Age style animal and the simple medieval cross images possessed entirely different aesthetic and ideological conceptions.

Examples of red ochre cave painting have also been discovered in a “cultic” cave near Mersin. These depict the theme of

“sacred fertilization of the earth”—schematic, extremely rudimentary images of men with arms bent at elbows and raised (in adoration position), legs spread at right angles, and emphasized phalli. Rock art with a similar structure has been discovered on the Tirsin plateau and in Kotayk Province, Republic of Armenia. Hasmik Israelyan interprets such rock art as depicting the theme of sacred fertilization of the earth by the sun deity (Israelyan 1978: 123). Ara Demirkhanyan and Vladimir Frolov interpret the small, headless anthropomorphic figure in adoration position painted between enormous raptor birds (griffons) at Çatalhöyük—comparing it to the Ж-shaped symmetric-mirror structured but phallus-lacking wall painting in Lascaux Cave’s upper and lower sections—as symbolizing the dynamic development and equilibrium of life and death (Demirkhanyan & Frolov 1985: 81). We find Hasmik Israelyan’s interpretation more realistic, particularly for figures with emphasized phalli, which for millennia have remained the allegory for depicting mythological beloved heroes.

THE THEME OF THE RHYTHMIC CEREMONIAL PROCESSION

The concept of the rhythmic ceremonial procession evident in the Darband cave paintings holds fundamental significance and achieves widespread distribution throughout Bronze Age art in the Armenian Highlands.

In the Early Bronze Age, the theme of rhythmic ceremonial procession is embodied in the iconography of a black, burnished obsidian vessel discovered at Shengavit. On the vessel’s surface, below the rim adorned with finely incised geometric patterns, a frieze depicts a successive sequence of deer proceeding from left to right.

During the Middle Bronze Age, the concept of rhythmic ceremonial procession attained a broader scope and found expression in numerous monuments. Exceptional mastery and expressiveness characterize a polychrome painted vessel



from the Ejmiatsin Museum collection, now transferred to the History Museum of Armenia, likely discovered in the Aparan region. On the vessel's surface, against a cream-colored ground, ostrich-like birds are depicted proceeding from left to right, alternating between black and red. The concept of alternation between night and day, life and death, is articulated through rhythmic color succession.

The most striking example of the ceremonial procession theme, however, is the silver goblet discovered at the Koruktash (T'reghk) burial mound. In the upper register, depicted in profile, are wolf-tailed, masked figures who, with raised goblets in ceremonial procession, advance toward a deity seated upon a throne. The lower register—the decorative band—comprises a composition depicting the slow, measured pace of northern deer, imbued with internal rhythm.

THE THEME OF "DEITIES STANDING UPON ANIMALS"

Particularly noteworthy is the depiction of deities standing upon symbolic animals in the cave paintings of Van and possibly Kakavadsor—a phenomenon that achieved widespread distribution throughout Ancient Near Eastern art during the 3rd-1st millennia BCE. The Elamites, like the inhabitants of Mesopotamia, frequently depicted their deities in decorative reliefs either seated or standing upon various animals (Hinz 1977: 165). This same principle was extensively employed in the art of the Hittite and Urartian empires. As a rule, deities of the Hittite and Van kingdoms were portrayed standing upon lions, bulls, and other symbolic animals.

Thus, both the theme of the rhythmic ceremonial procession and the concept of depicting deities upon animals find their ancient prototypes in the Mesolithic art of Armenia.

1.3 THE ROCK ART OF ARMENIA

Following the Würm glacial period, during the Mesolithic phase (11,500-8,500 BCE), abstract and naturalistic rock art emerged across virtually all continents—Eurasia, North and South America, Africa, and Australia—representing one of

prehistoric art's most universal phenomena. The monumental cave paintings of the Upper Paleolithic gradually yielded to relatively smaller-scale petroglyphs, many imbued with dynamism and movement. While exceptional examples reach 4-5 meters in height, these remain anomalies.

The creations of prehistoric sculptors—sometimes technically unrefined and formally imperfect, yet saturated with immediacy—present an enchanted world populated by magic, charms, deities, and benevolent and malevolent spirits, where reality and imagination are intimately interwoven. These constitute distinctive documents of ancient art and painting, dispersed throughout the Armenian Highlands. The petroglyphs reflect all spheres of our ancestors' quotidian and spiritual activities, their worldviews, myths, and religious and mythological conceptions. They serve as crucial historical primary sources, enabling the study of the ancient art, lifeways, rituals, and cults of the inhabitants of the Armenian Highland.

During the 1970s, vigorous scholarly debates emerged concerning whether petroglyphs constitute “genuine art” or merely products of mass “creative activity” that cannot be considered art proper (Formozov 1979: 8). We incline toward the position that the artistic domain encompasses not only masterpieces but the entire sphere of human creative thought—including ordinary, often “folk” works. In ancient art, these include petroglyphs, pottery decoration, and applied ornament.

AN ALTERNATIVE THEORETICAL APPROACH:

We disagree with scholars who classify cave paintings as petroglyphs. Undoubtedly, creators of both petroglyphs and cave paintings intended to produce silhouettes, drawings, and other images on flat surfaces. However, one was achieved with pigment and a brush, the other with a stone hammer or a chisel. Based on execution technique, we may conclude these represent distinct branches of ancient art: cave painting was executed through drawing, while petroglyphs were primarily produced through carving, engraving, and pecking

techniques—the distinction between cave painting and rock carving parallels that between painting and sculpture.

In the Armenian Highlands, individual petroglyph complexes are dispersed across considerable territories. Within large “picture galleries,” they are carved upon successive rows of solidified lava flows—talus formations—featuring flat, seemingly prepared surfaces favorable for carving, located dozens or hundreds of meters apart. In certain locations, the solidified lava flows bearing centuries-old carved petroglyphs extend several, and, occasionally, tens of kilometers.

The petroglyph environment also contains habitation caves, remains of dwellings, workshops, production complexes, “temples” and cultic towers, burial mounds and cromlechs, stone idols and vishap stelae. The concentration of diverse monuments in high mountain zones attests to the concept of “sacred landscape” rooted in prehistoric worldviews (Avetisyan et al. 2015).

Petroglyphs constituted an integral component of a historical-cultural commonwealth that may be figuratively termed mountain or “sub-alpine civilization” (Simonyan 2011: 86).

Such monumental heritage could not escape our historians’ attention. In the *History of the Armenians* by patriarch-historian Movses Khorenatsi, the legend of Tork Angegh is recounted as the son of Paksam and grandson of Hayk Nahapet. This mythical hero not only repelled invading ships threatening our homeland from the Black Sea with enormous boulders, but also polished rocks with his fingernails, transforming them into inscribed tablets or carving eagles and other images upon them: “For they sang of him that he forcefully struck rough rocks with his hands, where there was no beauty, and split them according to his will, great and small; and with his fingernails scraped and shaped them as tablets, and likewise with his fingernails inscribed eagles and other such things” (Khorenatsi, Book II, Chapter VIII).

This represents one of the earliest references to the petroglyph engraving widely distributed throughout the Armenian Highlands. According to Aram Ghanalanyan, the deity Tork, attested in the pantheon of the Armenian Highland’s indigenous peoples—Hittites, Hayasans, and other tribes—likely derives from the Hittite deity Tarku (Ghanalanyan 1978: 26).

HISTORY OF ROCK ART RESEARCH

The rock art of the Armenian Highlands first captured scholarly attention at the dawn of the twentieth century, when pioneering Armenologists and archaeologists began documenting these enigmatic symbols carved into stone (Ter-Movsisyan 1913: 66; Ghapantsyan 1914: 91-96; Lisitsyan 1972: 51-57). These early researchers meticulously mapped, reproduced, and attempted to decipher the semantic significance of these ancient markings, laying the foundation for the systematic study of Armenian prehistoric art.

Among the first to apply rigorous scientific methodology to Armenian rock art was Ashkharbek Kalantar, who systematically documented the known petroglyphs and established the field's inaugural corpus in 1935 (Kalantar 1935: 73-74). His pioneering work was subsequently expanded by scholars, including Sedrak Barkhudaryan (1935) and Lavrenti Barseghyan (1966: 147-160), who contributed significant insights to this emerging discipline.

A watershed moment in Armenian rock art studies occurred through the efforts of geologists Alexander Demyokhin, V. Avetisyan, Solomon Balyan, and E. Malkhhasyan, who discovered extensive petroglyph sites throughout Vayots Dzor, the Geghama Mountains, and Syunik province. Their 1966 discoveries in the Martuni region garnered international scholarly attention. This breakthrough prompted the Armenian Academy of Sciences Presidium to establish specialized expeditions in 1967, dedicated to the comprehensive investigation of Armenia's rock art sites and cave complexes. During the 1967-1968 field seasons, Academy researchers documented numerous petroglyph concentrations in the Hrazdan, Azat, and Ukhtakunq river basins, along the slopes of Mount Aragats, the Geghama, Vardenis, and Areguni mountain ranges, and throughout the eastern littoral zones of Lake Sevan (Martirosyan 1969: 191).

Harutyun Martirosyan, collaborating with Hasmik Israelyan, conducted extensive fieldwork in the Geghama Mountains, particularly around Mount Paytasar. They pioneered the semantic interpretation of rock art imagery, analyzing thematic content through the lens of Armenian folklore traditions—an

innovative methodological approach that connected prehistoric symbolism with living cultural memory (Martirosyan 1969: 191-208; Martirosyan & Israelyan 1971; Martirosyan 1981).

Between 1945 and 1982, Sandro Sardaryan discovered and documented numerous petroglyph sites on the slopes of Mount Aragats and throughout the Geghama range. His contributions proved instrumental in developing a descriptive vocabulary for these ancient artistic expressions. Sardaryan conceptualized rock art as a primary historical source illuminating prehistoric human experience and worldview (Sardaryan 1967: 113-122; 2010).

Varuzhan Vasilyan advanced the semantic analysis of rock art imagery, particularly focusing on the iconographic interpretation of vishap (dragon-stone) representations within the petroglyph corpus (Vasilyan 1985: 41-49). Architect Suren Petrosyan undertook monumental documentation efforts, systematically surveying the Geghama Mountains over multiple field seasons and meticulously recording thousands of petroglyphs. His precise measurements and documentation remain authoritative primary sources for contemporary research (Petrosyan 2005).

During 1966-1968, Grigor Karakhanyan and Pavel Safyan discovered and documented hundreds of rock carvings at Ukhtasar in the Syunik Mountains, subsequently publishing their findings in a comprehensive monograph that remains an essential reference for rock art specialists (Karakhanyan & Safyan 1970).

In 2012, an expedition from the Scientific Research Center for Historical and Cultural Heritage of the Republic of Armenia's Ministry of Culture, led by Hakob Simonyan, discovered and analyzed petroglyphs on the upper slopes of Mount Sartse and throughout the Vayots Dzor mountain system, from Mount Murad to Al Lake⁵. This research revealed a significant pattern: prehistoric artists consistently selected rock surfaces near streams and springs for their creations—sites such as Jermuk-Sartse Mountain, Zarr, and Paghaghbyur. This deliberate site selection reflected both practical considerations—favorable summer pasturage for pastoral communities—and spiritual significance, manifesting the widespread ancient veneration of life-giving water emerging from stone, a phenomenon

⁵ Karen Tokhatyan also participated in the work of the Vayots Dzor expedition.



perceived as miraculous across numerous cultural traditions (Simonyan 2015: 70). These concentrations of thousands of petroglyphs, accumulated through the efforts of countless generations at such environmentally and symbolically significant locations, can be conceptualized as sculptural “schools”—not merely artistic expressions driven by creative impulse and identity formation, but functioning as open-air “temples” for ritual practice (Simonyan 2015: 71).

Recent discoveries of petroglyph sites have been made by Karen Tokhatyan (2006: 52-59), Grigor Areshyan, Samvel Shahinyan, Hamlet Martirosyan (2008: 198-247), and Hovhannes Azizbekyan (2023: 1-7), each contributing fresh theoretical perspectives and methodological innovations to the field.

Rock art research in Armenia has gained renewed momentum in recent years, attracting significant attention from European scholars. German researchers have undertaken particularly extensive projects, employing cutting-edge documentation technologies to comprehensively record Syunik’s petroglyphs. Their ultimate objective encompasses the nomination of Armenian rock art sites for UNESCO World Heritage status, recognizing these monuments as distinctive cultural landscapes possessing exceptional artistic value and universal significance (Franziska et al. 2013: 210-228).

GEOGRAPHIC DISTRIBUTION

Rock art sites form an extensive network across the Armenian Highland’s mountainous, piedmont, and valley regions, occupying altitudinal zones between 1,000 and 3,000 meters above sea level.

These petroglyphic landscapes are distributed throughout virtually every region of the Armenian Highland: the mountains of Syunik and Vayots Dzor, the Kotayk plateau, the Geghama Lake basin, Mount Aragats’s slopes, Khosrov Reserve, the historical provinces of Gugark, Javakheti, Artsakh, Nakhichevan, the Aratsani basin, the slopes of Mount Masis (Great Ararat), the Kars plateau, the basins of Lakes Van



and Kaputan (Urmia), Aghdznik, Corduene, Armenian Mesopotamia, and numerous other localities.

Particularly dense concentrations have been documented in the Geghama Mountains (Paytasar, Zarr), Syunik (Ukhtasar, Tsak Sar, Yugharot), the Lesser Caucasus (Tashir-Paghaghbyur complex), Artsakh (Sev Khach, Vaykunik, Tsar), the Jermuk region (Mount Murad, Al Lake), Gegharkunik (Azhdahak), the Vardenis range and adjacent mountain systems, the high-altitude slopes of Mount

Aragats, the Van Lake basin (Tirishin-Tirsin plateau), Tsoghk (Adiyaman), and elsewhere. Significantly, petroglyphs also occur in the piedmont and valley zones of the Aragatsotn district within Ayrarat province, specifically integrated within Bronze Age mortuary landscapes between the villages of Aghavnatun, Voskehat, and Lernamerj.

According to Sandro Sardaryan's surveys, the mountain valleys surrounding Mount Paytasar's summit in the Geghama range encompass approximately 50 square kilometers. Throughout this terrain, petroglyph clusters are distributed in an archipelago-like pattern, creating distinctive open-air "galleries" that function as natural repositories of prehistoric art (Sardaryan 2010: 7).

Similar spatial configurations characterize the mountains of Vayots Dzor and Syunik, as well as the elevated slopes of Mount Aragats. Sites such as Ukhtasar, Karkarer, and Jermajur represent millennia-old sacred (*sacral*) landscapes where seasonal communities resided during summer months, engaged in artistic production, and performed ritual ceremonies. The continuous use of these sanctified spaces over thousands of years resulted in palimpsest-like accumulations, with successive generations of rock art superimposed upon earlier imagery, creating complex multi-layered compositions. This stratigraphic superposition provides crucial evidence for establishing relative chronologies and understanding the temporal depth of rock art traditions.

Among Historical Armenia's open-air "museums," a remarkable petroglyph "gallery" is situated on the Tirishin



(Tirsin) plateau, located 150 kilometers south of Lake Van at an elevation of 2,400 meters above sea level. This extensive complex, where several thousand petroglyphs have been documented (Tumere 2018: 21-41), features stylized representations of ibexes, cervids, hunting narratives, ritual dances, and celestial symbols attributed to the Neolithic-Chalcolithic periods. These images demonstrate clear stylistic affinities with the rock art traditions of northern Armenia, suggesting shared symbolic vocabularies and cultural connections across the Highland.

Preliminary inventories indicate that tens of thousands of petroglyphs have been documented throughout the Armenian Highland (Simonyan 2014/15: 70), with 20,000-30,000 examples recorded within the Republic of Armenia alone (Azizbekyan 2023: 1). This corpus is distinguished by its remarkable thematic richness and distinctive diversity of technical execution styles, reflecting the complexity and longevity of Highland rock art traditions (Simonyan & Tokhatyan 2012: 24-27).

THE ROCK SURFACES

Throughout Armenia's mountains, high-altitude plateaus, and mountain slopes, diverse petroglyphic imagery has been carved onto the smooth surfaces of volcanic tuff formations, solidified lava flows, cliff faces, rocky outcrops, volcanic "bombs," and isolated basalt boulders.

Rock art was also executed on surfaces polished by glacial action—including morainic erratic boulders and cave wall faces—predominantly on basalt substrates and, more rarely, on exposed hard tuff formations (as documented at Kakavadzor). These naturally occurring smooth rock faces and volcanic stone surfaces functioned as organic "canvases" for prehistoric artists.

Ancient carvers demonstrated marked preferences in their selection of working surfaces, consistently choosing tabular, planar substrates of dark coloration—copper-toned, deep blue-black, and black andesite-basalts. These hard volcanic

surfaces, characteristically covered with a distinctive desert varnish or “sun-burnt” patina, provided ideal media for petroglyphic production. This selective use of specific geological substrates reflects both practical considerations—the durability and workability of the stone—and potentially aesthetic or symbolic preferences for these naturally darkened surfaces that enhanced the visibility and longevity of the carved imagery.

TECHNICAL EXECUTION

Rock art production employed diverse lithic and, subsequently, metallic implements of varying hardness, utilizing multiple technical approaches: percussion (point-impact pecking), engraving, incising, abrasion, selective removal of the weathered patina surface, three-dimensional carving, and, rarely, pigment application. Individual figures range dimensionally from several centimeters to multiple meters. Petroglyph grooves typically measure up to 2 millimeters in depth with approximately equivalent width. At Yugharot, engraved imagery achieves depths reaching 5 millimeters (Azizbekyan 2023: 9). The petroglyphs exhibit considerable variability in technical execution quality. Image definition and precision were likely determined not only by the artisan’s skill level but also by the quality and sophistication of available tool technologies.

Particularly innovative techniques are documented in which natural rock depressions were incorporated as water-collection basins, within which artists depicted fish (Amul Mountain) or animal herds approaching these symbolic “pools” to slake their thirst (Simonyan & Tseretyan 2018: 245-247, figs. 10-11). Through this creative integration of natural topographic features, prehistoric artists achieved a sense of three-dimensional relief, combining spatial perception with perspectival representation. This sophisticated use of natural rock morphology demonstrates an advanced understanding of how geological features could be incorporated into artistic compositions to enhance their visual impact and symbolic meaning.

ICONOGRAPHIC REPERTOIRE

The petroglyphic corpus exhibits extraordinary thematic diversity, encompassing representations of humans, domestic and wild fauna, predators, serpents, and, less frequently, avian figures. The imagery includes geometric and phytomorphic ornamental patterns, wheeled vehicles—including carts and war chariots—as well as complex narrative compositions depicting hunting expeditions, labor activities, ritual ceremonies, cosmogonic narratives, calendrical systems, astronomical observations, military encounters, and mythological episodes.

This comprehensive iconographic program reflects the full spectrum of prehistoric life and belief systems, from quotidian activities to sacred cosmologies, demonstrating the rock art's function as both historical document and symbolic text encoding the worldview of ancient Highland communities.

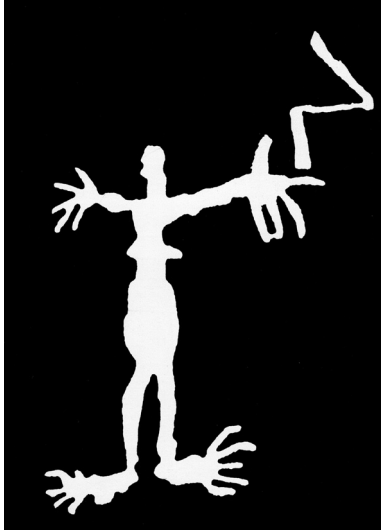
GEOMETRIC MOTIFS

Particularly significant are the hooked crosses (swastikas) documented by Barseghyan (1966: 150), which symbolized perpetual motion, the four cardinal directions, and potentially the four primordial elements—fire, water, earth, and air (wind). These hooked crosses were extensively employed in Bronze Age ceramic ornamentation, with the earliest documented example appearing on a polychrome vessel from Shengavit (Simonyan 2015: 72-73, fig. 6).



A distinct category of geometric imagery comprises radiant circles, dots, cupules, and dots nested within circles. These symbols predominantly represent celestial bodies, particularly solar and astral phenomena. Celestial symbols typically accompany mythological heroes and animals, signifying their heavenly origins.

Less frequently occurring are compositions constructed from geometric elements—lines, triangles, rectangles, spirals, and other forms—as documented at Voskehat and Mount Murad.



ANTHROPOMORPHIC REPRESENTATIONS

The corpus includes abundant depictions of human figures—hunters, heroes, ancestral progenitors, and women—alongside deities, mythological beings, and benevolent or malevolent spirits. Humans and animals are commonly portrayed in association with celestial bodies, primarily solar and lunar symbols, and occasionally constellations and landscape elements. Human figures are conventionally rendered nude. Particularly impressive are the stylized representations of patriarchal ancestors, mythological heroes, and celestial hunters. A substantial thematic category encompasses “sacred fertilization of the earth” imagery, featuring male deities in adoring postures with emphasized phalli.

Exceptional is the Yugarot parturition scene depicting a woman in childbirth, which demonstrates remarkable parallels to the Portasar (Göbekli Tepe) imagery, replicating all details of posture and compositional arrangement (Azizbekyan 2023: 17, fig. 49.1). This iconographic correspondence suggests shared symbolic vocabularies across distant prehistoric communities of the Near East.

ZOOMORPHIC REPRESENTATIONS

These predominantly comprise naturalistic sculptures that, despite their schematic stylization, achieve a recognizable representation of animal species and their distinctive characteristics. Careful examination reveals wild fauna including ibexes, bezoars, wild goats, mouflons, cervids, elk, wild boars, aurochs and wisents (wild horned cattle), alongside domestic species: water buffalo, bulls, cows, dogs, horses (both domestic and wild varieties), donkeys, rams, and sheep. Predators are represented by foxes, wolves, bears, and large felids—leopards, lions, and tigers—while mythological creatures and reptiles include serpents and dragon-serpents (*vishaps*). Avian representations, though rare, display considerable variety.

The most prevalent imagery is reptilian—particularly giant serpents—and especially includes wild goat depictions. This predominance likely explains why shepherds in various Armenian regions traditionally referred to petroglyphs as “goat-writings” (*itsagrer*). Hovhannes Azizbekyan’s astute

observation distinguishes goats from sheep through tail positioning: raised tails indicate goats, while lowered, “pendulous” tails signify mouflons or wild sheep (Azizbekyan 2023: 15, fig. 46).

MATERIAL CULTURE REPRESENTATIONS

This category encompasses weapons, domestic implements, and transportation technologies—wheels, carts, war chariots, sledges, rafts, and watercraft.

ARCHITECTURAL PLANS AND LANDSCAPE REPRESENTATIONS

Notable are cartographic depictions of irrigation systems, trap configurations, enclosure barriers (*kayter*), and ground plans of enigmatic structures.

PHYTOMORPHIC IMAGERY: THE TREE OF LIFE

Though numerically limited, botanical representations display remarkable diversity. Known examples employ stylized iconography to depict the Tree of Life. Particularly striking is the recently discovered Tree of Life on Mount Sartse, exhibiting coniferous characteristics (Simonyan 2015: 79, fig. 10).

The Tree of Life constituted a universal cult object throughout the ancient world, representing the cosmic axis and life’s quintessential symbol. The hierarchical tripartite cosmic structure finds embodiment in the “Tree of Life” concept. Archaeological evidence reveals Tree of Life imagery—with branches ascending from vertical trunks—in Middle Bronze Age polychrome ceramics (Upper Naver) and silver vessel ornamentation (Koruktash). Luxuriant Trees of Life bearing fruit appear on ornamental frames surrounding male portrait masks crafted from bitumen, discovered in Upper Naver’s royal tomb (Simonyan 2014: 222-226; Simonyan 2019).

The Tree of Life motif proliferates throughout Urartian art. The canonical composition depicts sacred trees flanked by deities or monarchs performing libations from ceremonial vessels or irrigating the sacred plants—a visual theology of cosmic renewal and divine kingship.

CULT STATUARY

Stone idol sculptures occur intermittently within petroglyph complexes. Particularly impressive is the basalt idol discovered in the alpine meadows near Zarr village in Kotayk Province, distinguished by its intimidating circular eyes (Simonyan 2015: 79, fig. 11). Among the earliest anthropomorphic sculptures is the life-sized tuff idol from Tomb 5G at Nerkin Naver, bearing a solar disc with eleven cupules carved upon its chest (Simonyan 2021: 16-17, figs. 9-10).



Armenian petroglyphic compositions clearly distinguish schematic, stylized outline representations of female-form idols. One such example from the Vardenis Mountains presents a highly abstracted figure composed of geometric forms—a rectangular torso surmounted by a square head. The anthropomorphic character emerges through diagonal lines at the rectangle's upper portion, suggesting shoulders, and the concave lower edge of the square indicates the neck. A vishap-serpent appears in proximity to this figure.

Another anthropomorphic figure in the Vardenis Mountains bears a spiral eternity symbol upon its head, facing a bezoar goat adjacent to a stellar cluster—a mythological quadruped with a lunar crescent on its thigh—and a large feline predator. Ashkharbek Kalantar discovered another assemblage of female idols in the 1930s on Mount Aragats's southern slopes (Barseghyan 1966: 151). These four female-form representations, while stylistically similar to the Vardenis petroglyphs, display greater compositional complexity and expressiveness.

Two Aragats female petroglyphs bear umbilical markings; one features a belt, and the fourth displays an emphasized triangular pubic symbol. These elements substantiate their identification as female representations. The Aragats female figures appear with four goats and a leonine creature. The associated T-shaped symbol corresponds to the "Staff" constellation in pre-Mashtots notation systems (Martirosyan 1978: 31).

Interpreting these female representations reveals their celestial associations. The female figures appear alongside solar emblems, lunar crescents, stars or constellations, spirals, goats, lions, and dragons—all of which denote the heavenly realm as

a divine residence. This establishes the depicted women's holy nature and the celestial setting of these narratives.

In numerous ancient belief systems, the goat—as an exceptionally virile animal—symbolized masculine fertility principles and frequently appeared alongside female figures. According to Harutyun Martirosyan: “This zoomorphic motif apparently expresses one of the Mother Goddess's principal functions—her connection with thunder-lightning and celestial forces. Goats themselves, as highly fertile beings, have since antiquity been linked to agricultural fertility concepts, embodying thunder-lightning and heavenly waters phenomena” (Martirosyan 1978: 33).

Significantly, several Armenian Bronze Age monuments—particularly the Verin Naver (Tomb 34) and Nerkin Naver (Tombs 1, 3) cemeteries—reveal early Middle Bronze Age royal burial chamber outlines resembling the female figure characteristics recorded in petroglyphs and Early Bronze Age sculptures. This mythologically significant correlation extends to these female-body-plan tombs, which yield bones of lions and other large felines, small horned livestock, and serpents among sacrificial remains (Simonyan 2021: 18, 23, 25, figs. 13-14). Thus, the Woman-and-Lion pairing in petroglyphic compositions finds archaeological parallels in burial contexts combining female-form grave architecture with faunal remains matching rock art imagery.

These female-figure petroglyphs display remarkable stylistic affinities with terracotta and tuff idols from Armenian Early Bronze Age (4th-3rd millennia BCE) sacred sites. The Pulur idols—clay female figurines in seated positions upon altars—like the Aragats petroglyphs, appear in group compositions. Shengavit's 60-70 cm tuff idols feature incised eyes, square heads, and in one instance, sloping shoulders reminiscent of Vardenis petroglyphs (Simonyan 2013: 14-15, figs. IV-VI).

Some scholars interpret the Aragats petroglyphs as depicting the Fertility Mother Goddess surrounded by subordinate deities. The idol sculptures from Shengavit and Pulur, along with anthropomorphic and zoomorphic relief motifs on ritual vessels, demonstrate stylistic correspondence with petroglyphic ornamental patterns. This convergence provides solid grounds for dating this petroglyph group contemporaneously with

4th-3rd millennia BCE archaeological materials, establishing crucial chronological anchors for understanding the development of Highland symbolic traditions.

IDEOGRAMS (PICTOGRAMS)

Ancient or pre-literate signs—pictograms and ideograms—have been discovered at numerous archaeological sites throughout Armenia. These symbols undoubtedly conveyed specific meanings and content. The vernacular designation for petroglyphs, *itsagrer* (“goat-writings”) (Karakhanyan 1970: 6), is considered by Hamlet Martirosyan as significant evidence for their function as ancient script (Martirosyan 2008: 200).

To contextualize the emergence of ideographic systems, around 3,000 BCE, the Sumerians developed a sophisticated pictographic notation for economic record-keeping, rapidly adopted by Elam. Elamite clay pictographic tablets dating to circa 2,900 BCE have been documented (Hinz 1977: 25). Sumerian and Elamite pictograms primarily depicted animals, vessels, and plants, with approximately 150 distinct forms representing words, though they remain undeciphered. These Sumerian pictographic systems enjoyed extended use, gradually spreading northward across broader geographical regions.

We propose that the pre-alphabetic image sequences on Armenian rocks and Bronze Age pottery surfaces constitute pictographic systems, featuring rhythmically arranged human figures, animals, predators, birds, serpents, celestial bodies, and vegetal and geometric symbols. While Mesopotamian pictograms served primarily economic functions—inventories, imports, and exports (Vaiman 1972, No. 3: 124)—Armenian petroglyphs predominantly address mythological, martial, and hunting themes.



STYLISTIC CONVENTIONS

Armenia’s ancient rock-carved “stone manuscripts” exhibit diverse dimensions, motifs, compositional genres, technical execution methods, and expressive registers. Stylistically, petroglyphs divide into two principal categories: naturalistic and stylized, each further subdivided into dynamic (kinetic) and static representations.

In dynamic thematic narratives, symbolic imagery transforms into realistic hunting scenes, with schematic human figures gaining corporeal presence, and directing weapons against both game animals and each other.

Animals appear predominantly in static poses, though they are also captured mid-flight or leaping from heights to escape pursuers. Human figures likewise appear both statically and kinetically. Complex human-animal compositions proliferate. “The masterpieces of this prehistoric art are the archers in grand hunting scenes, whose diminutive figures pulse with singular intent: not to miss” (Sardaryan 1967: 113-122).

Heroes, deities, and animals were depicted, emphasizing defining attributes. Rather than carving entire herds—a laborious undertaking—ancient artists depicted single animals with exaggerated characteristics. A goat or sheep herd might be symbolized by a single creature with disproportionately long horns extending from head to base, achieving monumentality and collective representation. Alternatively, a five-legged goat indicated herd magnitude (Sardaryan 2010: 10).

Animals predominantly appear in profile—most vulnerable and easiest to render from this angle. Conversely, chariots and carts typically occur from a bird’s-eye perspective. This convention characterizes not only Armenian petroglyphs but nearly the entire Eurasian region—Siberia, Central Asia, Mongolia, continental Italy, Sardinia, Scandinavia (Formozov 1979: 15). An Armenian four-figure composition remarkably parallels France’s Lascaux Cave imagery, both rendered from an overhead perspective.

Mythological representations emphasized specific body parts according to thematic significance. Extended, widely spread legs symbolized swiftness. Particularly prevalent are deities with exaggerated phalli in allegorical earth-fertilization scenes, where earth represents the feminine principle.

Colossal figures with radiating fingers likely symbolized lightning-wielding deities. Clarifying zigzag lines representing lightning sometimes appear near their hands. In ancient Indo-European beliefs, goats symbolized lightning. Syunik petroglyphs portray the thunder god with goat-lightning bolts leaping from outstretched hands, enhancing the storm deity’s representation.

The petroglyphs also demonstrate sophisticated spatial techniques including perspective, viewpoint (*raccourci*), linear perspective, and reverse perspective (Florensky 1967: 381-416).

THEMATIC CONTENT OF PETROGLYPHS

The petroglyphs can be classified into the following categories: 1. individual figures (objects) and scenes (landscapes), 2. thematic compositional narratives. Quantitatively, individual animal figures and group compositions predominate, primarily depicted in static poses. These appear to embody bezoar goats, mouflons, or vast herds frozen upon rock faces, grazing on mountain slopes. Bezoar goat representations are most prevalent—hence the vernacular designation “goat-writings” (*itsagrer*). This tradition of naming ancient art monuments after their most frequently depicted animals extends beyond Armenia. In Mongolia and Transbaikalia, massive stones predominantly feature deer imagery, and are consequently termed “Deer Stones” (*Olennye kamni*) (Savinov 1994).

Common representations include profile-view wild goats, foot and mounted hunters armed with bows and arrows, deer, serpents, dragon-serpents (*vishaps*), and celestial bodies.

Petroglyphic art encompasses compositional imagery and, in certain instances, extensive thematic narratives. The thematic repertoire displays remarkable diversity, portraying both secular episodes—such as hunting, warfare, agriculture, and domestic life—and mythological, cosmogonic, cultic, and ritual-magical scenes. It also includes sacred earth fertilization, ceremonies, theatrical performances, rhythmic processions and dances, sorcery, miraculous events, and mythological narratives.

Notable are hunting scenes featuring dogs, in which hunters. Primary game animals include bezoar goats, argali or wild sheep, ibex, red deer, fallow deer, aurochs, and others. One dramatically charged Paytasar composition depicts a male with massive horns cradling a lost kid between its legs, attempting to protect the helpless young from dogs attacking from four directions⁶. Another petroglyph presents a multi-figure hunting scene: “Armed men on one side, animals on the other. The image stuns with its dynamism—figures with legs spread

⁶ In this instance, Sandro Sardaryan identifies the deer as a hind (see Sardaryan S., *Rock Carvings, Yerevan*, 2010: 8). In our view, however, the prehistoric artists were excellent connoisseurs of animals and could not have depicted a female with such enormous antlers.

wide lean forward, arrows about to fly from drawn bows” (Sardaryan 2010: 8).

These ancient carved images convey core themes of struggle against nature’s untamed forces, life-and-death battles between humans and animals, prehistoric humanity’s dreams and worldviews, significant and impressive episodes from daily existence, and, occasionally, dramatic events.

THE SEMANTICS OF PETROGLYPHS

The study of petroglyphs represents one of art history’s most challenging endeavors, as all interpretations remain hypothetical—at best grounded in historical, folkloric, and ethnographic parallels. Unlike other forms of early art enclosed within defined borders or confined spaces with clearly interconnected motifs, petroglyphic composition is fundamentally “open.” In certain instances, natural rock surface contours serve as distinctive boundaries.

However, petroglyphs frequently occupy only small portions of rock surfaces, rendering the concept of compositional boundaries seemingly absent. Typically, figures are freely carved across stone surfaces. Moreover, individual figures—either related to earlier narratives or entirely independent—could be added subsequently. To resolve this complex situation, multi-figure petroglyphic compositions require classification by structure before semantic analysis—distinguishing all contemporaneous, thematically related figures to reconstruct complete images, only then attempting to “read” them⁷.

Petroglyphs contain numerous allegorical subjects bearing diverse semantic loads. Ancient creators clearly faced the challenge of depicting ritual-magical, mythological, martial, and hunting narratives, myths, or domestic themes using primitive tools on hard rock surfaces—primarily andesite-basalts—within limited, flat spaces. To solve these challenges, ancient artists developed various techniques and approaches for depicting expansive subjects through concise, expressive means and schematic figures.

DATING CHALLENGES AND METHODS

Rock art in the Armenian Highlands originated during the Mesolithic period, subsequently proliferated throughout

⁷ Researchers of rock carvings are well aware of how difficult it is to reproduce them accurately. At different times of day, under varying lighting conditions, and when viewed from different angles, the contours of the figures—or their individual details—may shift and be perceived in entirely different ways. Consequently, not all drawings can be regarded as reliable primary sources unless they are supplemented with photographs.



the Neolithic, and through continuous development persisted until the Kingdom of Van period, with residual elements surviving into medieval times. Throughout this vast temporal span, the traditional stylistic conventions and technical execution of pictographic representation remained remarkably consistent, significantly complicating chronological attribution.

Dating prehistoric art—particularly cave paintings and petroglyphs lacking archaeological stratification—remains unresolved. Yet precise dating forms the foundation for interpreting artwork within specific historical-cultural contexts, revealing the temporal atmosphere and spirit, and connecting creations with ancient mythological and religious conceptualizations. Metaphorically, dating provides the “skeleton” upon which art’s “body” is constructed.

Petroglyph dating employs both archaeological and art-historical approaches. Most significant methodologies include: a) technical execution analysis; b) compositional and thematic structure examination; c) stylistic characteristic assessment; d) superimposition stratigraphy analysis; e) comparative typology of depicted weapons, tools, ornaments, and vehicles with securely dated archaeological artifacts. However, this seemingly robust method requires caution, since precisely datable archaeological artifacts may have been utilized extensively both before and after petroglyph creation (Formozov 1979: 10).

Mesolithic petroglyphs can be identified by their compositions featuring schematic bow-wielding human figures alongside naturalistic game animal depictions. This period witnessed nascent interest in human representation, while Upper Paleolithic naturalistic traditions of animal representation persisted (History of Art of the Peoples of the USSR, Vol. 1, 1971: 47).

Cart and chariot thematic subjects undoubtedly belong to the Bronze Age. Vehicles frequently appear from a bird’s-eye perspective as ground plans, a convention also observed in Gobustan and Dagestan petroglyphs. Later period petroglyphs demonstrate increased schematization (History of Art of

the Peoples of the USSR, Vol. 1, 1971: 48). Thus, Mesolithic naturalistic animal figures became schematic during the Bronze Age.

Armenian petroglyph dating also relies on similarities between rock art figures/scenes and Bronze Age ceramic ornamentation.

Recently, elemental analysis of microscopic metallic tool residues in petroglyph grooves has emerged as a dating method, widely applied to Siberian rock art. Unfortunately, this technique applies only to relatively late petroglyphs, at most in the Early Iron Age.

Dating discussions must consider prehistoric art's inherently conservative stylistic nature (Okladnikov 1979: 9; Formozov 1979: 9), significantly complicating style-based chronological attribution.

Geological observations have also been employed for dating (Azizbekyan 2023: 23-28). This promising approach requires refinement, comprehensive documentation enrichment, and interdisciplinary integration.

Voskehat's newly discovered petroglyphs hold exceptional chronological significance for Armenian rock art. Unlike most Highland petroglyphs, which are situated at 2,500-3,500 meters in elevation, Voskehat examples occur at 1,000-1,100 meters. Their crucial distinction lies in organic association with burial sites, providing unprecedented chronological anchoring. Through a meticulous 2023 survey and mapping of Voskehat cemetery, nine petroglyphs were discovered. Three excavated tombs—Nos. 22, 37, and 65—directly associated with petroglyphs. Large boulders near tomb cromlechs bear south-facing engravings of bezoar goats with massive horns and heads oriented eastward.

At Tomb 37's petroglyph forecourt, circular altars constructed from large basalt boulders yielded dozens of 7th-century BCE silver, bronze, and iron weapons and ornaments discovered within and beneath stones. Clearly, Voskehat's inhabitants venerated the petroglyph, constructing altars and offering precious gifts in the hope of divine favor.

Tomb 65's inner cromlech's southern stone face bears another goat depiction. Though looted, artifacts from the tomb floor,

outer casing, and tumulus “armor” stones predominantly date from the early Late Bronze Age through the Kingdom of Van period (15th-7th centuries BCE). The southern dromos rock-cut floor hollow yielded an overlooked early Late Bronze Age burial with three intact vessels and skeletal remains. Northern chamber artifacts discarded by looters date to the Late Bronze Age-Kingdom of Van period. Notable is a three-edged obsidian blade with a table-shaped cross-section and bifacial retouch, possibly of Early Bronze Age date.

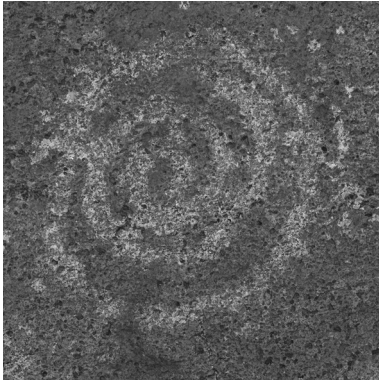
Thus, Voskehat petroglyphs—compositionally and technically indistinguishable from Syunik, Geghama Mountains, Aragats, and other sites—were created and venerated from the Early Bronze Age through the Kingdom of Van period, circa 3500-700 BCE. Voskehat petroglyphs exhibit certain stylistic features potentially bearing chronological significance. Tomb 44’s animal panel displays characteristic bezoar goat horn protuberances. The petroglyphs in Tombs 37 and 65 depict goats’ forelegs touching, widening upward, and forming robust haunches and powerful thoraxes. This stylistic principle characterizes late-phase petroglyphs, significant for dating rock art throughout Armenia.

ASTRONOMICAL OBSERVATIONS

Celestial body representations (solar symbols) proliferate throughout rock carvings, frequently accompanying mythological heroes and heavenly beings. The depiction of animals and humans within celestial contexts, in our view, symbolizes the supernatural, non-terrestrial nature of these beings. According to established scholarship, celestial body veneration became particularly widespread during the Bronze Age. Petroglyphs saturated with luminous symbols primarily date to this period (Formozov 1978: 270-275).

Armenia’s ancient inhabitants’ imagination was profoundly influenced by meteorites, meteors, comets, and possibly “flying saucers.” These portentous celestial phenomena underwent periodic reinterpretation throughout antiquity and the medieval periods. Comets were perceived and reproduced consistently in Armenia, appearing both in Bronze Age petroglyphs (Mount Murad) and on early medieval church walls at Ptghnavank and Artik (Simonyan 2015: 72, fig. 3-4).





Correlating these petroglyphs and murals with astronomical observations provides a foundation for identifying and dating celestial phenomena. Rock carvings contain spatial-temporal orientation markers which, according to Benik Tumanyan, functioned as calendars and star cluster maps, symbolizing the Leo, Sagittarius, and Scorpio constellations (Tumanyan 1969: 7-9). Spiral petroglyphs, closely resembling Armenian Early and Middle Bronze Age ceramic ornamentation, likely symbolized spiral stellar formations.

Exceptional within the global rock art tradition is the astronomical map on Sev Kar (Black Stone) or Sev Sar's northern slope, at the Vardenis range's western edge—3 kilometers east of Martuni's Selim Pass, at 2,600 meters elevation, within Geghhovit village's administrative territory. Discovered by Suren Petrosyan in 1965, natural rock surfaces host an entire cultic complex with enigmatic central sculptural images. The unique 6-square-meter central petroglyph, according to Benik Tumanyan, depicts the Milky Way constellation and an extraordinary cosmic event—a massive meteor's appearance in Armenian skies (Tumanyan 1972: 107-108). Hypothetically, the Sev Sar crater near the petroglyphs resulted from a meteorite impact (Tokhatyan 2011: 173; 2014: 287-288). Nearly all publications circulate Harutyun Martirosyan's schematic diagram. Subsequently, geologist Hovhannes Azizbekyan meticulously reproduced the stellar map. His more precise version corrects inaccuracies in earlier published astronomical charts (Azizbekyan 2022: 5-9, fig. 11).

We hypothesize that priest-astronomers stationed at Sev Sar observed the star-filled sky and created rock “inscriptions” functioning as both astronomical and calendrical map-calendars (Brutyan 2018). Ancient peoples famously attributed great significance to celestial bodies, predicting human destinies through their movements and risings.

Not coincidentally, the theory advanced in the early 20th century by William Olcott and others continues to circulate—that humanity's most outstanding astronomical achievement, the discovery of zodiacal constellation orientation, occurred during the 30th-28th centuries BCE in the territory between the 36th and 42nd meridians, specifically near Mount Ararat (Olcott 1911: 7-8). European scholars reached this conclusion through astronomical observations (determining where and

when zodiacal constellations appear at specific latitudes) and theoretical geographical studies (examining which geographical-climatic environments host zodiacal animals). Sev Sar's exceptional astronomical map, undoubtedly unknown to Olcott and contemporaries, provides tangible evidence supporting their brilliant hypothesis.

THE GREAT MOTHER GODDESS NAMMU: MYTHOLOGICAL REFLECTIONS IN ARMENIAN ROCK ART

The cult of the goddess Nammu permeated the religious landscape of numerous ancient Near Eastern civilizations, extending from the Persian Gulf to the headwaters of the Euphrates and Tigris rivers. The Sumerian cosmogonic myth presents a primordial universe submerged in the boundless waters of the celestial Ocean—waters without beginning or end. Within this cosmic ocean resided Nammu, the primordial mother and genesis of all existence. Though virginal, she achieved self-conception through divine parthenogenesis, ultimately giving birth to the twin deities An (sky, masculine principle) and Ki (earth, feminine principle)⁸.

These divine siblings initially existed as a unified entity—conjoined twins in mythological terms. Following their separation, they entered into hierogamy and produced the brothers Enlil and Enki. The latter, also known as Haya, presided over wisdom and riverine domains. He fashioned flora and fauna, humanity and the pastoral deities, thereby enriching the cosmos with manifold beneficence.

The primordial mother Nammu finds her counterpart in the Hurrian pantheon's supreme deity, designated as the "Great Sea"—a parallel to the Armenian Tsovinar. This goddess, similarly virginal and without a male consort, conceived miraculously and bore the storm-god Teshub and the fertility goddess Ishtar—a narrative echoing the Armenian tradition of Tsovinar bearing twin sons. An alternative mythological variant describes Teshub emerging from his father's mouth, gaining incremental strength with each passing hour—a motif paralleled in the Armenian epic tradition where David of Sasun exhibits identical temporal empowerment.

⁸ Of particular interest are the parallels of ki-kin and the antithetical unity of heaven and earth in Armenian tradition and in the Sumerian myth. Most likely, the Greek goddess of the earth, Gea, derives her name from the root gen, and with it the notion of the earth as a feminine principle. The conception of the twin entities—earth and heaven—is also reflected in ancient Armenian myth, most vividly in the archaic hymn celebrating the birth of Vahagn, remarkable for its rhythmical cadence, with the lines: "*Earth travailed with Earth, Heaven travailed with Heaven.*"

Teshub engages in cosmic combat against the sea-dragon to liberate his sister-consort imprisoned in the celestial sphere—a narrative structure mirrored in Sanasar’s battle against the dragon to rescue his sister-consort confined within the “Bronze City.” The myth depicts oscillating victory in this primordial struggle, with dominance alternating between Teshub and the serpent-dragon. During Teshub’s defeats and subsequent withdrawal from humanity, catastrophic drought ensued: rivers desiccated, and humanity was deprived of wine, beer, and bread—agricultural products archaeologically attested in the Armenian Highlands since at least the Neolithic period. This evokes the formulaic expression from *Sasna Tsrer*: “Bread and wine, the lordly sustenance.”

Conversely, Teshub’s victories heralded terrestrial abundance and prosperity. According to Harutyun Martirosyan’s analysis, Teshub was fully integrated into the Urartian pantheon as a paramount deity, his attributes ultimately “generating the lineage of Armenian divine figures Vahagn-Sanasar” (Martirosyan 1978: 37).

The Sumerian and Hurrian cultural spheres maintained profound ethno-cultural connections with the Armenian Highlands from the Neolithic period onward. This reciprocal relationship persisted throughout the Urartian kingdom era. Such evidence substantiates the conclusion that the Nammu-Tsovinar mythological complex was already disseminated throughout the Armenian Highlands during the period 5,500-3,600 BCE. The schematic representations of the Great Mother carved into the Vardenis and Aragats petroglyphs likely constitute visual manifestations of this mythological tradition. Despite their rudimentary, unsophisticated execution, these petroglyphs exhibit remarkable attention to iconographic detail.

Martirosyan’s assertion that “Sumerian religious concepts undoubtedly achieved widespread dissemination in Armenia” (1978: 33) requires nuanced reformulation: “religious concepts documented in Sumerian written sources were also widely disseminated in Armenia.” This distinction is crucial, as the direction of cultural influence—whether Armenian traditions influenced Sumer or vice versa—remains archaeologically indeterminate. Most plausibly, this mythological complex

represents a manifestation of “wandering” narratives—mythological motifs with pan-Near Eastern circulation—expressed independently in both Armenian and Sumerian contexts.

According to Martirosyan, during the pre-civilizational epoch, the Mother Goddess embodied supreme divine functions. The ancient myth inspiring these petroglyphic representations can be partially reconstructed through comparative analysis. Significantly, the anthropomorphic female figurines from Shengavit, Pulus, and Metsamor exhibit formal correspondences with stone statuettes of the primordial goddess Nammu recovered from Sumerian temple complex of Eridu.

One exemplar features prominently enlarged eyes (paralleling the Metsamor specimen), with two human figures incised on the abdomen—representing the unborn twins. Another figurine substitutes paired goats for the twin motif on the ventral surface. The prevalence of caprine imagery in both Sumerian artistic production and Armenian rock art demonstrates not merely stylistic but substantive thematic convergence.

Hovhannes Azizbekyan discovered an extraordinarily distinctive assemblage of petroglyphs at Tsak Sar and Yugharot depicting embryonic development within the female womb—fertility symbolism unique within both Armenian and broader Eurasian rock art traditions. The conceptual framework of pregnancy and parturition potentially finds additional expression in the bas-relief on an Early Bronze Age ceramic sherd from Vanadzor.

Armenian petroglyphs occasionally feature ophidian-human hybrids—serpentine bodies crowned with human heads. The earliest documented sculpture of this mythological human-serpent entity, carved from sandstone, derives from the Pre-Pottery Neolithic site of Nevali Çori within the Portasar cultural complex (Hauptmann 2002: 44, fig. 10). During the Bronze Age, human-serpent iconography achieved broader distribution throughout Mesopotamia and Elam (Hinz 1977: 37; Shvets 2008: 21).



1.4 THE PORTASAR CULTURE (GÖBEKLI TEPE, 11,500–9,600 BCE)

During the Mesolithic, or Pre-Pottery Neolithic period, a remarkably distinctive culture emerged across the Syrian steppe and the southern regions of the Armenian Highlands, within the Euphrates-Tigris interfluvial zone. While its paramount monument—Portasar (Göbekli Tepe)—lies beyond the strict geographical boundaries of the Armenian Highlands, approximately a dozen sites attributable to this same cultural complex are situated within the Highlands proper. Among these, the artificial settlement mound of Nevalı Çori has undergone partial excavation, though it now lies submerged beneath the reservoir created by damming the Euphrates. The remaining sites await systematic archaeological investigation.

The German archaeologist Klaus Schmidt devoted the final decade of his career to excavating Portasar, providing us with unprecedented access to one of the most ancient and enigmatic cultures of the Armenian Highlands. The temple complexes of Portasar crown a commanding hilltop elevation, offering panoramic views northward to the snow-capped peaks of the Armenian Taurus, while in all other directions, the sun-scorched, dust-laden Mesopotamian plains extend for hundreds of kilometers to the horizon. Schmidt's excavations, initiated in 1994, fundamentally revolutionized our previously unchallenged conceptions of Pre-Pottery Neolithic society, monumental architecture, and sculptural traditions.

Although only a modest fraction of the site has been excavated to date, the discoveries proved to be so extraordinary that Portasar now ranks among the world's most significant archaeological monuments. Excavations at the summit revealed vast quantities of knapped flint artifacts—debitage and finished implements, including projectile points, blade tools, scrapers, and diverse lithic instruments. The archaeological evidence suggests that an extensive workshop complex for manufacturing weapons and tools operated here over prolonged periods, supplying the technological needs of surrounding populations.

The socio-cultural imperatives that motivated prehistoric communities to transport raw flint from distant quarries

to this remote, elevated location—far removed from water sources and subsistence resources—remain enigmatic. Tools were manufactured at this highland site, then transported downslope to supply valley communities with essential implements. This practice presumably reflected belief systems that elude modern comprehension.

A comparable phenomenon has been documented through our excavations at Amulsar, where, at an elevation of 2,800 meters above sea level, Chalcolithic-Bronze Age workshops dedicated to obsidian tools and weapons production were uncovered (Simonyan & Tseretian 2018: 243-244). These workshops maintained continuous operation across centuries, with obsidian procured from sources tens of kilometers distant—most likely from the wealthy exposed deposits of Shushasar. The strategic placement of both Amulsar and Portasar workshops in high-altitude, logistically challenging locations remote from raw material sources likely reflects parallel ideological systems: weapons and tools manufactured in sacred spaces were presumably imbued with supernatural efficacy.

In the majority of published archaeological literature, Portasar is classified as a Neolithic site, specifically Pre-Pottery Neolithic. However, in art historical scholarship, its chronological span (circa 12,000-9,000 BCE) conventionally falls within the Mesolithic period. We faced a methodological dilemma regarding the appropriate chronological framework for presenting this site and its associated artistic corpus. Given that Portasar's basal strata date to approximately 11,500 BCE and the subsistence economy remained predominantly focused on foraging and hunting, we determined that contextualizing this material within the Mesolithic chapter would be most logically coherent.

Among the monuments of the Portasar cultural horizon, the artificial settlement mound of Nevali Çori has also received partial archaeological investigation. However, it now lies inundated beneath the waters of the Euphrates reservoir system.



ARCHITECTURE

The structures erected at Portasar twelve millennia ago exhibit ground plans and monumental characteristics diagnostic of archaic temple complexes. These edifices featured spiral, circular, and rectangular floor plans. Monolithic T-shaped pillars carved from sandstone, standing 2-5 meters in height, were positioned at intervals of several meters, delineating circles, spirals, and rectangles spanning 15-30 meters in diameter. The interstices between these regularly arranged pillars were subsequently filled with walls constructed from split and unworked sandstone fragments. No residential structures or burial grounds have been documented in proximity to these temple complexes. To date, four temple structures with circular ground plans have been fully excavated. Georadar surveys indicate that an additional 23 structures remain buried beneath approximately 10 meters of rubble fill.

The basal sections of the temple pillars measure 12 centimeters narrower than their shaft diameters. These stylized pillars are demarcated from their shafts by hemispherical bands. The pillar capitals—the upper platform surfaces—feature densely arranged hemispherical depressions that were presumably filled with combustible materials and ignited during ceremonial performances and ritual observances. This evidence suggests that the central, pillar-adorned sections of the temples were open-air structures. This interpretation finds additional support in the observation that the central pillars exceeded the height of the peripheral columns.



In one circular hall, two central pillars, standing 5 meters tall and weighing approximately 50 tons, were erected, with their capitals rising at least 2 meters above the level of the circularly arranged peripheral pillars. Bas-relief carvings of disproportionately elongated arms extend vertically along the sides of these central pillar bases, terminating in hands. These are hypothesized to represent sculptural embodiments of demiurges symbolizing masculine and feminine principles.

According to universally accepted archaeological theory, monumental architecture could only emerge within stratified societies possessing ruling classes—that is, during periods characterized by productive economies and civilization. Yet, remarkably, the Portasar structures predate the Neolithic Revolution. Radiocarbon dating places them at 11,500-9,600 BCE, established before the genesis of early agricultural productive economic systems (agriculture, animal husbandry, pottery production, etc.).

The functional purpose and construction motivations for these structures remain problematic. One hypothesis suggests these monumental edifices served cultic ceremonies dedicated to fertility worship (Schmidt 2012). During religious rites, pilgrims from all tribes inhabiting a radius of several hundred kilometers would have congregated here. However, the fertility cult hypothesis proves considerably vulnerable, as Portasar lacks incontrovertible evidence of fertility symbolism—sculptures representing masculine and feminine principles that saturate virtually all Neolithic sites. Among hundreds of statues and bas-reliefs, only one male figure with emphasized genitalia exists, alongside a single engraving possibly depicting childbirth or perhaps a copulation scene.

In 2016, Professors Martin B. Sweatman and Dimitrios Tsikritsis advanced a hypothesis supported by substantial evidence that the monumental structures of the Portasar culture were designed for astronomical observations⁹.

We are more inclined to hypothesize that these remarkable monument complexes—whose construction demanded enormous effort and labor investment—were intended for ancestor worship and mortuary ritual. This may explain the predominance in the sculptural program of chthonic animals symbolizing the netherworld: serpents, scorpions, and particularly carrion-consuming vultures, boars, hyenas, and foxes. The majority of bas-reliefs depict animals and reptiles that, according to archaic belief systems, served as intermediaries between this world and the afterlife. This perhaps elucidates the somber atmosphere wherein human figures—possibly already deceased—were also carved. The absence of formal cemeteries proves inconsequential in this context, as established necropolises did not yet exist during

⁹ Sweatman, M. B. & Tsikritsis, D., 2017, *Decoding Göbekli Tepe with archaeoastronomy: What does the fox say?* Mediterranean Archaeology and Archaeometry, Forest Publishing Limited, UK, Vol. 17, No. 1, p. 237.



this period. The site likely hosted excarnation rituals—the ceremonial cleaning of corpses by vultures and predators—a practice subsequently widespread in ancient Aryan and later Zoroastrian traditions.

After functioning for approximately two millennia, this cultic complex was abandoned for reasons that remain obscure. The causes may include the establishment of new productive economic systems, the settlement of riverine valleys rather than game-rich mountain regions, and the adoption of novel agricultural belief systems and lifestyles. It is certain that following the establishment of Pottery Neolithic cultures, numerous Mesolithic and Pre-Pottery Neolithic sites ceased occupation. However, before abandoning their ancestral sanctuaries—perhaps to protect them from desecration by barbarian tribes—the ancient inhabitants of Nevalı Çori and Portasar deliberately buried the temple complexes beneath hundreds of tons of rubble fill. This intentional burial preserved these ancient structures in remarkably pristine condition. What powerful belief system motivated such a monumental effort—seemingly senseless at first glance—remains an insoluble enigma.

BAS-RELIEFS AND HIGH RELIEFS

The upper portions of meticulously polished monolithic sandstone pillars feature bas-reliefs, high reliefs, and sculptural intaglios measuring 22-24 centimeters in height. These comprise naturalistic representations of fauna: felids (lions/leopards), wild bulls (aurochs), boars, onagers, ibex, mouflon (wild sheep), foxes, hyenas, wolves; avifauna including vultures, storks/cranes, long-legged waders, ducks, herons, and possibly ostriches; as well as reptiles and arthropods—serpents, lizards, scorpions, centipedes, bees, and ants. The carving technique involved initial rough shaping, followed by deep incision for the pillar surfaces and raised relief for the figural elements (Schmidt 2010: 239-256).

Chthonic serpentine forms are rendered in dynamic poses—slithering or coiled to strike. Their triangular heads emphasize their venomous nature, whose bite inevitably brings death. Compositions depicting intertwined serpents moving collectively in a unified direction create a viscerally terrifying

effect, placing viewers within an environment of imminent ophidian threat.

Geometric motifs appear in rhythmic linear arrangements, dominated by semi-arches, V-shaped symbols, ram heads, reticulated patterns, and other designs that expedition director Klaus Schmidt designated as proto-hieroglyphic signs. The recurring geometric symbols and insect imagery on certain Portasar sequences likely constitute pictographic notation bearing specific semantic content. Priests presumably employed these symbols—whose meanings remained exclusive knowledge—to transmit coded information.

SCULPTURES

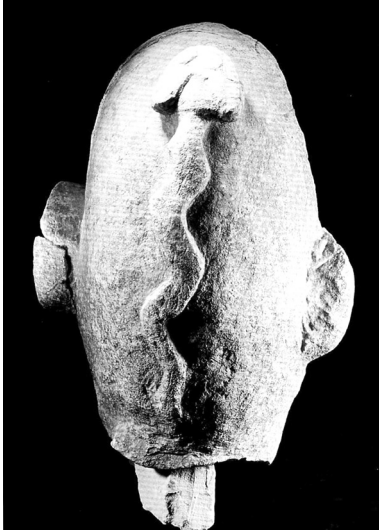
The carved and sculpted representations exhibit expressive naturalism, revealing animal behavior and human character traits. While stylized, hyperrealistic—even “surrealist”—sculptures exist, the naturalistic works prove most compelling. Outstanding among these is the “Young Woman” bust: regular features, contemplative expression, slightly narrowed eyes with a dreamy gaze, and a delicately arranged fringe symbolizing modesty.

Particularly significant is the male head sculpture featuring an upward-slithering serpent in relief replacing the nose—embodying either a human-serpent deity or a mythological figure with fierce, brutal features. This human-serpent concept subsequently manifested in Armenian petroglyphs and Elamite sculptures depicting serpents with human heads (Dyakonov 1961: 119).



Proud vultures with raised heads appear above bifrontal human sculptures—apparent psychopomps mediating between life and death, the beneficial and malevolent afterlife realms toward which deceased souls journey.

Especially striking are sculptures of large felid predators captured mid-rage—bared fangs, wrinkled muzzles—bearing remarkable similarity to jaguar representations in Central and South American cultures, particularly Incan art, as well as medieval Armenian feline



sculptures. Monumental boar sculptures in a proud stance symbolize brute force.

According to prevailing archaeological theory, Mesolithic/Early Neolithic hunter-gatherers devoted most time to subsistence procurement. Within this context, it seems nearly impossible that humans could quarry and shape massive sandstone pillars—several tons each, with demiurge pillars approaching 50 tons—transport them manually to elevated summits, embellish them with bas-reliefs and high reliefs through fracturing and polishing techniques, and construct temple complexes.

In 2022, at Sayburç village near the Euphrates—a Portasar culture site—Eylem Özdoğan discovered an 11,000-year-old stone slab (70/90×370 cm) within a public building. This features an ancient “narrative” composition comprising two interconnected scenes with five figures total:

(a) A frontal high-relief male figure (round face, large ears, thick lips, bulging eyes) grasping his phallus, wearing a neck ornament, flanked by profile leopards (male and female);

(b) A bas-relief of a massive bull attacking a six-fingered human in semi-profile, with bent legs, holding an elongated staff (serpent?). The bull’s head is twisted to display both massive horns.

This latter scene faintly echoes the famous “Bull-Leapers” fresco from Knossos, Crete. The first composition’s predators display terrifying open jaws, bared fangs, and raised tails directed toward the man—possibly an ancient precursor to the Daniel in the Lions’ Den narrative?

Sayburç’s bas-reliefs share intimate stylistic connections with Göbekli Tepe’s imagery. Feline predators display identical bared teeth, open jaws, and erect tails. Bull heads, as at Portasar, are sculpted frontally with splayed horns. The primary distinction lies in Portasar’s superior finishing.

These newly discovered compositions demonstrate nearly all ancient sculptural techniques: bas-relief, high relief, frontal (en face) and profile rendering, plus the convention of depicting bulls with profile bodies but frontal heads. While four figures are bas-relief, the phallus-grasping man appears in high relief, emphasizing his compositional centrality.



This high relief parallels the “Urfa Man”—a life-sized (190 cm) standing figure discovered in 1993 at Balıklıgöl, attributed to the Portasar culture. Though stylistically distinct, both share features: double-strand bead necklaces and six-fingered hands on abdomens. Below the Urfa figure’s hand, an aperture likely held an organic phallus, now lost.

In 2021, Karahan Tepe—mere dozens of kilometers from Portasar—yielded cultic structures with circular, irregular, and rectangular plans. Central T-headed monolithic sandstone pillars, spaced meters apart in circular arrangements, connect via unworked stone walls. Phallic worship as male fertility symbolism proves explicit here.

Within one structure, earth-based pillars terminate in stone capitals. South of eleven phallic stelae, a rudimentary human head is rock-carved. Most notable: a 2.3-meter nude male sculpture prominently displaying his phallus with both hands.

We can conclude that specialized foraging economies in the ancient Near East had already developed the procreative ancestor figure—males with emphasized phalli—and associated phallic cults. This worship proliferated in Bronze Age Armenian culture, evidenced by Shengavit pendant-amulets and monumental stone sculptures.

The ethnic identity and religious beliefs of Portasar culture’s enigmatic creators remain unknown, as do the centuries of accumulated knowledge and technical mastery enabling them to embellish monoliths, create unprecedented sculptures, and construct labor-intensive monumental architecture—7,000 years before Egypt’s pyramids. Indeed, beyond subsistence needs, they prioritized spirituality, contemplated eternity, and created enduring art.

Portasar culture encompassed approximately a dozen Mesolithic/Pre-Pottery Neolithic centers, including Armenian Highland sites where human intellectual achievement briefly blazed before dimming, until civilization’s dawn again dispelled encompassing darkness. Particularly noteworthy: the technological and typological similarities in flint and obsidian tool production documented at Karahan Tepe and Çayönü Tepesi.



CHAPTER 2

THE ART OF THE NEOLITHIC PERIOD

(8,500-5,500 BCE)



2.1 ARMENIA IN THE NEOLITHIC: THE NEOLITHIC REVOLUTION IN THE ARMENIAN HIGHLANDS A Historical-Cultural Overview

According to paleodemographic calculations by Edward Deevey, Robert Braidwood, and Charles Reed, the entire global population during the Lower Paleolithic period numbered merely one hundred thousand individuals. By the Upper Paleolithic, approximately 30,000-20,000 years ago, the world's population had already reached three million—signifying that, on average, one person inhabited every fifty square kilometers (Deevey 1971: 51; cf. Andrianov 1978: 21). During the appropriating economy of the Mesolithic period, Earth's population was seventeen to twenty times smaller than that of humanity during the Neolithic phase, when the productive economy of early agriculture emerged (Braidwood and Reed 1957; Deevey 1960; Kushnareva 1993: 18-19).

An evident interdependence existed between humans and their natural environment. The food resources of specific territories—their biomass—functioned as distinctive regulators of population density (Pokishevsky 1974: 23). Following the last glacial period, when megafauna became extinct and nomadic hunting bands were compelled to adapt to new conditions, population numbers declined once again. The primary causes were malnutrition and frequent famines under the appropriating economy, resulting in exceedingly high mortality rates.

THE CULTURE OF SUBSISTENCE

According to Vadim Masson, the economic systems of early societies rested upon four fundamental elements: the object of exploitation (flora and fauna), the natural environment, labor

implements, and the primary producer—humans with their intellectual capabilities (Masson 1976: 21).

Efficient food processing and providing quality nutrition to society have posed fundamental challenges and served as developmental catalysts for every community throughout history. This was true in the past, remains so in the present, and will continue into the future. Agriculture played a decisive role in ensuring stable food supplies for human populations. This process can be subdivided into two principal phases:

- a) **Specialized gathering**, which emerged during the terminal phase of the Mesolithic;
- b) **Cultivated agriculture**, which Gordon Childe aptly characterized as the “Neolithic Revolution.”

For Near Eastern agriculture, the cultivation of cereals was paramount, particularly the later-developed irrigation agriculture that subsequently underpinned the civilizations of the ancient Near East.

The productive economy that originated in the Near East during the Neolithic—encompassing both animal husbandry and agriculture—generated revolutionary transformations not only in economic life but also in the spiritual and cultural spheres. The renowned British archaeologist Gordon Childe, as emphasized above, astutely formulated these fundamental changes as the “Neolithic Revolution.” Naturally, he employed the term “revolution” for rhetorical impact, intending to convey the sharp historical turning point represented by the transition from an appropriating to a productive economy (Childe 1955: 167-168; 1971: 15-21).

During the Neolithic phase, resources obtained through gathering and hunting still occupied a considerable place in the dietary spectrum. However, it is certain that through the productive economy, new methods of food production—agriculture and animal husbandry—achieved predominance in the Near East, including the Armenian Highlands.

The productive economy fostered the emergence of new craft specializations and, more broadly, the unprecedented development of culture. During the Neolithic, everyday implements were fashioned from bone, obsidian, and flint. Basalt hoes served for field cultivation, while grinding stones,

querns, and mortars were employed for processing cereal harvests. Simultaneously, flexible tree branches were woven into containers and fishing baskets.

Agricultural practice transformed humans into sedentary beings. The pastoral lifestyle—particularly following the domestication of milk-producing animals—necessitated the processing of dairy products and the expansion and preservation of food varieties, conditions that precipitated the emergence of pottery. The widespread adoption of ceramic vessels facilitated the effective and long-term storage of both plant and animal foodstuffs, thereby ensuring stable food supplies during the winter months. The utilization of fired clay containers substantially eased the labor of women responsible for food preparation.

Through agricultural development, humans began cultivating fiber-producing plants (flax, hemp) and weaving textiles from the resulting threads. Neolithic sites have yielded stone and clay spindle whorls used in textile production, as well as bone needle heads. Clothing fashioned from plant fibers substantially improved and enhanced the comfort of daily life (History of the Ancient East 1983: 47-50).

The new economic system significantly improved society's subsistence base, opening previously unknown developmental prospects for humanity. A stable, prosperous, and secure lifestyle—founded upon the production of food through animal husbandry and agriculture—became the foundation for and contributed to dramatic population growth.

Following the transition from an appropriating economy to a productive lifestyle during the early agricultural period, the global population increased seventeenfold compared to the Mesolithic. Whereas previously up to seven people inhabited one hundred square kilometers, during the Neolithic the population of the same area reached one thousand individuals (Kushnareva 1993: 18-19).

In the Neolithic period, which witnessed substantial demographic growth, societal development resulted in clan consolidation and tribal formation. This process was conditioned by the imperative to collectively solve economic challenges facing communities, as well as to defend vital territories against neighboring encroachments. Evidence

for conflicts between human groups is provided both by battle scenes in early rock art and by burials excavated in the cave called Wadi Mugharah of Palestine's Natufian culture. The bone fractures observed among the Pre-Pottery Neolithic individuals interred there were, in all probability, consequences of armed conflicts (Semenov 2008: 151).

DEMOGRAPHIC PRESSURE AND TERRITORIAL EXPANSION

The excessive proliferation of “mouths to feed” rapidly depleted both the biomass naturally available in specific territories and the resources that could be produced using contemporary technical means. This necessitated the search for new, favorable territories for habitation. Consequently, the segmentation of the parent tribe occurred—a process of fragmentation that resulted in the separation of new tribes and clans, which were compelled to migrate and appropriate new territories. These groups, distancing themselves from the parent clan, established settlements in nearby, previously uninhabited or sparsely populated areas. The resettled populations delineated their living spaces—pastures, hunting grounds, and fishing zones. This endless chain process led to the dispersal of ethnic groups and their distinctive cultures across vast territories. The tribes and clans that split from the parent stock presumably spoke a common language. According to linguists, it was precisely during this period that the first division of the Proto-Indo-European language occurred (Gray & Atkinson 2003: 435-438).

Despite fragmentation, neighboring clans and tribes preserved shared ceremonial protocols for festivals and burial rites. During important celebrations, ritual ceremonies, and funerals of distinguished individuals, proximate clans gathered at common assembly sites (the cultic complex at Portasar likely served as such a gathering place).

Perhaps the endless process of clan division and appropriation of new territories explains the diffusion of Ubaidian, Halafian, and Hassunian cultures across enormous regions: Northern Mesopotamia, the Van Lake basin, the Ararat Plain, Syunik, the Mil-Karabakh lowlands, and even distant Daghestan.

Pottery specimens characteristic of these cultures have been documented throughout nearly the entire Armenian Highlands. Parallel to these influences imported from the south, distinctly local cultures also developed.

The long-term preservation of stereotypes characteristic of archaeological cultures—such as pottery forms, decorative patterns, architectural layouts, burial rites, and distinctive artistic styles and themes—in settlements and necropolises separated by hundreds of kilometers is an undeniable reality. Examining the complex mechanisms of their formation remains an important and challenging problem that has engaged several generations of scholars. We believe that the tradition of kindred tribes periodically gathering for various occasions also played a role in the formation of archaeological cultures.

ENVIRONMENTAL ADVANTAGES OF THE ARMENIAN HIGHLANDS

The Armenian Highlands, with their physiogeographic and climatic diversity—featuring fertile alluvial river valleys and luxuriant alpine meadows intersected by towering mountain massifs—provided favorable conditions for the development of both agriculture and animal husbandry. Throughout the world, including Armenia, the climate during the Neolithic period was more humid and warm than it is today. Rivers and lakes were abundant with water, larger and deeper. Rivers and streams flowed through areas now arid, nurturing dense forests rich with fruit-bearing trees (Litt et al. 2001: 1233-1249).

AGRICULTURE AND THE ARMENIAN HIGHLANDS

According to several authoritative scholars, animal husbandry and agriculture originated in regions where wild species of cereals and domesticable animals naturally occurred (Vavilov 1932: 135-136; Takhtadzhyan 1941). A crucial substantiation for this axiomatic conclusion is the reality that numerous wild cereals grew naturally in the Armenian Highlands and were extensively utilized during the early agricultural phase. Thus

began the cultivation process of barley, wheat, oats, and other crop plants.

Armenia has preserved extensive relic fields of einkorn and emmer wheat to the present day. During the 1920s and 1930s, Mikayel Tumanyan, Alexander Araratyan, Baruk Garaseferyan, and other botanists documented wild wheat and barley fields in Yerevan (Bardzrashen, now Mushakan), Kotayk (Jrvezh, Hatsavan, Voghjaberd, Goght, Garni, Tsaghkadzor, Jrashen-Tolk, and others), Vayots Dzor (Getap, Aynadzor, Rind, Arpa, and others), Gugark (Dsegh, Ighahat, Mets Parni, Pambak), Syunik (Meghri), Nakhichevan (Aznaberd), and Artsakh (Sardaryan 1967: 127-130). In these fields, cereals have continued to grow through natural self-reproduction from ancient times to the present. Nowhere else on Earth exists such a quantity and diversity of wild wheat fields. It is no coincidence that Nikolai Vavilov, who personally studied the flora of three-quarters of the planet, concluded that Armenia is indeed the homeland of wheat (Vavilov 1968: 98).

Several species of domesticable animals—the aurochs (wild bull), mouflon (wild sheep), bezoar goat (wild goat), horse, and donkey—were likewise widespread in the Armenian Highlands (Vavilov 1968: 98). Rafik Baroyan substantiates the Armenian Highlands as the homeland of the primary dairy animal, the cow, through Armenian etymologies of the toponyms Caucasus (*kov ka*, “cow exists”) and Taurus (*tavar*, “cattle”) (Baroyan 2022). According to archaeological data, by the Neolithic period, nearly all meat- and milk-producing animals had already been domesticated—cattle, sheep, goats, pigs, and buffalo—whose wild ancestors, as noted, had inhabited the Armenian Highlands since antiquity. These facts attest that Armenia is among the primary homelands of agriculture and animal husbandry.

Armenia, unlike neighboring Mesopotamia, was also rich in stone, copper, and other metal deposits, as well as tree species suitable for construction—resources essential for the formation of a complex early agricultural economy.

In our view, folk tradition provides exceptional information about the formation of early agricultural culture in Armenia.

In the archaic phase, the dog held a positive role among Armenians, as in Indo-Aryan and Iranian-Aryan belief systems. In contrast, later—particularly in the medieval period—perhaps under Christian ideological influence, it was transformed into a negative figure. Despite this transformation, ethnographic narratives clearly distinguish ancient substrata containing important information about primeval events. Of particular significance to our topic is a legend from ancient Armenian folklore, that, in our view, relates to the origins of agriculture and cereal cultivation.

THE LEGEND

“In the beginning, there was no bread in the world. One day, a hungry dog began to howl incessantly while gazing at the sky. It howled so persistently that a single grain fell from heaven to earth. The grain sprouted, grew, and filled the field with wheat. The dog’s master harvested the field, threshed the ears, and ground the wheat. Thereafter, the world was filled with bread” (Ghanalanyan 1969: 403).

THE DOG AS CELESTIAL FIGURE

According to Sargis Harutyunyan, Corresponding Member of the Armenian National Academy of Sciences, the Armenian custom of giving the first baked bread to the dog stems from an etiological narrative in which bread came into the world through the dog’s agency. Since the grain fell from heaven through the dog’s mediation, Harutyunyan concludes that the dog thereby established a relationship with the celestial sphere, serving as mediator between earth and heaven for human sustenance (Harutyunyan 2000: 429). Developing his argument further, he concludes that in this legend of grain’s origin (cultivation), the dog’s figure is interconnected with Ara the Beautiful—the dying and resurrecting deity embodying grain germination—since, according to ancient beliefs, dog-like beings called *aralez* descended from heaven to resurrect the deity (Harutyunyan 2000: 430).

We should add that evidence of the dog’s celestial associations includes the Armenian tradition of calling Sirius—the brightest star in the Hayk-Orion constellation—*Shnastgh* (Dog Star) (Alishan 1895: 125). It is well established that Hayk

Nahapet was deified posthumously and, ascending to heaven, was transformed into a constellation, acquiring his cosmic essence as the Hayk-Orion constellation. It is no coincidence that the Armenian translators of the Old Testament originally rendered the Orion constellation as Hayk (Bible: Isaiah 13:10, Job 38:31). In this context, particularly noteworthy is the depiction of Hayk Nahapet in the early medieval bas-relief on the tomb of Armenian kings at Aghts'k, which portrays the hero hunting a boar with two dogs (Arakelyan 1941: 29-36; also Arakelyan 1949; Azaryan 1975: 23; Simonyan 2011: 24).

OTHER SUBSTRATA OF THE LEGEND

According to our observations, the legend contains deeper semantic substrata. The dog was humanity's first domesticated animal, its irreplaceable helper and companion from those primeval times when humans still pursued an appropriating lifestyle and had not yet learned to cultivate cereals: "...in the beginning there was no bread in the world." Under conditions of gathering and hunting subsistence, human existence depended on nature's whims, and hunger was humanity's constant companion, reflected in the expression "the hungry dog."

SPECIALIZED GATHERING

During the terminal phase of the Mesolithic period, after millennia of empirical observation, humans began practicing specialized gathering by protecting natural cereal fields from destruction by wild animals to obtain stable and abundant harvests (Kushnareva 1993: 174-175). Wild grain fields were presumably constantly ravaged and trampled by wild animals, particularly by bands of wild boars, resulting in the anticipated harvest being frequently destroyed entirely or in large part.

Now, drawing upon data from Armenian folk tradition, let us attempt to reconstruct episodes of primeval life. During the post-glacial period, to guard wheat or barley fields—the primary food source—wandering bands of Mesolithic hunters temporarily settled near ripening fields to protect and harvest the yield. They soon recognized the advantages of protecting crops from wild animal destruction using domesticated dogs.

The results must have been remarkably effective. Dogs, with their acute sense of smell, immediately detected approaching wild animals, pursued and drove them away, thereby saving the harvest. Field productivity increased incomparably, and "... the world was filled with bread." Let us return to the Aghts'k bas-relief: the dogs assisting the hero attack the boar. Might this not preserve, in vestigial form, an ancient substratum of the tradition of dogs chasing away boars—the fields' primary enemy?

THE DOG AS AN AGRICULTURAL FIGURE

We are convinced that the substratum of this folk tradition is authentic and relates to the germination of agricultural culture itself. The dog's importance in cereal cultivation, as we have demonstrated, is directly attested: "The hungry dog howled so persistently that a grain fell from heaven to earth. The grain sprouted, grew, and filled the field with wheat." Myths about dying-and-resurrecting grain deities belong among the most ancient traditions. We hypothesize that this narrative perhaps originated during the terminal Mesolithic or Neolithic period—the initial phase of early agricultural culture's germination—and that it reproduces with remarkable detail the path of agriculture's origin and development.

Notably, a myth about grain's appearance also exists in Mesopotamia. Among Sumerian traditions is the narrative "How Grain Came to Sumer," whose title remarkably resonates with the Armenian tale "How the World Was Filled with Bread." Unlike Armenian folklore, which contains at its core a "local" substratum—the grain falls from heaven to earth—in the Sumerian myth, cereals were imported. According to this tradition, the gods Anu and Enlil brought barley, wheat, beans, and other crops to the "Mountain of Sunrise," from where the deities Ninazu and Ninmida seized and carried them to Sumer, where previously humans, like sheep, had eaten grass. Thus did grain appear in Sumer (Afanasev - Review of: Kramer 1963: 202). According to Vadim Masson, the Mesopotamian myth contains a very ancient substratum of folk tradition originating in the 8th-7th millennia BCE, which preserves, in vestigial form, actual events (Masson 1976: 51).

ARCHAEOLOGICAL EVIDENCE

Specialized gathering is attested by Pre-Pottery Neolithic sites where flint sickle inserts, mortars, pestles, querns, and other stone implements for grain processing have been discovered. Sites rich in such artifacts include Zawi Chemi Shanidar in the Zagros Mountains and sites in the Deh Luran Plain of Elam (Masson 1976: 48-49). In the Republic of Armenia, similar stone tools for processing wild cereals—including flint sickle blades—have been discovered at the Pre-Pottery Neolithic sites of Barozh and Zaghaner in Aragatsotn Province, dated to the transitional Mesolithic-Neolithic period.

According to Sandro Sardaryan, these finds attest to the use of wild cereals during the Late Mesolithic-Neolithic period (Sardaryan 1967: 134). Whether the harvested grain processed with these stone tools resulted from specialized gathering or primitive cultivation remains unclear. However, these artifacts certainly provide evidence of an emerging agricultural culture.

Archaeological, archaeobotanical, and archaeozoological data, combined with folk narratives, provide a foundation for concluding that early agricultural culture in the Armenian Highlands originated in prehistoric times, at least by the 9th-7th millennia BCE. During this period, numerous Neolithic settlements were established along mountain rivers and streams. Among the most prominent is the renowned site of Çayönü Tepesi, located in the Kharpert-Malatya valley in the southern Armenian Highlands.

Neolithic sites were also established in the fertile valleys of the Araxes River's left-bank tributaries (Paleo-Kasakh), including Aratashen, Masis Blur, and Adablur, as well as in the foothill riverine zones of Aragatsotn (Akhtamir). The ancient inhabitants of these settlements practiced a sedentary lifestyle, engaging in cereal cultivation and animal husbandry, primarily breeding domesticated small ruminants—goats and sheep.

Over time, stone tool manufacturing techniques improved—sawing, drilling, flaking, bifacial shaping, and polishing were developed. Tool typology became more diverse. The economy utilized stone axes, adzes, hammers, awls, scrapers, serrated saws, composite sickle inserts, macroliths (large knife-like blades), and microliths (triangular and tabular

inserts measuring only a few centimeters), exemplified by finds from the open-air workshop sites of Mount Artin and Karkar.

The widespread use of axes made from hard stone types—basalt, nephrite, marble, limestone, and granite—serving as both tools and weapons, significantly advanced woodworking. Felled tree trunks were used to construct ceilings and coverings, as well as to build rafts and dugout canoes.

Bone craftsmanship flourished extensively. Tools and implements—awls, needles, spoons, harpoons, arrowheads, and chisels—were fashioned from animal bones and antlers (Aratashen, Barozh) (HZhP 1 1971: 100-103). During this period, the first examples of metallurgy also emerged. At the settlement of Çayönü Tepesi, situated in the foothills of the Armenian Taurus, archaeologists discovered some of the Ancient Near East's oldest copper ornaments—beads, needles, clasps, hooks, and bracelets—produced by cold-hammering native copper from the Arghana mine. Additional finds include leaf-shaped spearheads, obsidian blade tools, grinding stones, mortars, stone bowls, and arrow-shaft straighteners (Lamberg-Karlovsky & Sabloff 1992: 66; Badalyan et al. 2007: 52-53).

2.2 APPLIED ART OF THE NEOLITHIC PERIOD IN ARMENIA

As noted, engagement in animal husbandry and agriculture ensured stable and abundant food supplies. This, in turn, enabled humanity to become relatively independent from nature's whims and "stomach" demands, allowing greater time for spiritual needs and the pursuit of beauty and comfort in daily life.

The Neolithic Revolution generated a fundamental transformation in human worldview and psychology, which found immediate expression in religious and mythological concepts, and, consequently, in art. The new lifestyle, substantially influencing human consciousness, provided the foundation for transforming archaic motifs of world perception in the artistic realm. Nevertheless, primordial

enduring traditions—the tripartite vertical structure of underworld, earth, and sky; the cyclical alternation of life and death in the cosmic sphere; and the eternal circuit of humankind—remained dominant (Demirkhanyan & Frolov 1985: 96).

During the 8th-6th millennia BCE, numerous branches of craftsmanship and decorative-applied arts emerged. Even the utilitarian tools of the Neolithic period—particularly stone hammers and axes, obsidian cores (nuclei)—were manufactured with utmost care, featuring smoothly polished surfaces and beautiful, symmetrical forms that still captivate viewers today. Not only the working edges but also the surfaces of tools were finished, attesting to humanity's steadily growing aesthetic perceptions and feelings toward beauty.

At the foundation of Neolithic applied art's ornamentation lay the period's most valorized concept: fertility. This manifested through actions and symbols conditioning fertility, and themes of masculine-feminine principle interrelations, often presented with unconcealed nakedness and immediacy (Simonyan et al. 1996: 68-70; Simonyan 1998: 56-60).

Decorative-applied art is primarily represented by artistic pottery and bone tools bearing incised geometric patterns on their surfaces.

POTTERY PRODUCTION AND TECHNIQUES

Pottery vessels were primarily produced from coarse, chaff-tempered clay mixed with sand and crushed ceramic fragments. These feature thick walls, roughly finished surfaces, and high water absorption. Clay vessels are characterized by simple geometric forms—walls flaring upward (open forms) or tapering downward (closed forms), wide flat bases, rims decorated with dentate patterns, and thick-walled, asymmetric shapes.

Hand-molded clay vessels were fired on open hearths (Akhtamir), unequivocally attesting to pottery's primordial state. These were made through successive joining of “female” and “male” clay “slabs”, after which walls were plastered and smoothed both inside and out, then fired in hearths.

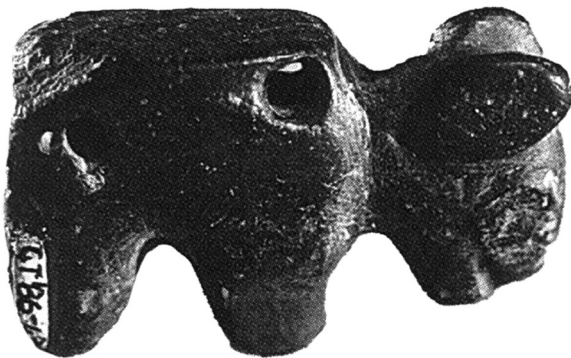
Another pottery-making method was also employed: pits corresponding to vessel shapes were dug into the ground and lined with clay. Fire was then lit inside to strengthen the walls. Afterward, the pit was widened, the semi-finished product removed, the outer wall plastered and smoothed, then refired in the hearth.

Shallow bowls and troughs intended for dough-kneading occupy a distinctive place in Neolithic pottery production. The ancient pottery examples discovered in Akhtamir settlement's Neolithic horizon—thick-walled, coarsely finished, and made from chaff-tempered clay—undoubtedly represent household production. With exceptional antiquity, they present the fertility concept through sculptures symbolizing masculine and feminine principles. These pottery examples, with their crude finish and primordial immediacy, along with their ornamentation, bear the imprint of the inhabitants' thought patterns and themes familiar and meaningful to them.

During the Neolithic's developed phase, fine pottery vessels also emerged, decorated through incising, punctation, and painting techniques. Particularly impressive are the polychrome ceramic vessels.

REGIONAL CONNECTIONS AND CULTURAL EXCHANGE

The Neolithic sites of the Armenian Highlands share certain commonalities with Neolithic settlements in Cilicia, Assyria, and Phoenicia. According to Harutyun Martirosyan, Mashtots Blur and Kghzyak Blur share features with the lower strata of Mersin and Yamuk Tepe (radiocarbon-dated to the first half of the 7th millennium BCE), while Terter Valley and Sev Blur 1 show parallels with Çatalhöyük (radiocarbon-dated to 6500 BCE), Hacilar, Kızılkaya, Hassuna, and Qal'at Jarmo (radiocarbon-dated to 5,500 BCE) (HZhP 1 1971: 36-41). Akhtamir pottery, in form and ornamentation, relates to ceramic vessels discovered at North Caucasian sites—Daghestan and Georgia (Anaseuli) (Simonyan 1998: 57). These commonalities attest that the



Armenian Highlands constituted one of the Ancient Near East's early agricultural cultural centers and bridged the south with the north.

EMERGENCE OF TERRACOTTA FIGURATIVE ART



During the Neolithic period, a new artistic branch emerged: primitive terracotta plastic art. In Greater Armenia's Tsopk province, in the Eastern Taurus foothills, 40 km northwest of Diyarbakır, lies the Çayönü Tepesi settlement. From the lower, Pre-Pottery Neolithic horizon (7,250-6,600 BCE), terracotta figurines have been discovered depicting women, rams, bears with human heads, and miniature house models (Braidwood et al. 1974: 568-572; Matyushin 1996).

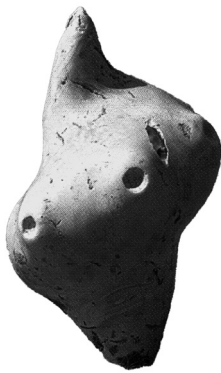
Among sites studied within the "Hasanlu" project is the Hajji Firuz settlement (Voigt 1983). Here yellow burnished pottery predominated, surfaces sometimes covered with red slip. Simple geometric elements—primarily triangles—were painted on yellow surfaces with red or brown pigments. According to Vadim Masson, Hajji Firuz's early agricultural culture reflects "Zagrosian" cultural traditions. Simultaneously, the pottery forms and decorative patterns, particularly distinctive trays, clearly show Hassunian cultural influence. At Hajji Firuz, a schematic clay female figurine was discovered with a wide, conical base, perhaps symbolizing the woman's hips and upright position (Masson 1989: 119).

2.3 ARCHITECTURE OF THE ARMENIAN HIGHLANDS AND ADJACENT REGIONS DURING THE NEOLITHIC PERIOD

The previously accepted view held that during 7500-6000 BCE, the Ararat Plain was marshland with a humid climate unfavorable to human health, resulting in habitation concentrated primarily in nearby foothill zones and at elevated locations. However, recent archaeological investigations demonstrate that during the Neolithic, settlements were established not only in the Republic of Armenia's foothill

regions—Barozh, Zaghaner, Nerkin Sasnashen, and Akhtamir’s lower stratum (Aragatsotn Province)—but also in lowland areas including Kghzyak Blur, Mashtots Blur, Aratashen, Terter Valley, Aghvesi Bner, Masis Blur, and Sev Blur (Ararat Plain), as well as mountainous regions like Karkar (Syunik Province) (Badalyan et al. 2005: 34-41).

Early agricultural settlements still occupied small areas and consisted of several dozen adjacent dwellings. These were small structures measuring 2-4 square meters, with rectangular or circular floor plans, low, narrow doorways, constructed of stone and mudbrick, sometimes with clay-plastered walls and roofs woven from branches and reeds covered with clay. At their centers, hearths were fashioned from stones and mudbrick. Adjacent to dwellings were storage rooms containing above-ground clay-built silos and vessels for storing provisions.



In the northern regions of the Armenian Highlands (Barozh, Terter Valley, Shulaveris Gora, Toyre Tepe), houses had circular plans. At the same time, in the southern areas—Çayönü Tepesi (Tsopk)—they featured rectangular floor plans. In some instances, clay-plastered walls bearing traces of paint and murals are documented, evidencing humanity’s natural aspiration to make dwellings comfortable. Judging from dwelling sizes, we can conclude that nuclear families inhabited these houses, with settlement populations ranging from several dozen to several hundred individuals.

The open-air site of Karkar in the Sisian region, located approximately 3,000 meters above sea level, was among the period’s high-altitude station-workshops, serving as a seasonal station for obsidian tool production and possibly as a ritual site for *initiation* ceremonies. Rich obsidian sources and rock art exist nearby. The open-air station is partially covered by volcanic lava flow, crucial for dating purposes. According to radiocarbon analysis yielding a date of 6994±34 BP, this site contains both Pre-Pottery and Pottery Neolithic cultural layers, as well as subsequent periods. In the approximately 1-meter-thick stratigraphic section, accumulations of fist-sized river cobbles were discovered—stones placed in hearths that, after heating to incandescence, were transferred into food prepared in containers, transmitting their heat to cook the contents.

NEOLITHIC - CHALCOLITHIC ARCHITECTURE OF THE ARARAT PLAIN

At the sites of Aknashen, Aratashen, and Masis Blur in the Ararat Plain, remains of clay-built structures have been excavated. These feature circular floor plans with modest dimensions—only 2-3 meters in diameter. Houses were constructed using mudbrick or the wattle-and-daub technique (branch frameworks covered with clay plaster). Within houses and courtyards, small circular features—likely storage facilities of economic nature—have been documented.

Among significant finds are stamp seals, presumably used to mark containers filled with foodstuffs and cloth coverings of above-ground granary openings. These seals represent evidence of familial or clan property (Areshyan 2013: 20).

The Aratashen settlement, radiocarbon-dated to 6500-5500 BCE, contains four cultural horizons yielding clay-built structures and numerous bone and obsidian tools (Badalyan et al. 2004: 399-420).



Hajji Firuz. The Hajji Firuz tell settlement, dated to the second half of the 6th millennium BCE, lies on Lake Urmia's southern shore in the Solduz River valley. It comprises six construction horizons characterized by dense building. Mudbrick-built residential houses—small, single-room dwellings—had rectangular floor plans of 25-26 square meters (4×6.5m). Internally, houses showed careful finishing: living, kitchen, and storage areas were separated by partitions. Carefully leveled floors were covered with yellow clay layers,

often painted with red ochre, preserving mat impressions. For stability, lower portions of food storage jars were embedded in floors—a phenomenon preserved for millennia and also documented at Shengavit. Cultic and functional hearths were placed on raised platforms along walls, separated from storage areas by partitions (Masson 1989: 118-119)—likely to reduce fire risk, a phenomenon widespread in the ancient world. Roofs rested on mudbrick pilasters and wooden posts. Presumably, roofs were formed by placing branches on wall edges, covering them with reeds, and then plastering with

clay. According to excavation director Robert Dyson, roof surfaces were oiled for waterproofing. House walls were built from standard-sized mudbricks bonded with clay mortar, while courtyard fences were formed with mud plaster. Economic structures built outside residential dwellings served as granaries. Houses were separated by courtyards and narrow streets. Street and house floor levels were nearly identical, sometimes with single-step differences (HChP 1996: 22).

Yanik Tepe. On Lake Urmia's eastern shore are two tell-settlements, the smaller eastern one attributed to the Late Neolithic (6th millennium BCE by radiocarbon dating). The lower stratum revealed mudbrick houses with massive walls and rectangular floor plans. Floors were formed with thick gypsum layers painted with red ochre. House walls were also painted red internally. In floor plan and construction, these houses recall Hajji Firuz architecture (Barnay 1964: 55-57).

Çayönü Tepesi. In historical Armenia's Aghdznik province, Angeghakot district (present-day Diyarbakır province), on plains adjacent to the Armenian Taurus, along the Boğazçay mountain stream, 7 km southwest of copper-rich Arghana (now Ergani), near Hilar village (now Sesverenpınar, Armenian-populated before the 1915 Genocide), adjacent to distinctive limestone formations, lies one of the Ancient Near East's renowned sites—Çayönü Tepesi tell-settlement. Joint American-Turkish expeditions under Robert Braidwood and Halet Çambel conducted excavations here from 1963-1972 (Çambel & Braidwood 1980: 45-47).

The 3-hectare site comprises three construction horizons separated by sterile layers. The lower stratum belongs to the Pre-Pottery Neolithic, dated to the 8th millennium BCE, serving as the eponymous Çayönü archaeological culture. According to radiocarbon dating (7,250-6,750 BCE), the pottery-free lower stratum settlement persisted for approximately 500 years through five construction phases. The house foundations were stone-built, and the floors were plastered with smooth lime render layers painted pink and orange.

All sub-phases of the settlement's lower stratum featured agglomerative construction—combinations of four distinct building types (HChP 1996: 19). Despite individual characteristics, these structures shared common features:



1. Grid-plan structures: Walls were built from small-to-medium unworked stones bonded with clay mortar. The earliest structures had 35 square meter areas with 5×7m rectangular plans (seven excavated). Houses were internally divided by seven transverse partitions between longitudinal walls, separating internal surfaces into narrow sections, each approximately 1m wide. The suggestion that plank floors rested on “grid-like” foundations (HChP 1996: 19-20) seems unfounded, as such floor construction required advanced woodworking, which is unattested in this period and appears much later. We incline toward the view that such floor divisions are aimed at protecting stored grain from predators. The hypothesis of “grid-like” foundations as unique storage facilities seems plausible, as interpreted for wall groups arranged side-by-side between residential houses at Near and Central Asian Neolithic sites (HChP 1996: 20)¹⁰.

2. Large halls: Second-type structures are large rectangular halls with interior stone bench-walls, presumably supporting roof-bearing posts. Floors were formed with large, thin slabs placed on finished, adjoining vertical limestone slabs—a distinctive and labor-intensive technical innovation. Houses were quite large; one measures 9.5×7.5m. This was likely a communal or cultic structure serving as a community gathering place.

3. Cellular houses: Third-type houses also have rectangular plans. Mudbrick walls were raised on high stone foundations. Straight partitions divided houses into six or more nearly equal rectangular cells, earning the name “cellular house.” These differ from “grid-plan” structures in both building materials and longitudinal interior walls. Such structures are considered “granary-storehouses.” One third-type building at Çayönü yielded two terracotta models of flat-roofed two-story houses. Beam-like projections visible at the upper edges of the walls beneath flat roofs suggest Çayönü houses had beam-supported roofing.

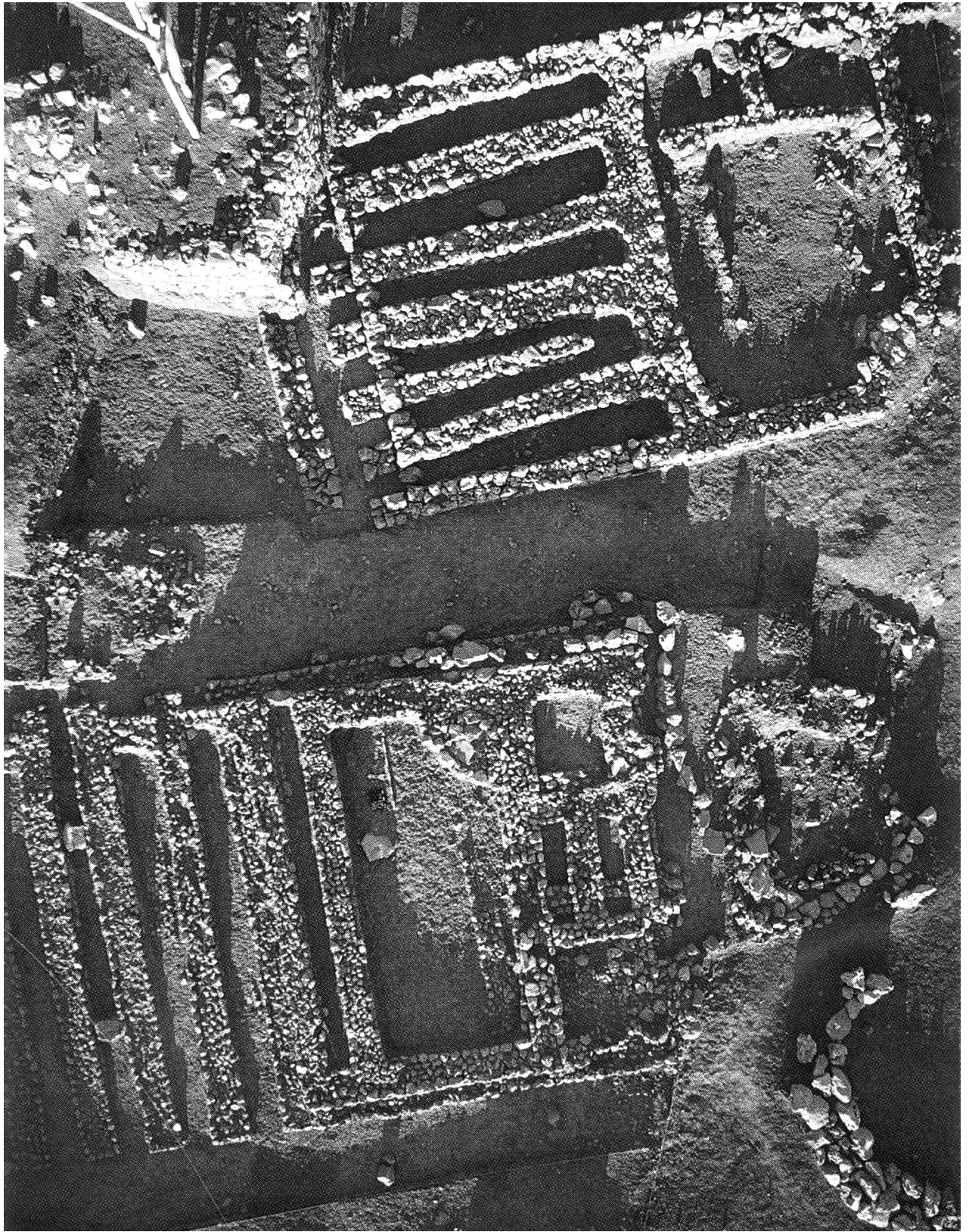
4. Freestanding halls: Fourth-type buildings feature rectangular plans with stone walls. One 5.10×9.0m large hall, unlike predecessors, lacked internal partitions. This freestanding structure was likely built by communal effort for religious and ritual needs. The terracotta two-story

¹⁰ It should be noted that the cultivation of wheat was of great importance in this region. Ten percent of the tools discovered during the excavations at Çayönü Tepesi were inserts for composite sickles, with cutting edges polished from reaping (see Masson 1989: 36).

building model presumably symbolized a cultic structure (Simonyan & Gnuni 1998: 82).

The diverse architectural solutions at Çayönü, presumably built in the same construction phase, attest to a functionally specialized architecture characteristic of differentiated societies (HChP 1996: 20). Buildings of different purposes were constructed according to function-derived requirements. Moreover, architectural solutions were dictated by pre-planned objectives. This suggests that during the Neolithic, the southern regions of the Armenian Highlands developed an architectural environment characterized by diverse structural combinations, typical of societies with complex social organization.





CHAPTER 3

THE ART OF THE CHALCOLITHIC PERIOD

(5,500-3,600 BCE)

3.1 ARMENIA IN THE CHALCOLITHIC PERIOD:

A Historical-Cultural Overview

Between 5,500 and 5,200 BCE, the Near East entered the Chalcolithic period—also known as the Copper-Stone Age or Eneolithic—which endured for approximately two millennia until 3,500 BCE. During the developed and late phases of the Chalcolithic period, the influences of northern Mesopotamian archaeological cultures, first the Ubaid and subsequently the Uruk, became increasingly evident throughout the Armenian Highlands and the Caucasus region (Museibli 2012: 31).

During the advanced phase of early agricultural culture in the Chalcolithic era, the indigenous tribes of the Armenian



Highlands had progressively refined their copper metallurgy—a technology that had emerged in Tsopk as early as the Neolithic period at Çayönü Tepesi. These ancient ancestors likely exported metal, and possibly finished products, to neighboring regions, particularly to metal-poor Mesopotamia. Despite significant advances in metallurgical production, stone tools continued to dominate the economic sphere.

According to Alexander Iessen's hypothesis, metallurgy originated in the Armenian Highlands and Asia Minor before spreading to Assyria, Syria, and Northern Mesopotamia (Iessen 1935: 33). Indeed, as previously noted, copper processing in the Armenian Highlands had been practiced from considerably earlier periods (Çayönü Tepesi, Aratashen), though technological advancement proceeded gradually through evolutionary development. Archaeological

excavations at various sites—including Shamiramalty, Teghut, Göy Tepe, and Nakhichevan's Mokhrablur I—have yielded copper awls, needles, fishhooks, and arrowheads (Torosyan 1976: 12, 60-66). Some of these artifacts were cast, while others were forged from native copper nuggets. Further evidence of copper production comes from ceramic molds and smelting furnaces discovered at Artsakh sites, notably at Beyuk Kesik and Pail 2 (Museibli 2012: 35).

Population density increased substantially compared to the Neolithic period, as evidenced by more than two hundred settlements distributed across various regions of the Armenian Highlands. During this era, settlements were established not only along minor tributaries but also on the banks of the region's major rivers—the Araxes, Kura, and Euphrates—as well as in the basins of Lakes Van and Urmia. Settlement concentration was particularly dense in the Ararat Plain, including the Paleokasagh settlements, Kghzyak Blur (Adablur), Teghut, Khatunarh, Mkhlu Tapan, Tsaghkunk, Aratashen, the lower strata (9-11) of Mokhrablur, Masis Blur, Akhtamir, Franganots, Artashat, and the lower stratum of Nakhichevan's Mokhrablur. Additional significant sites include Godedzor in Syunik; Berikledebi in the Kura basin; Shamiramalty (Tilki Tepe) in the Van Lake basin; Hindzor, Arguman, Kyuluk, and Hekimkhan in the Kharberd Plain; Balun, Toyre Tepe, Göy Tepe, and Leyla Tepe in the Mil-Karabakh Plain; Baba Dervish in the Aghstev Valley; Gareli on the southeastern foothills of the Greater Caucasus range; and Göy Tepe, Pijili Tepe, and Tepe Gavra in the Urmia Lake basin (Korfman 1982: 11-15; Torosyan 1976: 11-16; Museibli 2012: 32).

Agriculture continued to maintain its dominant position in the Chalcolithic economy. Agricultural practices now incorporated draft animal power and mixed crop cultivation, which enabled the restoration of depleted soil fertility. Communities raised both small and large horned livestock. The domestic animal repertoire remained essentially unchanged from the previous period, comprising dogs, cattle, pigs, goats, sheep, and possibly horses. The Chalcolithic period witnessed a notable increase in large horned livestock populations. Fishing became widespread, as evidenced at Teghut, Nakhichevan's Mokhrablur, Baba Dervish, and other sites. The textile

industry flourished, as indicated by clay and bone spindle whorls, bone awls, needles, perforators, and decorative pins discovered at virtually all settlement sites. Basketry and mat-weaving were also prevalent crafts.

Analysis of architecture and material culture suggests uneven development among tribes inhabiting different regions of the Armenian Highlands. While the southern and central regions had entered the Chalcolithic period, northern areas continued to maintain Neolithic traditions (HCP 1996: 25).

Obsidian constituted the primary export commodity and exchange medium. This irreplaceable raw material for tool and weapon production reached the most distant regions of the Near East through chain-like trade networks, extending as far as Egypt and the Don basin (Kushnareva 1993: 205-206). Obsidian exports generated substantial income for the indigenous tribes of the Armenian Highlands. However, both the Neolithic and Chalcolithic periods were characterized by simple economic forms typical of prehistoric social organization, tribal relationships, and the absence of class divisions and state formations.

In agriculture, communities traditionally continued using bone and stone hoes, sickles with obsidian and flint inserts, basalt querns, grinders, mortars, and pestles. Hard stone hammers, axes, flint and obsidian cutters, knife-like blades, and borers found widespread application. Cores were prismatic in form. Blades struck from these cores were fashioned into spear and arrow points, with some edges remaining unworked and others exhibiting unifacial or bifacial fine retouch.

The pottery sphere witnessed the emergence of so-called "textile" ceramics. Vessel surfaces, both interior and exterior, preserved impressions of vegetal textiles. This distinctive pottery was produced by covering sand-filled bags with clay layers from the outside, sun-drying them, emptying the sand, and firing the vessels over open flames (Torosyan 1976: 68-69, 94-100).

During the terminal phase of the Neolithic period (mid-6th millennium BCE), the Shulaveri-Shomutepe archaeological culture emerged in the northern regions of the Armenian

Highlands, particularly in the middle Kura River basin and the lower valleys of its right-bank tributaries—the Khram, Debed, and Aghstev rivers (6th-5th millennia BCE). This culture differed substantially in numerous characteristics from the material culture and architectural traditions of the southern Armenian Highland regions, particularly the Kharberd Plain and the Van and Urmia lake basins (HCP I 1996: 22).

The most thoroughly investigated sites of the Shulaveri-Shomutepe culture include Shulaveris Gora, Imiris Gora, Arukhlo I, and Khramis Didigora in modern Georgia, as well as Shomu Tepe, Toyre Tepe, and Gargalar Tepe in contemporary Azerbaijan. Chronologically, these correspond to sites in the Ararat Plain (the upper stratum of Aratashen, Teghut, Khatunarh, and Akhtamir), Vayots Dzor (Areni-1), and Sisian (Godedzor).

“During the second half of the 6th millennium and first half of the 5th millennium BCE, substantial portions of the Armenian Highlands, particularly the southwestern regions, fell within the sphere of influence of the North Mesopotamian Halaf archaeological culture. Subsequently, during the second half of the 5th millennium BCE, a hybrid complex of Halafian and North Ubaidian painted pottery spread throughout Armenia” (HCP I 1996: 25).

Common elements existed between Armenia and the Ubaid, Hassuna, and Halaf cultures of Northern or Armenian Mesopotamia, reflected not only in worldviews but also in burial customs, architectural forms, tool typologies, ceramic vessel forms, decorative patterns, and production technologies (Torosyan 1976: 120-125). Despite these commonalities, Armenian Chalcolithic finds exhibit significant differences conditioned by ethno-cultural and chronological particularities.

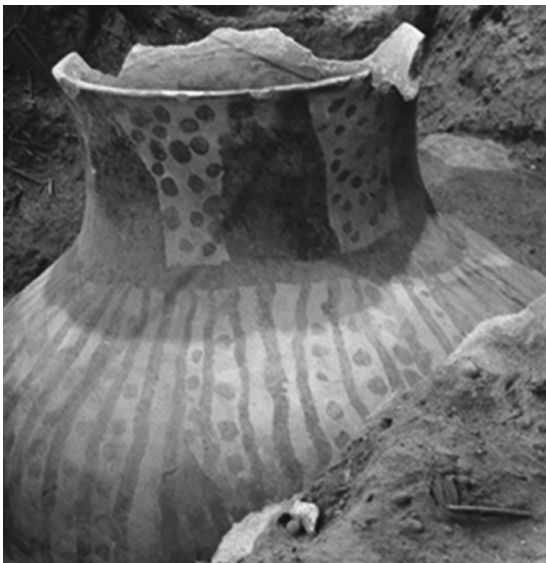
The Late Chalcolithic witnessed the emergence of the first symbols of authority: pear-shaped or round mace-heads with transverse perforations, as well as polished stone tools and weapons. We propose that these artifacts belonged to pastoral leaders who, as they ascended the social hierarchy, became leaders of tribal confederations.

Despite economic development and the widespread adoption of more advanced subsistence methods, infant mortality

remained exceptionally high. At the Galayeri settlement, for instance, limited exploratory excavations revealed twenty burials of newborns interred in burial jars (Museibli 2012: 31).

3.2 APPLIED ARTS OF THE CHALCOLITHIC PERIOD IN ARMENIA

The utilitarian pottery vessels for everyday kitchen use preserved Neolithic ceramic traditions—characterized by thick walls, coarse finishing, and reddish-brown surfaces — though examples of black-burnished pottery also appear in the archaeological record.



Pottery production demonstrated remarkable continuity and conservatism. For centuries, virtually identical vessel types were manufactured with minimal substantive modifications. Cylindrical vessels, double-mouthed jars, and other ceramic forms reveal typological affinities with Northern Mesopotamian pottery traditions. Contrary to certain archaeological assertions (Museibli 2012: 34), we can confirm that all locally produced vessels from the Armenian Highland's Chalcolithic period were exclusively hand-formed. The potter's wheel was not employed in ceramic production during either the Chalcolithic or Bronze Age periods in Armenia, possibly due to ideological principles (Simonyan 2016: 222-228).

In marked contrast to utilitarian pottery, the so-called ceremonial painted fine-ware vessels exhibited sophisticated artistic expression and rhythmic decorative patterns. The ceramic sphere witnessed substantial transformations. On the red-slipped surfaces of various-sized pitchers, jars, bowls, goblets, and other vessels, artisans applied geometric designs using brushes with red, brown, and black pigments before firing. These designs included horizontal and vertical lines, wave patterns, zigzags, dots, circles, chevrons, and rhomboids filled with cross-hatched patterns and other elementary motifs. The decorative schemes were executed following principles of



symmetry and rhythmic repetition, likely imbued with ritual-magical significance.

Throughout the entire Armenian Highland region—from the Euphrates and Tigris river basins at Chalcolithic sites such as Girikihacıyan (Diyarbakır Plain), Tülin Tepe (Kharberd Valley), and Shamiramalty (Van Lake basin), to the Araxes River basin sites including Nakhichevan's Mokhrablur I, Aratashen, Teghut, Akhtamir, Areni, Godedzor, Shengavit, Masis Blur, Khatunarh, and extending to the Mil-Karabakh Plain monuments reaching as far as Dagestan—examples of Halafian and Hassuna painted pottery have been documented (Kushnareva 1993: 206-207). The decorative patterns on these vessels literally replicate the painted designs of Northern Mesopotamian Halafian, Hassuna, and Ubaid cultural ceramics. Alongside these imports, locally produced coarse utilitarian wares continued to be used at these sites.

Painted jars characteristic of Halafian culture but of local manufacture were discovered in the territory of Areni village, on the right bank of the Arpa River, in the cave known as "Trchuneri" (Birds' Cave), located on the right side of the road leading to Noravank (Areshyan et al. 2012: 115-130).

Excavations conducted in 2005 at the Godedzor settlement in Syunik Province yielded numerous painted pottery sherds of the Ubaid culture, widely distributed throughout Northern Mesopotamia. These fine-ware vessels—cream-colored or light gray, excellently fired—featured surfaces decorated with vegetal and geometric designs, along with stylized animal figures rendered in black and dark brown pigments. Petrographic elemental analysis confirms that these vessels were imported from the Urmia Lake basin. These discoveries attest to the close interconnections between the Armenian Highlands and Northern Mesopotamia during the Chalcolithic period.

A prevailing hypothesis suggests that during those distant times, people ascended with their flocks to the lush alpine pastures of the Syunik mountains during summer months, then descended before winter, traveling hundreds of

kilometers with their herds to winter in the warm valleys of the Urmia Lake basin. Faunal osteological analyses support this conclusion. German archaeozoologist Hans-Peter Uerpmann, after detailed analysis of the substantial bone assemblages from Godedzor, documented the absence of lamb and calf bones. Based on these observations, he concluded that lambs and calves were born in March-April in the Urmia Lake basin, then, after maturing, were driven up to the Syunik mountains (Chataigner et al. 2010: 377-394).



For the bearers of Ubaid culture inhabiting the Kaputan Lake basin, Syunik was attractive not only for its alpine meadows, cool summer climate, and sweet waters but also for its rich obsidian deposits. The Godedzor site functioned as a crucial waystation and exchange center for mobile pastoralists. Here, obsidian was accumulated and “marketed,” brought from open-pit sources located within one or two days’ walking distance (Areshyan 2013: 22). We propose that the inexhaustible reserves of “Shushasar,” located approximately 25 kilometers from Godedzor as the crow flies, constituted the primary source. Combined archaeozoological and archaeological observations provide the foundation for such compelling conclusions.

Thus, virtually the entire territory of the Armenian Highlands during the 6th-4th millennia BCE was incorporated into the Halaf-Hassuna cultural sphere, conventionally recognized as a pre-civilization. These sites have also yielded terracotta figurines (Torosyan 1976: 120-125).

3.3 SCULPTURE OF THE ARMENIAN HIGHLANDS DURING THE CHALCOLITHIC PERIOD

The realm of prehistoric art constitutes a crucial primary source for reconstructing ancient historical events. Anthropomorphic and zoomorphic figurine sculpture represents a distinct and unique domain within the arts—particularly small-scale plastic arts—whose study can contribute to revealing the mythological perceptions,

ethnocultural characteristics, and interrelationships among the tribes and peoples of the region.

Art-historical analyses of small-scale plastic art specimens from the Armenian Highlands (Figure 1) provide an essential foundation for deciphering the distinctive features of our distant ancestors' spiritual culture, their worldviews, religious concepts, and rituals. It is also necessary to consider that primitive societies at the same developmental level, which lived and created at considerable distances from one another, could possess standard cultural features and shared forms and motifs in applied arts (Antonova & Esayan 1988: 219, 221).



Furthermore, it must be recognized that the bearers of specific cultures borrowed from others—particularly from more advanced ones—what resonated with them spiritually, what shared commonalities in mentality and imaginative imagery with earlier, traditional cultures (Veselovsky, 1889, p. 115). Consequently, it is often difficult to determine whether an innovation represents borrowing from a neighboring culture or results from the development of local, traditional elements. Therefore, borrowings of culture-creating forms and ornamental elements must be examined not in isolation from innovations, but from the perspective of dynamic development (Antonova & Esayan 1988: 221).

The art of anthropomorphic figurines emerged as early as the Upper Paleolithic period, approximately 25,000-30,000 years ago. At the Dolní Věstonice site in the Czech Republic, both carefully crafted and carelessly fashioned figurines have been discovered, hidden in pits near hearths (Bibikov 1953; Abramov 1966). However, the art of anthropomorphic small-scale sculpture achieved widespread distribution primarily during the early agricultural cultures phase, encompassing the vast territory of the Old World and becoming one of the most important domains of art (Antonova 1977).

In the early phase of small-scale plastic arts of the Near Eastern early agricultural cultures (Neolithic-Chalcolithic), the art of seated female figurines executed in naturalistic style predominated. These have been discovered at Jarmo; the Konya Plain; Mesopotamian Hassuna, Samarra, and Halaf cultures; Turkmenistan's Anau and Namazga I-III culture settlements (Antonova & Esayan 1988: 226); as well as from



settlements and burial sites of early cultures in Iran and India (Masson & Sarianidi 1973).

In the region north of the Araxes River, particularly in the historical Armenian lands of Utik and Gugark, the tradition of creating terracotta anthropomorphic figurines began in the early agricultural period (first half of the 6th-4th millennia BCE). These have been discovered primarily in the territory of modern Georgia, in the right-bank valley of the Kura River at Khramis Didigorai, Imiris Gora, Shulaveri Gora, Shomu Tepe, and Galgalar Tepe; as well as in the Republic of Armenia at Kghzyak Blur and Teghut on the Ararat Plain; and in the Armenian Highlands' Mesopotamian region—specifically at Norshen Tepe and Tyulin Tepe settlements discovered during investigation of the territory of the massive artificial Keban (Armenian: Kapan) reservoir constructed east of Elazığ in the middle Euphrates basin (Esayan 1980; Eneolithic of the USSR 1982: 113-115, Table LX; Kushnareva 1993: 36-43; Esayan 2002: 183-193).

The terracotta stylized female figurine discovered at Shulaveri Gora lacks arms and a head. Its short, cylindrical body terminates in emphasized hips from which wide-splayed, voluminous thighs emerge. From the upper edge of the torso



to the navel, downward-pointing angles are incised, nested within each other with sharp vertices, which most likely symbolized grain or multi-strand necklaces (fig. 2). According to Karine Kushnareva and Taniel Chubinishvili, these lines symbolized the Tree of Life (Kushnareva & Chubinishvili 1970: 28). Eight horizontal lines appear on the voluminous thighs (Glonti et al. 1975: 95). Vadim Masson interprets similar thigh bands adorning terracotta figurines from Central Asia as symbols of modesty. In our view, they may symbolize the number of children a woman has borne.

In the mixed cultural horizon at Imiris Gora, fragments of two schematically

modeled terracotta female figurines with cylindrical bodies and extended, tightly pressed legs have been discovered. Their heads are intentionally broken. One figurine bears linear ornamentation (Glonti et al. 1975: 94).

From the upper layer of the completely excavated Galgalar Tepe settlement, a terracotta female figurine with a broken head was recovered (Arazova et al. 1972: 479-480). This semi-recumbent figure, with a narrow torso, emphasized hips, voluminous thighs, and joined legs, represents a female form saturated with symbols of femininity. Only one breast is preserved. The entire body, especially the legs, is covered with densely arranged punctate dots (fig. 3). Typologically, this sculpture relates to the stylized terracotta female figurines from Khramis Didigorai and contemporary specimens from the Near East and Central Asia.

The only large collection of clay plastic art from the South Caucasus known to date—more than forty female figures—was discovered at the Khramis Didigorai settlement in the Marneuli district of Georgia, in the middle Kura River valley (Glonti, Javakhishvili, & Kiguradze, 1975). All figurines are made of raw, unfired clay, resulting in their survival in significantly damaged condition. Seventeen were discovered in a room with ritual hearths, together with round and egg-shaped “tablets” made of raw clay (Glonti et al. 1975: 94).

The reconstructed figures represent naked women seated or semi-recumbent with raised knees and legs extended forward. The heads of these 3-6 cm figurines are represented as protrusions. One possesses an articulated chin, nose, ears, and eyes formed by depressions (fig. 4).

Most figurines lack arms. The small-scale sculptures feature emphasized hips and accentuated signs of femininity. Several reconstructed figurines are carefully modeled representations of women with voluminous breasts, bent and tightly pressed legs, and even with modeling of heels. These expressive small-scale sculptures embody the desirable bodies of women with voluptuous physiques ready for childbirth. The ancient sculptor’s aspiration to incorporate the concept of softness has been crowned with success. These terracotta figurines, executed in a volumetric-spatial style, are characterized by primitive naturalism and immediacy. Alongside naturalistic

figurines, schematic female figurines have been discovered with legs extended forward and joined together, while their heads are formed as conical protrusions.

The modeling of naked female figurines discovered in the Kura basin, characterized by a semi-seated, obliquely cut position in the lower pelvic area, may have emerged as a distinctive style of artistic thinking as early as the Upper Paleolithic (Demirkhanyan & Frolov 1985: 76).

From the Arukhlo I settlement of the early agricultural phase on the right bank of the Kura River, two expressive male mask sculptures fashioned from small, egg-shaped river stones have been discovered. Unlike female figures, men's heads were sculpted with detailed facial features using chiseling and engraving techniques (Kushnareva & Chubinishvili 1970: 25-26, 28, fig. 6).

One face, formed using the chiseling technique, has a wedge-shaped head with lines on the forehead symbolizing wrinkles. The eye sockets are engraved with elongated horizontal lines, while the nose and mouth are rendered with short, oblique strokes bearing traces of red pigment. The sculpture reproduces the image of a gaunt, cruel person with terrifying features (fig. 8).

The other sculpture represents a plump, benevolent, smiling face with an open, seemingly laughing mouth and smiling eyes. The nostrils are engraved as depressions on the prominent nose, with lines indicating cheek wrinkles. Above the eyes on the forehead is a deep-relief ring, perhaps symbolizing a headdress (fig. 9). It could simultaneously have served as a loop for suspending the figurine-amulet. The style of distinguishing schematic, primitive figurine heads with horizontal, crescent-shaped loops was characteristic of idols from both the Upper Paleolithic and the Neolithic and Early Bronze Age (Demirkhanyan & Frolov 1985: 78).

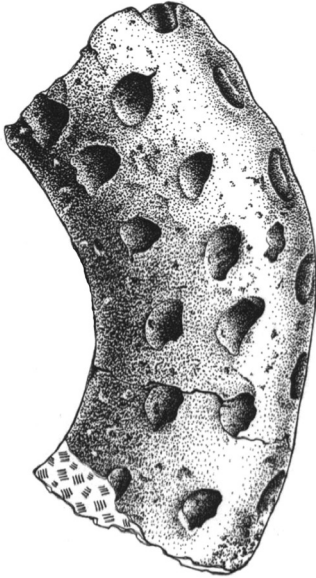
Additional Face Sculpture from Kghzyak Blur: In Sandro Sardaryan's posthumously published work, a drawing of a terracotta human face discovered at Kghzyak Blur is presented. The author, without any substantiation, considers it a woman's head and dates it to the Neolithic period (Sardaryan 2004: 157, pl. XXIV1). The face sculpture features

voluminous, wave-decorated hair, a narrow forehead, and an oval face with a straight relief nose that descends from the forehead to the chin, with nostrils depicted as depressions at the tip. Below the nose, the mouth is shown as a downward-curving crack, with lips that appear tightly pressed. The eyes are formed by rectangular obsidian pieces embedded in the clay. The impression is that the face sculpture scrutinizes the viewer with a fixed gaze. Its expressiveness and perfect crafting technique distinguish this canonical face sculpture. If it indeed belongs to the Neolithic period, it represents the earliest figurine with inlaid obsidian eyes. According to beliefs prevalent among Armenia's ancient inhabitants, obsidian possessed apotropaic properties (Simonyan 1988: 79-81). This sculpture documents the earliest example of depicting eyes using magically endowed obsidian, lending particular expressiveness to the face sculpture.

Questioned Sculpture from Sev Blur 2: A distinctive sculpture was discovered in the Neolithic horizon of Sev Blur 2 (Sardaryan 2004: 158, pl. XXIV2). Judging from the published drawing, this sculpture, with its smoothly polished cylindrical torso, differs substantially in manufacturing technique, stylistic features, and structure from all known Neolithic-Early Bronze Age sculptures. The published image displays a composition characteristic of sculpture in the round. The spherical head with headpiece has a face bordered by an incised circle on the frontal side, bearing circular eyes formed as cup-like depressions on either side of the relief nose. The nose is bordered on both sides by incised lines ascending the forehead to the circle bordering the face. A horizontal crack with expressed lips and a chin represents the mouth. Below the disproportionately long, thick neck is depicted a relief "armor" in triangular form with upward-pointing tip protecting the chest, from which circular relief protrusions with flat-cut surfaces symbolizing breasts emerge on both sides. The arms, touching the body and bent at right angles at the elbows, merge on the belly, creating the impression of a relief belt. Below this is depicted the phallus, flat-cut on the frontal part. The created protrusion, as with the breasts, gives the impression of a straight-cut tree branch. The figurine's lower portion is broken, but it clearly depicts a standing man. The authenticity of this figurine, dated to the Neolithic-

Chalcolithic period, is exceedingly doubtful, as the sculpture's stylistic and morphological characteristics differ significantly from those characteristic of Near Eastern Neolithic-Chalcolithic sculptures.

Particularly intriguing are the mask sculptures discovered at the "Ghrer" cemetery field near Voskehat village in Aragatsotn Province—stone idols with drilled holes. From burial N32, as well as other burials, mask sculptures of human faces fashioned from stones have been recovered. Natural cavities on stone slabs were deepened to depict eyes, while the nose and mouth were represented through chiseling (fig. 10, 11).



From monuments along the middle Euphrates, two fragmentary female figurines were discovered on the floor of one of the houses at Tyulin Tepe, dated to the 5th-4th millennia BCE based on pottery found at the same level (Esin & Arsebuk 1974: 152). One figurine, with emphasized buttocks, is fashioned in a standing position; the other, seated. The latter displays emphasized elongation of the torso and asymmetry of body parts. According to the excavating archaeologists, these share commonalities with figurines from the Mesopotamian Halaf and Ubaid cultures.

Also attributed to the Chalcolithic phase is a small figurine discovered at Norshen Tepe depicting a seated woman in gray-cinnamon terracotta. Between the short, forward-extended legs is an engraved line. The arms are represented as short protrusions extended sideways, with the right one directed slightly upward (Hauptman 1976: tab. 48/6). In specimens of primitive art discovered from these monuments, the style characteristic of Halaf culture is attested not only in pottery decoration but also in small-scale plastic arts. Small terracotta figurines discovered at Tyulin Tepe and Norshen Tepe in the middle Euphrates basin are closely related to Hassuna and Halaf terracotta figurine art, attesting to the characteristic style of these Mesopotamian cultures not only in ceramic decoration but also in miniature sculpture.

According to Elena Antonova and Stepan Esayan, unlike the early agricultural cultures of the Near East, where coroplastic specimens were used during rituals, the unfired clay-molded figurines from Khramis Didigorai settlement were intended for simultaneous acts.

Animal figurines are also known from Chalcolithic monuments. At the Teghut settlement near Etchmiadzin, a terracotta animal figurine was discovered (Torosyan 1976: 59, 117), which can be considered a precursor to the terracotta figurines widely distributed in Armenia during the subsequent Early Bronze Age period. Also belonging to the Chalcolithic period is a ram sculpture carved from tuff discovered at Kghzyak Blur settlement, which reproduces the volumetric-spatial image of a heavy-headed, powerful male.

The surfaces of fragments of terracotta shield-shaped, mobile altars (also described as boat-shaped portable shrines) discovered at the Akhtamir city-site near Voskevaz village are covered with densely arranged depressions (fig. 13). These mobile altars are most likely ritual-cultic sacrificial objects used during ceremonies and libation rituals accompanied by fire and water. It can be assumed that the depressions on these artifacts' surfaces, created by the flickering of sacred fire flames, produced a play of light and shadow, giving the depression-decorated vessels the appearance of fairy-tale dragon-serpents (Simonyan 1998: 56-60).

CONCLUSIONS

The examined human and animal figurines of the Chalcolithic phase, executed in volumetric-spatial style, demonstrate a tendency toward revealing characters. According to Grigor Areshyan, Chalcolithic small-scale sculptures combine primitive naturalistic tendencies on one hand with technical imperfection on the other (Areshyan 1981: 88-97).

As a rule, in Chalcolithic female figurines, the naked body is emphasized, while in male sculptures, the facial features are highlighted, which conveyed people's individual characteristics and perhaps personality traits. The figurines discovered in the Armenian Highlands share certain commonalities in their modeling with anthropomorphic plastic art from other early agricultural cultures of the Ancient Near East. Throughout this vast region, both stylized and naturalistically fashioned female figures in seated or semi-recumbent positions with bent or extended legs have been documented (Eneolithic of the USSR 1982: 114). According to Elena Antonova, in the Ancient East, excluding

Anatolia, anthropomorphic plastic art originated from the Neolithic naturalistic style, then transitioned to the schematic style widely distributed during the Chalcolithic phase (Antonova 1977: 43).

Despite cultural commonalities with the Ancient East, during the Chalcolithic period in the northern regions of the Armenian Highlands and the South Caucasus, a distinctive, purely local style of anthropomorphic plastic art had formed (Eneolithic of the USSR 1982: 115).

Small-scale plastic art of the Chalcolithic phase is primarily represented by anthropomorphic figurines, predominantly featuring female clay-molded sculptures. These primarily depict naked women endowed with symbols of femininity and voluptuous body forms, modeled in seated or semi-recumbent positions. The figurines are executed in a naturalistic style with narrow waists, wide hips, voluminous thighs, and breasts. The legs are mainly in tightly pressed or semi-open positions.

One figurine appears bound with rope or perhaps adorned with three belts, the lowest covering the pudenda, symbolizing modesty (fig. 5). Densely arranged punctate depressions and lines on the bodies of individual figurines probably symbolize the concept of fertility. The horizontal lines on the thighs, which some scholars interpret as symbols of modesty, find their parallels particularly with small-scale plastic art discovered at the Anau and Altyn Tepe city-sites in the southern regions of Central Asia.

As a rule, the heads of Chalcolithic female figurines are represented as conical protrusions. However, in one example, perhaps a wig-wearing head is represented—with dyed, painted hair and arc-arranged dot ornamentation on the upper eyelids, which imparts a particular charm to the sculpture of the sideways-gazing woman (fig. 7).

Male sculptures are primarily fashioned from stone and include mask sculptures that represent their individual characteristics and personality traits. From burials distributed between Voskehat and Aghavnatun villages (fig. 10, 11), more than a dozen sculptures carved from flat stone slabs with drilled eyes have been discovered. Their direct connection

with burial sites as symbols of death provides grounds for concluding that they relate to beliefs about the afterworld.

In conclusion, we can note that specimens of Chalcolithic coroplastic art embodying women with wide hips, voluminous thighs, and luxurious breasts symbolize, on the one hand, the image of the fertile woman, while on the other hand, perhaps naturalistically reproducing our distant ancestral mothers. While sharing typological and modeling affinities with figurines discovered from other Ancient Eastern centers, the female sculptures from the Armenian Highlands and South Caucasus are characterized by distinctive fashioning that perhaps reflects ethnic characteristics and represents the most ancient portrayals of women who lived in the region.

3.4 ARCHITECTURE OF THE ARMENIAN HIGHLANDS DURING THE CHALCOLITHIC PERIOD

The transitional period from the Neolithic to the Bronze Age—the Chalcolithic—is represented in Armenia by modest artificial tell-settlements covering less than one hectare, primarily situated on fertile alluvial plains along rivers and streams. These settlements comprised several dozen small dwellings—semi-subterranean structures built with mud-brick and clay-plastered walls, occasionally featuring painted floors (Torosyan 1976: 23-43). Adjacent to these structures, grain storage pits were excavated, while cultic hearths were installed within the houses (Teghut, Mingechaur).

Chalcolithic settlements were typically constructed in clusters, separated by distances ranging from several hundred meters to several kilometers. This settlement patterning principle has been documented in the Mil-Karabakh Plain (Misrachay, Alkhan Tepe); the valley regions of Artsakh (Leyla Tepe, Abdalaziz Tepe, Chinar Tepe); the Gandzak-Ghazakh region (Beyuk Kesik 1-3, Pail 1-2, Selekhan, Agilidere, Sarnaghbyur/Soyuk Bulakh); the Kura River basin (Berikledebi, Gargalar Tepe, Marneuli, Shulaveris Gora, Arukhlo, Imiris Gora, Khramis Didigora); Nakhichevan (Kyul Tepe 1-2); and

the Ararat Plain (Masis Blur, Adablur, Teghut, Aratashen, Voskevaz, Voskehat, Lernamerdz, Aghavnatum), as well as at contemporary Maikop culture sites (Korenevsky 2003: 13, 73). We propose that this pattern was motivated by defensive considerations—the imperative of mutual assistance in times of danger.

Notably, contemporary Ubaid and Uruk culture settlements in Northern Mesopotamia, closely connected with the Armenian Highlands, were similarly modest in scale, with only exceptional central settlements occupying 10 hectares or more. The long-inhabited central proto-cities of Northern Mesopotamia (with cultural strata reaching 10 meters in thickness) were characterized by monumental architecture, particularly temple complexes. Monumental structures—ceremonial roads bordered by stone walls on both sides, extending up to 6 meters wide and stretching several kilometers; necropolises covering several hectares constructed with massive stones for venerated ancestors; cultic complexes including petroglyphs, sanctuaries, towers, and other monumental constructions—have also been discovered in the vast cemetery called “Ghrer”, extending across Armenia’s Aragatsotn and Armavir provinces, representing a classic example of Chalcolithic a sacred landscape.

The characteristic features of Armenia’s Chalcolithic settlements include:

- A) Multi-layered settlements with up to nine construction horizons, indicating prolonged human occupation at the same location;
- B) Residential houses grouped around central courtyards (the Imiris Gora courtyard measured 12 meters in diameter);
- C) Dense settlement layout with houses abutting one another;
- D) Residential complexes comprising houses, adjacent storage structures, and courtyards delineated by fences;
- E) Residential houses characterized by circular or oval floor plans measuring 0.5-5.0 meters in diameter. Straight walls were virtually absent in northern Armenia;
- F) The primary construction material was plano-convex mud-brick bonded with clay mortar;

- G) Houses externally resembled beehives or anthills. Structures with circular foundations had walls that gradually tapered upward, terminating in roof openings. This represents the earliest application of the false vault concept, achieved by laying each successive course of bricks 2-3 centimeters inward (corbelling) from the foundation upward;
- H) The roof opening solved problems of ventilation, access, and illumination;
- I) Some structures featured cylindrical compositions with straight-rising walls covered by conical roofs formed from branches;
- J) Buildings were primarily above-ground, slightly recessed into the earth;
- K) The lower courses of building foundations were externally reinforced with clay “pillows.” These presumably strengthened the structures and protected the walls from moisture. Such “pillows” also reinforced the circular room excavated in 2012 in square K:6 of the lower horizon at Shengavit settlement;
- L) Bricks were laid lengthwise, creating single-layer walls plastered with clay mortar inside and out. Wall thickness ranged from 20 to 35 centimeters;
- M) In Alexander Javakhishvili’s monograph on Chalcolithic-Early Bronze Age architecture, it is noted that stone and wood are absent from Transcaucasia’s earliest buildings, suggesting these necessary construction materials were unavailable in the formative environment of these cultures. Subsequently, when these cultures spread across larger territories, ancient traditions continued to be preserved. Exceptions include Imiris Gora and Shomu Tepe sites, where house roofs were formed with branch-woven structures. These were plastered with clay and supported on wooden posts (Javakhishvili 1973: 13-90; HCP I, 1996: 24-25). We consider this viewpoint unfounded, as the climate during the Chalcolithic period was warm and humid. Due to favorable climatic conditions, dense forests were widespread throughout the highlands.

At Chalcolithic and Early Bronze Age sites—in one of the courtyards at Khramis Didigora, at Shengavit, and at Yanik Tepe—rows of small pits were exposed, likely traces of thin poles that were fixed there. These likely represent courtyards with light coverings placed over wooden frameworks (Javakhishvili 1973: 60-67; Narimanov 1965: 46-47; Akhundov 1973: 12-13, fig. 5; Menabde et al. 1980: 19-34, pl. II, fig. 2).

Excavations in the northern regions of the Armenian Highlands have also revealed structures with rectangular floor plans and walls built of mud-brick at Teghut, Berikledébi, Leyla Tepe, Galayeri, and Beyuk Kesik (Torosyan 1976: 127; Glonti & Javakhishvili 1987: 85; Javakhishvili 1998; Aliev, Narimanov 2001: 10-14; Museibli 2012: 31-32).

In the Gandzak-Ghazakh region, primarily documented were above-ground or semi-subterranean light-frame dwellings with circular and oval floor plans, constructed from branches with clay-plastered walls (Müseyibli 2006: 12; Museibli 2007: 9- 11). At the Pail 2 settlement, dwellings with walls built from river cobbles were also documented (Müseyibli 2008; Museibli 2009b: 48-49; 2010: 208; 2012: 31-32).

TOMB STRUCTURE AND BURIAL PRACTICES

Human naturalistic beliefs and worldviews hold exceptional significance regarding concepts of death, the philosophy of “conquering” death, and the deeply rooted idea of careful treatment of corpses and protection from evil forces. These concepts formed the foundation for developing specific post-mortem ritual procedures for handling the deceased. During the Neolithic period, the prevailing belief held that ancestral spirits continued to live within the family and household environment after death. Since the body was considered the dwelling place of the soul, corpses were buried beneath dwelling floors. This burial practice persisted for millennia, traditionally continuing through the Chalcolithic period, and even in the advanced Ubaid and Uruk cultures of their time.

A new phase in human societal development can be identified in the burial of corpses outside settlements in specially designated areas. This belief system, which continues to

operate in burial practices among virtually all peoples worldwide, including the most advanced societies, allows us to conclude without exaggeration that the tradition of burying the dead in specially selected areas outside settlements represents one of humanity's most significant advances.

The practice of burying the deceased in cemeteries and necropolises not far from their places of residence predetermined the formation of complex burial rituals for handling corpses. Cultural scholars often perceive ethnic particularities in these rituals, as they are closely interwoven with people's traditions, religious concepts, worldviews, and beliefs, representing one of the most stable and resistant-to-change spheres of human life. There exists a viewpoint that tradition, as culture's most stable attribute, carries primarily ethnic significance (Bromley 1983: 12). From this follows that precise documentation and reconstruction of burial practices—the long-term preservation of traditional rites and their gradual transformation—can reflect both the autochthonous nature of inhabitants and, in cases of abrupt changes, ethnic transformations and migrations that have occurred.

Notably, at Tepe Gawra, one of the pivotal sites in Northern Mesopotamia, burials were documented within the settlement: men and women in tombs constructed from mud-brick, and children in ceramic vessels (Tobler 1950: 101-125; Peasnell 2002: 171-233). Considering Mesopotamia's crucial role as the locomotive of human societal development, it is logical to assume that the burial rites documented in Ubaid and Uruk cultures would also have spread throughout the Armenian Highlands, extending as far as the Caucasus.

Excavations at the “Ghṛer” cemetery from 2023-2025 revealed that by the Late Chalcolithic, the concept of a “city of the dead” had already formed in the Armenian Highlands. Community members were now buried outside settlements in specially designated, waterless, rocky areas unsuitable for agriculture, which became sacred spaces perpetuating the memory of venerated ancestors. Burials were performed on leveled, clay-plastered platforms on the ground surface. These were then bordered with unworked massive basalt stones. To protect bodies and burial offerings from scavenging

animals, they were covered with stone-earth fill. To protect the deceased from evil spirits, tombs were surrounded by irregular stone-built magic circles—cromlechs—and obsidian tools and fragments were scattered over the tombs. After completing burials, stone-earth burial mounds were raised above them. Near tombs of particularly distinguished individuals, petroglyphs were carved, and menhirs and tetraliths were erected. To perpetuate the memory of the dead and serve the gods of the afterlife, towers, sanctuaries, ceremonial roads 6 meters wide extending several kilometers, and other structures were built in the cemetery.

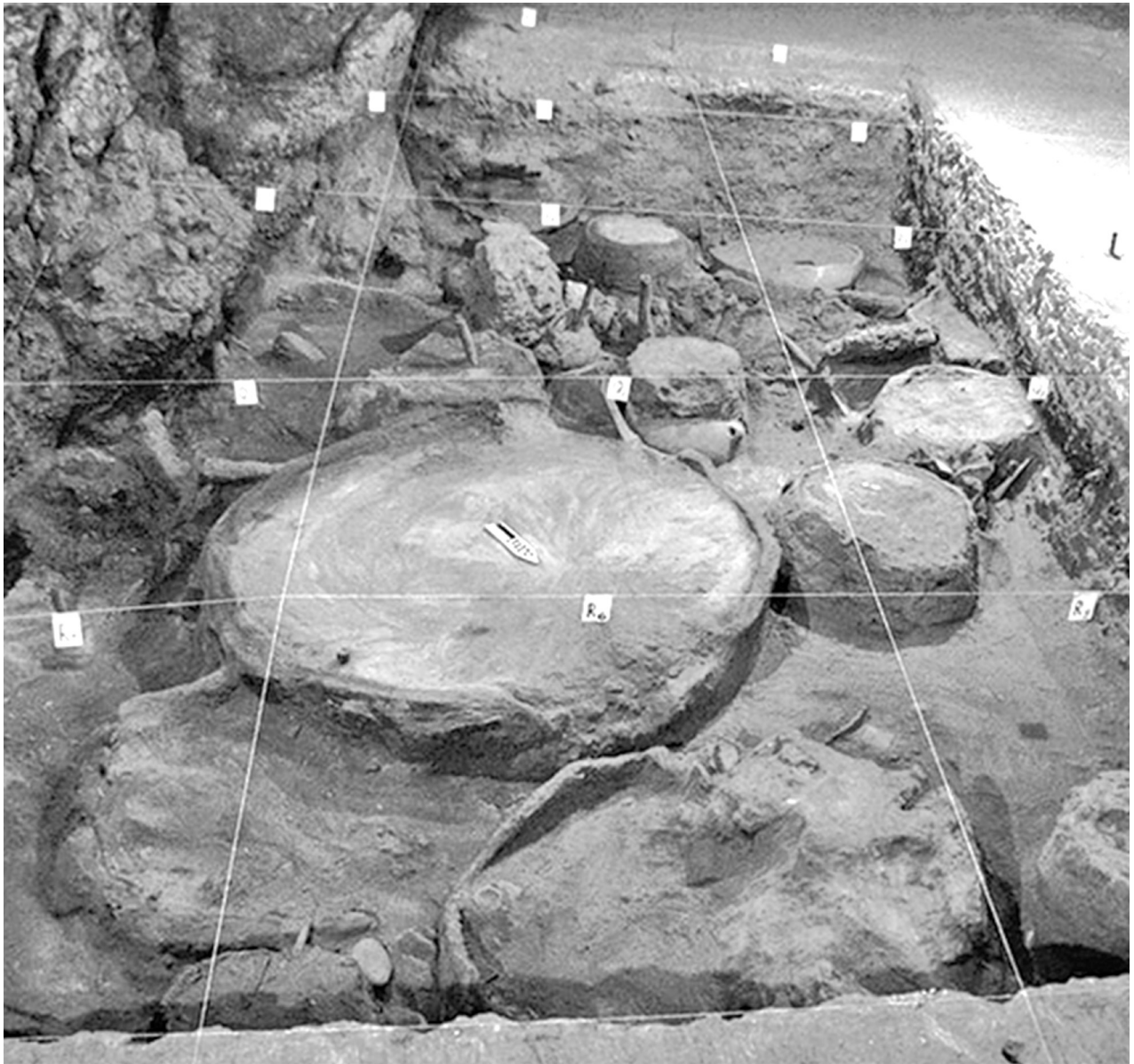
Individual Chalcolithic burial mounds have been excavated at limited sites: in 1990 at Seidli (Dostiyev et al. 1990: 25-27), 1995-1998 at Kavtiskhevi (Makharadze 2007), 2005 at Soyuk Bulakh (Museibli 2005: 135-138; 2009: 53-54). Our excavations revealed two Chalcolithic burial mounds at Nerkin Naver cemetery in 2023 and numerous tombs at “Ghṛer” cemetery in 2023-2024. The above-ground or semi-subterranean tombs at Soyuk Bulakh, featuring skeletons in contracted positions on the right and left sides, similar to those at Tepe Gawra, have walls constructed from mud-brick. Unlike Mesopotamian burials, these tombs are covered with burial mounds up to 1 meter high (Museibli 2012: 33).

Simultaneously, the practice of burial directly within settlements, continuing from the Neolithic period, was preserved, though now exclusively for infants. Thus, at the Galayeri settlement with its 4-meter-thick cultural layer, limited exploratory excavations revealed 20 burials of newborns interred in burial jars (Museibli 2012: 31). Before this, newborn burials in ceramic vessels had been documented at Berikledebi, Leyla Tepe (4 burials), and Chinar Tepe settlements (Aliev, Narimanov 2001: 17-18; Makharadze 2007; Glonti & Javakhishvili 1987: 85).

Remarkably, in Tomb 31 at “Ghṛer,” in the context of a simultaneous burial of more than 30 individuals, a newborn burial placed in a goblet was also discovered. Here, perhaps, the infant was buried with its mother. This represents a unique burial ritual phenomenon documented in the territory of the Republic of Armenia. Similar to “Ghṛer” cemetery, only one

burial of a newborn interred in a ceramic vessel was reported at the “Gandzher” Klady cemetery in the North Caucasus (Rezepkin 2000: 46). Another commonality exists between Armenia and the North Caucasus: in both regions, adult burials have not been discovered within settlements.

Generally, complete skeletons are rarely encountered in “Gh̄rer” tombs, except for Tomb 31. Here, as at Soyuk Bulakh, separate parts of human skeletons were documented in the tombs.



CHAPTER 4

THE ART OF THE SHENGAVIT CULTURE DURING THE EARLY BRONZE AGE

(3,500–2,400 BCE)



4.1 ARMENIA IN THE EARLY BRONZE AGE: HISTORICAL CONTEXT

The Early Bronze Age in the Ancient Near East witnessed the emergence of sophisticated economic systems and complex religious institutions. This period marked a fundamental transformation in social organization, characterized by the crystallization of distinct social strata—from exploited laborers to privileged elites—and the development of regulatory mechanisms, both secular and sacred, to mediate their inherent conflicts. Despite its imperfections, centralized authority gained widespread acceptance as an essential stabilizing force, capable of reconciling competing societal interests, suppressing internal discord, curtailing theft and violence, and establishing societal order.

Simultaneously, these nascent state structures functioned as defensive mechanisms against external threats. The earliest Mesopotamian written records reveal that fourth-millennium BCE state formations were conceived as divine endowments (History of the Ancient East 1983: 19). According to ancient mythology, kingship descended from heaven as a celestial gift to Eridu—Mesopotamia’s spiritual epicenter under the patronage of the deity Enki (Haya)—even before the Great Deluge (Kramer 1965: 122–126; Masson & Sarianidi 1973: 106). This theological conceptualization of political authority resonates in the writings of the Armenian historian Movses Khorenatsi: “Behold, now I rejoice with no small delight, that I have reached the time when from among the generations of our native ancestors the rank of kingship has been attained” (Movses Khorenatsi, Book I, chapter 1).

The intensification of agricultural production—particularly through the construction and continuous maintenance of irrigation infrastructure—alongside organized metallurgical

operations spanning from ore extraction to finished products, necessitated the mobilization of substantial labor forces under centralized direction and management (History of the Ancient East 1983: 158–169).

Collective labor enterprises stimulated human potential and entrepreneurial spirit, catalyzing advances in production methodologies and the systematic exploration of raw material sources. The accumulated productive knowledge and technological expertise led to the development of sophisticated tools, innovative technologies, and specialized craft traditions. The preservation and intergenerational transmission of these skills established the fundamental prerequisites for the development of writing systems and literacy.

These transformative processes precipitated an unprecedented expansion of productive capacity and necessitated the concentration of specialized craftsmen. Such dynamics facilitated the emergence of substantial settlements—proto-urban centers accommodating several thousand inhabitants, distinguished by monumental religious and civic architecture, including temples, palatial complexes, irrigation networks, and fortification systems. Around these central settlements evolved hierarchically structured networks of satellite communities (Kushnareva 1993: 265).

The sophisticated economic framework—encompassing advanced agriculture, pastoralism, and particularly metallurgy—enabled the production of innovative weaponry, implements, domestic articles, ornamental objects, and transportation technologies. These proto-urban settlements represented a qualitative leap in societal evolution, constituting a genuine revolution in human social organization throughout both the advanced centers of the Ancient Near East and the Armenian Highlands. They became nexuses of authority for priestly hierarchies, artisanal guilds, and merchant classes—craftsmen practicing identical trades congregated in specialized quarters, residing and working within demarcated precincts. Archaeological evidence from specific Armenian proto-urban sites reveals distinct quarters designated for metallurgists, stonemasons, and agricultural workers (Simonyan 2013: 13–14).

Master artisans satisfied the expanding requirements of ruling elites, administrative bureaucracies, religious institutions, and urban populations. Concurrently, their products entered systems of exchange and commerce. This economic sophistication effectively dismantled the traditional customs and social patterns of primitive society, establishing instead a stratified hierarchical structure.

The relatively egalitarian primitive communal organization fragmented into distinct social strata differentiated by wealth, status, and political influence. The productive capacity achieved during the Early Bronze Age created conditions in which individual workers could produce not merely subsistence-level goods but also significant surplus production. War captives were no longer eliminated as superfluous consumers but integrated into systems of coerced labor. Thus emerged the slave-based economic structures characteristic of Ancient Near Eastern societies. War captives were no longer eliminated as superfluous consumers but integrated into systems of coerced labor. Thus emerged the slave-based economic structures characteristic of Ancient Near Eastern societies.

Historical documentation indicates that Ancient Near Eastern societies gradually crystallized into three principal social categories: enslaved populations and their functional equivalents within forced labor systems; free producers, including small-scale cultivators and pastoralists; and ruling elites encompassing major landholders, palatial and administrative officials, military commanders, and religious authorities (Masson 1989: 62–67).

Throughout the Ancient Near East, commercial exchange gradually gave way to predatory expeditions aimed at forcibly acquiring essential raw materials and agricultural supplies. Alternatively, territories were incorporated into expanding state formations, culminating in vast imperial structures. These transformations established foundations for unprecedented development in traditional economic sectors and the emergence of innovative artistic traditions (History of the Ancient East 1983, pp. 19, 24).

Comparable developments characterized the Armenian Highlands during the late Early Bronze Age and the initial

Middle Bronze Age phases. By the mid-fourth millennium BCE, at the threshold of the Early Bronze Age, a distinctive and influential Shengavit cultural complex had coalesced within the Armenian Highlands and adjacent territories. At the transition between the fourth and third millennia BCE, this cultural sphere had expanded across approximately 1.5 million square kilometers, encompassing the entire Armenian Highlands, the South Caucasus (including modern Georgia and Azerbaijan), the central and northeastern Caucasus, Assyria, Palestine, the western and central Iranian Plateau, and eastern Anatolia (Munchaev 1975: 14; Kushnareva 1993: 54; National Atlas of Armenia 2008: 144; Simonyan 2013: 5).

This socio-cultural phenomenon appears in scholarly literature under various designations, most commonly as the Kura-Araxes or Shengavit cultures (Bayburtyan 2011 [1938]: 21–37; Kuftin 2012 [1944]; Munchaev 1975: 14–15). Sedentary lifestyles predominated, sustained by sophisticated agricultural and pastoral economies.

The Early Bronze Age Armenian Highlands experienced remarkable expansion in settlement density, craft specialization, artistic production, religious architecture, and the establishment of formal cemetery complexes. The substantial cultural deposits within Shengavit culture tell settlements, reaching depths of twenty meters at sites such as Mokhrablur in Nakhichevan and Norshen Tepe, demonstrate continuous and stable occupation. No other archaeological culture in ancient Armenia generated comparable stratigraphic accumulations within its settlements.

The millennium-long trajectory of Shengavit culture exhibits clear evolutionary patterns. The initial phase preserved early agricultural traditions, with rural communities organized around nuclear family units maintaining traditional social structures. The socio-economic and political transformations of the Middle and particularly Late Early Bronze Age, coupled with technological innovations derived from centuries of accumulated productive knowledge, catalyzed fundamental societal restructuring and advancement.

During the second and third phases of the Early Bronze Age, archaeological evidence from residential architecture indicates that patriarchal extended families constituted the primary

social units within communities. Material culture increasingly reflects the emergence of private property concepts (Kushnareva 1993: 266–272).

The terminal phase of Shengavit culture (2,700–2,500 BCE) exhibits multiple indicators of incipient civilization: pronounced social stratification, monumental architecture and artistic traditions, sophisticated religious systems, irrigation-based agriculture, comprehensive animal domestication encompassing virtually all major species, and advanced craft specialization including textile production, lithic industries, woodworking, leather processing, ceramic manufacture, and metallurgy—particularly ferrous and precious metal working. This period witnesses the appearance of Armenia’s earliest gold ornaments. Within the broader Ancient Near Eastern context, Armenia emerged as a primary bronze production center, facilitating its integration into developing interregional exchange networks (Simonyan 2012: 18–37).

THE FINAL PHASE OF THE SHENGAVIT CULTURE AND ITS LEGACY

The concluding phase of the Shengavit culture (2700-2500 BCE) exhibited numerous elements characteristic of early civilization: pronounced social stratification, monumental architecture and art, a sophisticated religious system, irrigated agriculture, husbandry of virtually all domestic animals, and advanced crafts including textile production, stone carving, woodworking, leatherworking, pottery, and metallurgy—encompassing blacksmithing, goldsmithing, and other specializations. This period marks the appearance of Armenia’s earliest gold ornaments. Within the Ancient Near East, Armenia emerged as a primary bronze-producing region, facilitating its integration into nascent international trade networks (Simonyan 2012: 18-37).

The discovery and dissemination of metal technology proved crucial for advancing trade and exchange relationships. As an essential means of production, metal stimulated economic development, social relations, and the formation of organized networks. Metal production required specialized smelting equipment—furnaces, molds, tuyere pipes, and technological structures—developed through accumulated experience

over generations. Metallurgy could spread through two primary mechanisms: (a) the gradual infiltration of smiths into communities unfamiliar with metalworking, or (b) the migration of metallurgical peoples, sometimes across vast distances. The latter mechanism required conditions of substantial demand, commodity exchange and trade transactions, urban-type trade centers, and the presence of skilled craftsmen (Durakov et al. 2019: 41-42). Weapons and ornaments could be produced either through direct replication of originals or by casting in molds.

During the Bronze Age, Phoenician merchants traded luxury goods, including textiles dyed in purple, blue, and red hues. Significantly, the purple color appears in the Armenian mythopoetic tale “The Birth of Vahagn.”

Historical reconstructions draw upon archaeological, anthropological, and paleogenetic data (Molodin 2019: 60). Analysis of primary archaeological sources delineates the distinctive class and social interrelationships of ancient Armenia’s population. The society’s social structure, commercial relations, rapid technological advancement, and narrow specialization of craftsmen all attest to the progressive character of ancient Armenian society. Simultaneously, it is essential to note this society’s profoundly conservative essence and its resilience to temporal change. Consequently, individual religious, ritual, and cultural elements—unlike those in Southern Mesopotamia—remained virtually unchanged for centuries. This stability perhaps determined the exceptional distinctiveness and continuity of Armenia’s Early Bronze Age culture throughout approximately one millennium (Simonyan 2013: 5). A similar situation was documented at Alalakh, which notably astonished the eminent archaeologist Leonard Woolley (Woolley 1986: 38).

Migrations—both emigrations and immigrations—held exceptional significance in the lives of ancient societies. These movements were motivated not only by the reduction in food supply due to drastic climatic changes and the search for new subsistence strategies, leading to ethnic displacements, but also by the drive to appropriate regions rich in raw material sources. Salt and metal ore deposits were particularly crucial. According to Italian scholar Monica Tonussi’s rather bold

hypothesis, the primary cause for Shengavit culture bearers' emigration to Palestine, specifically the Dead Sea basin, was the appropriation of salt-rich territories (Tonussi 2022: 133).

Defining characteristics of the Shengavit culture include pottery typology and design, residential architecture, and symbols associated with burial rites and cult practices, particularly fire installations—ritual hearths. These cultural traditions were preserved by emigrating Shengavit culture bearers. The presence of these diagnostic features at archaeological sites excavated hundreds of kilometers from the Kura-Araxes interfluvial heartland provides evidence for Shengavit culture bearers' penetration into new territories (Rotman & Simonyan 2022).

SOCIAL STRATIFICATION AND SOCIO-ECONOMIC CONDITIONS

The archaeological record of the Early Bronze Age reveals compelling evidence for social and economic stratification through the material culture of the Shengavit tradition. Symbols of authority and status differentiation manifest prominently in the archaeological assemblages: gold and silver ornaments, meticulously polished scepters and axes fashioned from onyx, marble, and other semi-precious stones, luxury objects, and administrative seals constitute clear markers of emerging social hierarchies. The Shengavit cultural complex has yielded significant seal discoveries at multiple sites, including Tashkun Mevki, horizons IX-VII and V at Norshen Tepe, horizon VI B at Arslan Tepe, and within the pit features at Shengavit itself. Notably, the assemblage includes conical seal blanks, indicating local production of these administrative instruments (Simonyan 2013: 41, fig. 13).

The Arslan Tepe specimen, crafted from lapis lazuli, carries particular significance. Both the seal as an administrative tool and its exotic raw material—sourced from distant regions—function as dual indicators of social differentiation and long-distance exchange networks (Sagona 1982: 117-118).

Especially remarkable are the seals bearing iconographic motifs distinctive to the Shengavit cultural tradition, discovered in northwestern Iran. As documented at Kul Tepe Jolfa, “the first and second excavation seasons yielded

both stamp seals and cylinder seals, representing the earliest attestation of glyptic art within the Kura-Araxes cultural sphere of northwestern Iran. The cylinder seal exhibits a distinctive compositional scheme featuring spiral motifs interpreted variously as ram's horns, owl eyes, or stylized human eyes—symbolic elements that recur throughout the material culture of this tradition on pottery and metalwork. Radiocarbon determinations place these seals securely within the period 2,900-2,850 BCE. These glyptic artifacts constitute the primary evidence for administrative-economic and social complexity in this region of Iran, reflecting the increasing organizational sophistication within the Kura-Araxes cultural sphere" (Abedi 2022: 3-27).

The mortuary evidence from Jinvali provides exceptional testimony to social hierarchy. The so-called "priestess burial" contained an extraordinary assemblage: approximately seventy ceramic vessels filled with wheat and barley grains, a single vessel containing ochre pigment, and a clay seal—material indicators of the deceased's elevated social position and possible ritual authority (Glonti 1984: 35).

The palatial complex at Norshen Tepe stands as an unambiguous architectural manifestation of social stratification. This hierarchical organization permeates the domestic architecture across settlements. At Mokhrablur in Nakhichevan, Horizon II reveals a striking juxtaposition: substantial residences constructed with mudbrick walls stand alongside modest wattle-and-daub structures, spatially encoding social distinctions (Abibulaev 1982: 83).

The Shengavit settlement exemplifies architectural diversity reflecting social differentiation. The site presents a heterogeneous urban landscape where spacious dwellings—featuring stone foundations, clay-plastered walls, and carefully prepared lime-plaster floors—coexist with humble, ephemeral structures, materializing social inequalities in the built environment (Simonyan 2002: 22, 24).

Red-painted floors discovered at Gharakepek Tepe constitute another archaeological indicator of status differentiation. The concentration of wealth among elite households finds further expression in the spatial organization of settlements: expansive storage facilities and substantial grain silos positioned

adjacent to or within elite residential compounds at Yanik Tepe, Shengavit, and Garni demonstrate economic control and surplus accumulation (Burney 1964: 54-62; Khanzadyan 1969: 11; Simonyan 2001: 33-34). The Near-Yerevan bronze hoard provides dramatic evidence for the concentration of wealth in individual hands (Martirosyan & Mnatsakanyan 1973: 105-115).

The foundational functions of early state formations in Egypt and Mesopotamia centered on the construction and perpetual maintenance of artificial irrigation systems. These monumental undertakings necessitated centralized authority, precise astronomical observations for predicting riverine flooding cycles, and sophisticated calendrical systems. Implementation required the preservation and transmission of accumulated knowledge, continuous oversight by priestly administrators, and the effective mobilization of massive labor forces through *corvée* systems.

Oriental despotism, as a distinctive manifestation of early state organization, progressively displaced the egalitarian principles of tribal democracy, ultimately catalyzing the emergence of ancient Near Eastern civilizations.

In Egypt and Mesopotamia, where the despotic ruler and bureaucratic apparatus controlled irrigation infrastructure—and by extension, agricultural production and food distribution—the state logically claimed ownership over arable land, particularly irrigated territories, as a royal domain essential for societal prosperity.

Similar patterns likely prevailed in Armenia, where the irrigated Ararat Plain has historically served as the royal seat—the *Vostan*—of Armenian kings, with its fortified administrative infrastructure traceable to the Early Bronze Age.

However, Armenia's trajectory toward centralized authority was fundamentally shaped by the organization of copper and bronze production. This metallurgical industry demanded societal coordination, technological expertise, and institutional frameworks. The complexity and capital-intensive nature of metal production necessitated administrative oversight, placing copper mines and major metallurgical workshops under elite control.

Natural resources and their controlled distribution proved crucial for ancient societies' subsistence economies and the legitimation of ruling authority (Bobrov 2019: 21). We propose that the differential distribution of vital raw materials across the ancient world catalyzed both long-distance exchange networks and resource-acquisition warfare.

Mesopotamia's unique geophysical situation—abundant in agricultural surplus, particularly cereals, yet deficient in lithic resources for tool production, ornamental stones, and metal ores—rendered exchange with the Armenian Highlands essential during the Bronze Age. The Armenian Highlands, rich in stone, timber, copper, and other minerals, would have satisfied Mesopotamia's persistent demand for raw materials, semi-finished products, and potentially finished goods.

The Euphrates and the Tigris rivers, originating in the Armenian Highlands, provided crucial transportation corridors for Mesopotamian commerce—an importance documented through the Hellenistic period (Herodotus, *Histories* I.194). These exchange networks facilitated not merely material transactions but the transmission of technological innovations and artistic traditions, fostering cultural interconnections across the ancient Near East.

THE ORGANIZATION OF METALLURGICAL PRODUCTION AND EXCHANGE NETWORKS

The sophisticated organization of copper and bronze production, coupled with extensive international trade networks, finds archaeological substantiation through multiple lines of evidence. Large-capacity ceramic vessels designed explicitly for copper storage, recovered from Early Bronze Age contexts, demonstrate industrial-scale metal processing (Simonyan 2002: 24). The remarkable bronze hoards discovered in the region (Martirosyan & Mnatsakanyan 1973: 122-127), alongside standardized weight systems from Shengavit—including stone and clay molds for manufacturing weight standards—provide compelling evidence for regulated commerce and metrological uniformity (Simonyan et al. 2019: 34-52). These Shengavit weight standards correspond precisely to measurement units documented across the Syria-Palestinian region and at Troy, indicating participation in Bronze Age international metrological systems.



The copper industry catalyzed the emergence of a specialized merchant class operating on multiple economic levels. These entrepreneurs facilitated the domestic circulation of copper ore and refined metal while simultaneously orchestrating the export of copper ingots and finished products to international markets, establishing Armenia as a crucial node in ancient Near Eastern trade networks (Simonyan 2012: 18-37).

Despite revolutionary advances in metallurgy, obsidian retained its strategic importance as the premier raw material for manufacturing precision-edged lithic tools. Geological and geochemical analyses reveal that obsidian exchange networks extended across distances exceeding 750 kilometers, demonstrating the persistence of Neolithic trade patterns into the Bronze Age (Popov et al. 2010).

The concentration of society's most dynamic and entrepreneurial elements—rulers, priests, wealthy elites, specialized craftsmen, and merchants—necessitated the development of substantial settlements. These central, proto-urban agglomerations, fortified with massive defensive walls, served as administrative and economic hubs (Simonyan 2012: 30). Both artificial irrigation systems and metallurgical production demanded sophisticated knowledge, technological innovation, and accumulated expertise. This intellectual capital was transmitted through two primary mechanisms: vertical transmission within craft lineages from master to apprentice, and institutional preservation within temple complexes.

The priestly class assumed increasingly vital functions as custodians of temples—repositories of technological knowledge and centers of innovation. The mineral-rich zones of the Armenian Highlands had already developed specialized copper production by the second half of the seventh millennium BCE, establishing the foundation for enduring commercial relationships with Mesopotamia's agricultural heartlands (Simonyan 2012: 30). To satisfy the ancient world's voracious demand for obsidian, copper, and bronze exports, while simultaneously managing irrigation infrastructure and meeting escalating agricultural and craft production requirements, Armenia developed a sophisticated administrative-productive apparatus (Simonyan 2012: 28-31).

The complexity of metallurgical operations transcended the capabilities of individual households or small communities. The entire *chaîne opératoire*—from mine exploitation through ore extraction, beneficiation, smelting, and the specialized manufacture of weapons, tools, and ornaments, to international distribution—required coordinated collective labor under centralized management. This necessitated the mobilization of multiple communities' resources, the systematic organization of production activities, the quality control of copper goods, and the supervision of transit trade routes.

These transformative processes reached their zenith during the terminal phase of the Early Bronze Age. The progressive consolidation of community resources elevated the ruling class's authority, crystallizing into a distinctive administrative structure wielding absolute power—the despotic system of ancient Near Eastern priest-kings (Avdiev 1972: 165, 175). The monumental kurgan burials of these ruler-priests from the second half of the third millennium BCE punctuate the landscape across the northern Armenian Highlands and South Caucasus, from the Araxes River to the southern piedmont of the Greater Caucasus range (Makharadze et al. 2016).

Archaeological evidence from both settlements and mortuary contexts reveals a complex social hierarchy: priest-kings wielding supreme authority, their palatial retinues, merchant guilds, craft specialists, free community members, and enslaved populations. Elite burials demonstrate the development of elaborate funerary protocols reserved for the ruling stratum (Simonyan 2019: 96-114).

Territorial communities comprised multiple economic units: individual households, extended family groups, and large patriarchal clans. The collective burial facilities excavated at Djoghaz and Shengavit reveal successive interments of dozens of individuals across gender and age categories within single tomb chambers—unequivocal evidence of multi-generational patriarchal family structures (Sardaryan 1967: 180; Areshyan & Simonyan 1989: 5-7; Simonyan 2008: 81-93; 2009: 215-232). The differential distribution of grave goods within Shengavit's cemeteries documents economic stratification, with marked disparities between wealthy and impoverished households (Sardaryan 2004: 370-375).

The primary imperative driving early state formation in Armenia was the organization of bronze production for pan-Near Eastern markets. This lucrative industry generated extraordinary profits, concentrating vast resources under despotic control while ameliorating conditions for free community members.

Large-scale copper production became feasible only through the domestication and deployment of equids—horses, donkeys, and mules—as draft animals and mounts. These animals uniquely combined the ability to navigate mountainous terrain with substantial load-bearing capacity. The symbiotic relationship between metallurgy and animal domestication appears foundational: metallurgical demands may have catalyzed systematic horse breeding. The discovery in Armenia of the earliest evidence for horse domestication, wheeled vehicles, and cavalry—in a region distinguished by rich metal deposits and ancient metallurgical traditions—represents no mere coincidence (Simonyan 2001: 32-33).

The metrological discoveries at Shengavit assume particular significance in this context. The site has yielded both stone and clay molds for manufacturing standardized weights, demonstrating local production of measurement standards. These Shengavit weights align precisely with Bronze Age international metrological systems documented across the Syria-Palestinian corridor and at Troy, confirming Armenia's integration into pan-regional economic networks and standardized exchange systems (Simonyan et al. 2019: 34-52).

TRADE NETWORKS AND STATE FORMATION

Archaeological evidence for Early Bronze Age commercial relations includes marine shell money—cowrie shells fashioned into standardized currency units that circulated throughout the ancient Near East alongside livestock, grain, and metals as recognized mediums of exchange (Zohrabyan 2010: 115).

At Shengavit, Tomb No. 1, excavated by Sandro Sardaryan, yielded a complete assemblage of shell currency that, unfortunately, was undervalued at the time of discovery and dispersed before proper documentation. Through the dedicated efforts of Armine Zohrabyan of the History

Museum of Armenia, these “lost” monetary artifacts have been relocated and properly accessioned into the museum’s collections. Additional shell currency specimens emerged from the settlement contexts during our excavation campaigns of 2012 and 2020-2022.

The archaeological record at Shengavit presents compelling evidence for participation in extensive trade networks: substantial accumulations of copper, large quantities of cattle and caprines, extensive grain storage facilities, exploitation of nearby salt deposits during the Early Bronze Age, diverse craft production, standardized weight manufacturing molds, administrative seals, and shell currency. This assemblage definitively establishes Shengavit’s integration into vibrant commercial exchange systems, necessitating the emergence of a specialized merchant class to facilitate these transactions (Simonyan 2012: 28-31).

The organizational demands of copper production and trade distribution required sophisticated administrative structures. The active governance of these structures catalyzed the formation of early state bureaucracies and military establishments, which were structured according to hierarchical bureaucratic principles.

The deification of the ruler-priest represents a defining characteristic of ancient Near Eastern despotic systems—a phenomenon equally manifest in the Armenian context. Mortuary rituals reveal the divine attributes ascribed to these ruler-priests, who, according to contemporary belief systems, exercised dominion over the celestial, terrestrial, and chthonic realms. The tripartite cosmology found material expression through sacrificial offerings during royal interments: avian species representing the heavens, terrestrial fauna symbolizing the earthly domain, and aquatic creatures embodying the underworld (Simonyan 2021).

The diverse tribal confederations, ethnic groups, and peoples inhabiting the Armenian Highlands, South and North Caucasus, Anatolia, Mesopotamia, and the Syro-Palestinian corridor maintained intricate networks of military-political alliances, commercial partnerships, and cultural exchanges. These sustained interactions facilitated population admixture

and ethnogenesis, generating increasingly complex social formations.

CHRONOLOGICAL FRAMEWORKS

The Early Bronze Age Shengavit (Kura-Araxes) cultural complex has traditionally been assigned to the third millennium BCE, with its terminal phase conventionally placed around 2,000 BCE—a chronological framework established by Boris Kuftin, Boris Piotrovsky, Harutyun Martirosyan, and their contemporaries. This temporal designation became so entrenched in archaeological discourse that the phenomenon was frequently designated simply as the “third millennium BCE culture,” terminology that persists in contemporary scholarship. However, subsequent investigations, particularly radiocarbon dating programs, have substantially revised this chronology, extending the origins of the “aged” Shengavit culture to approximately 3,500 BCE.

4.2 THE EARLY BRONZE AGE CULTURE OF ARMENIA

The Early Bronze Age economy of the South Caucasus was fundamentally characterized by a dual subsistence strategy of agriculture and animal husbandry, with agricultural production maintaining primacy. The technological repertoire of this period witnessed the parallel utilization of stone implements alongside copper tools, subsequently supplemented by arsenical bronze weaponry, ornaments, and agricultural implements. This technological diversification coincided with the evolution of complex religious ideologies and the consequent emergence of distinctive artistic traditions rooted in these belief systems (History of the Arts of the Peoples of the USSR, Vol. 1, 1971: 34).

AGRICULTURAL INNOVATION AND TECHNOLOGICAL CONTINUITY

The techno-economic transformations of this period culminated in the invention of the ard plough—a

revolutionary innovation that substantially enhanced agricultural productivity. However, the categorical assertions that hoe-based cultivation was entirely superseded by plough agriculture require critical reassessment (HŽP 1996: 33). Archaeological evidence demonstrates that the hoe persisted as the primary agricultural implement for an extended period. The stone and bone hoes recovered from Shengavit excavations substantiate this technological continuity. The widespread employment of wooden hoes is further attested by ring-shaped stones, which likely functioned as weighted attachments to the striking portions, thereby augmenting the implement's effectiveness in soil preparation.

During the Early Bronze Age, lightweight ard ploughs crafted from cervid antlers or wood presumably saw limited use; however, the hypothesis of their widespread adoption lacks robust archaeological substantiation.

SOCIAL STRATIFICATION AND POLITICAL ORGANIZATION

The Shengavit culture has been conventionally—and continues to be—interpreted as representing the apogee of primitive tribal-communal relations and the consolidation of patriarchal clan structures. Traditional scholarship maintains that “no significant wealth differentiation is discernible in either settlement patterns or mortuary assemblages” (HŽP 1971: 146). Only during the terminal phase of the Shengavit culture do burial data reveal indicators of tribal society disintegration and emerging wealth disparities, with the crystallization of an elite stratum distinguished by material wealth and social position (HŽP 1971: 126, 145-146; Kushnareva 1993: 226; HČP 1996: 34).

Our research team has presented extensive analyses of Shengavit socio-economic and ethno-cultural dynamics at numerous scholarly conferences, publishing studies that, drawing upon archaeological materials discovered in recent decades, propose innovative interpretations of Armenia's socio-political landscape (Simonyan 2000: 37-39; Simonyan & Gnuni 2002: 50-51; Simonyan 2003: 9-10; Simonyan & Gnuni 2003: 76-78; Simonyan & Gnuni 2004: 60-70; Simonyan 2005: 14-16). As previously articulated, our analytical framework

represents a fundamental departure from conventional interpretations of this period's socio-political dynamics. This reconceptualization bears crucial significance, as the social, economic, religious, and political matrices fundamentally conditioned the architectural and artistic developments of the Shengavit culture.

PASTORAL ECONOMY AND ANIMAL DOMESTICATION

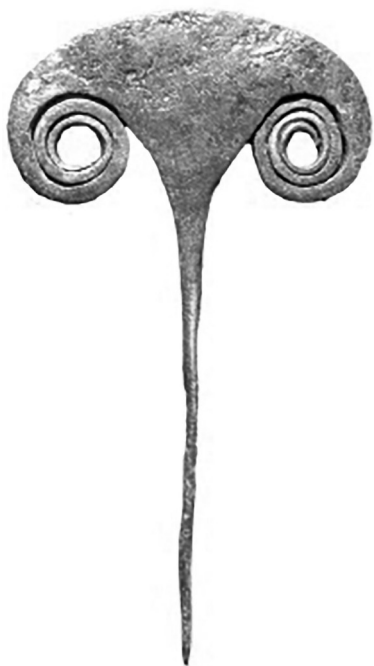
The Early Bronze Age witnessed exponential growth in pastoral production compared to the preceding Early Agricultural Period. Systematic excavations have yielded substantial faunal assemblages comprising large bovids (cattle, water buffalo) and caprines (sheep, goats), alongside remains of suids, canids, and equids (The Bronze Age of the Caucasus and Central Asia 1994: 56; Simonyan & Rothmann 2023: 95-112).

The domestication and selective breeding of equids significance became particularly significant. Equid skeletal remains have been documented at Shengavit, Karaz, Elar, Didube, Kvatskhelebi, Ilto, and numerous other sites (Mezhlumyan 1972: 6). These animals proved instrumental in the intensive colonization of piedmont and montane zones during the Early Bronze Age. According to Rauf Munchaev, the inception of transhumant or yayla pastoralism can be traced to the Early Bronze Age (Munchaev 1975: 383-385).

METALLURGICAL SPECIALIZATION AND TRADE NETWORKS

Mining operations, particularly copper extraction and processing, constituted a cornerstone of the economic system, satisfying demand not only within the Armenian Highlands but also in adjacent regions, most notably mineral-deficient Mesopotamia.

The metallurgical sector exhibited explicit specialization between communities engaged in ore extraction and those focused on manufacturing copper and bronze artifacts. Craft specialists concentrated in proto-urban settlements, frequently at considerable distances from ore sources. This pronounced division of labor by specialization became



increasingly evident (Kushnareva 1993: 268), catalyzing substantial expansion in commodity exchange and trade, and fostering the development of interregional commercial networks (Simonyan 2012: 18-37).

Architectural Innovation and Urban Development

The most compelling manifestations of societal advancement are expressed through architectural achievements, encompassing the following domains:

Urban Planning:

- Formation of hierarchical settlement systems
- Intensive agglomerated construction
- Sophisticated fortification complexes
- Monumental temple architecture
- Emergence of proto-urban centers functioning as economic, craft production, and agricultural nodes
- Development of commemorative monumental architecture.

Religious Architecture and Mortuary Practices

The existence of temples and cultic structures at Mokhrablur, Shengavit, Khirbet Kerak, and other sites attests to the crystallization of complex religious systems.

While sub-floor infant burials within domestic contexts persist as vestigial practices, a formalized mortuary tradition had emerged, characterized by extramural cemetery locations in designated sacred spaces. Shengavit culture necropoleis have been documented at multiple sites, including Voskehat, Shengavit, Elar, and Jogaz, among others.

Trade Networks and Interregional Connections

The vast territorial expanse of the Shengavit culture constituted a crucial nexus of transcontinental trade routes, strategically positioned between Mesopotamia and the Caucasus, Anatolia, the Levant, and the Iranian Plateau. The

lapis lazuli seal from Arslantepe, for instance, represents an unequivocal import. Within the western regions of the Shengavit cultural distribution, high-quality ceramic vessels imported from Assyria and Mesopotamia appear with notable frequency. North Syrian pottery emerged within the Shengavit cultural territories from the late 4th millennium BCE through the end of the 3rd millennium BCE. Commercial connections with Central Anatolia are also well-documented (Russell 1980: 30-31). The relationship between the Armenian Highlands and the Aegean world is evidenced by ceramic specimens from Göy Tepe's K1-K3 horizons, which find parallels in the Early Minoan II horizon at Mycenae (Burton Brown 1951: 25).

Reciprocally, the Shengavit culture exported bronze, timber, architectural and ornamental stones, and diverse raw materials to Mesopotamia and adjacent regions (Bobokhyan 2010: 99-108). Near Eastern civilizations extensively exploited the forest resources of the Armenian Highlands (Walom, Kantman 1969: 130). Throughout the duration of the Shengavit culture, copper and copper alloys from the Armenian Highlands were exported not only to the Near East but also to the North Pontic steppes (Gevorkyan, Palmieri 2001: 13). To sustain such an extensive market network, Armenia developed a sophisticated production system characterized by a specialized division of labor between miners and metallurgists.

Virtually all major settlements, frequently located at considerable distances from ore sources, have yielded evidence of metallurgical workshops, including molds, furnaces, smelting installations, and associated equipment (Kushnareva 1993: 268). Contrary to prevailing interpretations suggesting these craftsmen merely satisfied local community needs (Kushnareva 1993: 268-269), we contend that the extensive export market and substantial production volumes—exemplified by the 140-300 kg of cast copper recovered from a single workshop in Shengavit's lower stratum—attest to established industrial relations designed to meet market demand.

SOCIO-ECONOMIC TRANSFORMATION AND EARLY STATE FORMATION

These data necessitate a fundamental reassessment of entrenched paradigms regarding the Shengavit culture's socio-economic structure. This period witnessed the emergence of multiple characteristics diagnostic of early civilization in Armenia: fortified proto-urban settlements, religious centers, monumental architecture, centralized authority and social stratification, accumulation of proto-scientific knowledge and mastery of advanced technologies, specialized artisan classes, complex socio-economic relations, specialization in distinct metallurgical production phases, establishment of copper and bronze industries, sophisticated transportation systems, horse breeding, formation of international trade networks, and monumental sculpture—including basalt stelae reaching 5 meters in height and 1 meter in diameter, carved from single blocks, representing proto-forms of pisciform or columnar vishap stones (dragon stones).

TRANSPORTATION INFRASTRUCTURE AND TRADE FACILITATION

The widespread adoption of transportation technology proved fundamental to trade and commodity circulation. While the navigability of the Armenian Highlands' major rivers—the Araxes, Kura, Hrazdan, Euphrates, Tigris, and others—remains hypothetical pending material evidence, terrestrial transport is abundantly documented archaeologically. Numerous Armenian sites have yielded miniature tuff and terracotta wheel models of varying dimensions, manufactured as replicas of actual solid cart wheels. These models, alongside wagon body models and draft animal figurines, collectively attest to the widespread utilization of wheeled vehicles during the Early Bronze Age in Armenia.

THE EMERGENCE OF COMPLEX SOCIETY

The pronounced socio-economic stratification, presence of urban culture, industrial-scale production, and stable commercial relations demonstrate that Shengavit society had transitioned into a phase characterized by a class-based society and early state formations.

These characteristics align precisely with the developmental model of “ranked early societies” —the transitional phase from early agricultural economies to state formations (Masson 2000: 135-137). Moreover, compared to several contemporaneous cultures (Tripolye, Maykop, and others), the Shengavit culture exhibits numerous advanced features characteristic of early state societies (Simonyan 2013: 41).

The Cultural Crisis

From the mid-3rd millennium BCE, the Shengavit culture underwent an unexpected and precipitous decline. Geological investigations have documented abrupt climatic transformations, characterized by widespread aridification across the Near and Middle East, including the Nile and Indus valleys (History of the Ancient World, Vol. 1, 1988: 168-169). Written sources from the terminal phase of Egypt’s Old Kingdom attest to a dramatic decline in Nile water levels, consequent economic stagnation, social upheavals, and incursions by nomadic populations driven by climatic desiccation (Avdiev 1972: 165, 175; Verner 1972: 121). Significantly, this climatic aridification manifested asynchronously across different regions, thereby creating favorable conditions for population movements.

ENVIRONMENTAL DEGRADATION AND AGRICULTURAL COLLAPSE

The drought precipitated by abrupt climatic shifts coincided with progressive salinization of previously fertile soils—an inevitable consequence of sustained irrigation agriculture. Centuries of irrigation utilizing the carbonate- and salt-laden waters from Mount Aragats resulted in extensive soil salinization across portions of the Ararat Plain (Red Book of the Armenian SSR 1988: 101-102, 124; Areshyan 1991: 81; Simonyan 1995: 41-42). Corroborating evidence of soil salinization has been documented in the Upper Euphrates basin (Aşvan Kala) and the coastal regions of Dagestan (Wilcox 1975: 116-131; Lisitsina & Prishchepenko 1977: 63).

The confluence of climatic desiccation, salinization of prime agricultural lands, and centuries of traditional farming

practices culminated in a catastrophic decline in agricultural productivity. The Shengavit culture entered a phase of profound economic crisis. Consequently, the land could no longer sustain the substantial population densities characteristic of this period. Mass emigration ensued, with entire family groups departing from the culture's core regions toward peripheral territories, particularly Palestine, where more than fifty Shengavit culture settlements have been documented. Leonard Woolley convincingly argued that the Palestinian branch of the Shengavit culture, known as the Khirbet Kerak phenomenon, was established by migrants originating from the Armenian Highlands and South Caucasus (Woolley 1986: 26).

POPULATION DISPLACEMENT AND CULTURAL TRANSFORMATION

This large-scale emigration resulted in significant demographic depletion throughout the central territories. Into this population vacuum the Indo-European mobile tribes had penetrated.

These convergent factors—environmental, economic, and demographic—precipitated protracted military conflicts. The cumulative impact destroyed the socio-cultural unity of the Shengavit culture, already weakened by a profound economic crisis (Simonyan 1996: 41-42). Subsequently, through the synthesis of indigenous and immigrant populations, four related painted pottery cultures of the Middle Bronze Age emerged, each characterized by fundamentally different socio-political and economic structures (Simonyan 2000: 72).

4.3 THE CERAMIC ART OF THE SHENGAVIT CULTURE

Among the most diagnostic culture-defining characteristics of the Shengavit culture are the forms and decorative repertoires of its ceramic vessels. According to prevailing interpretations, these represent novel phenomena lacking genetic connections to the preceding Chalcolithic pottery traditions (The Bronze Age of the Caucasus and Central Asia 1994: 46). This question

requires thorough scholarly examination and revision, which we address below.

TECHNOLOGICAL EXCELLENCE AND TYPOLOGICAL DIVERSITY

Shengavit culture ceramics were predominantly hand-formed, yet exhibit remarkably symmetrical forms and compositions. The most prevalent types include: (a) spherical-bodied, flat-based, wide-mouthed jars; (b) ovoid storage vessels with extremely narrow bases; (c) globular jugs with cylindrical necks; (d) biconical vessels; (e) wide-mouthed bowls and cups; (f) miniature chalices; (g) tripartite-profile vessels; (h) straight-walled beakers, among others.



Functionally, Shengavit ceramics can be classified into distinct categories: (a) kitchen wares—thick-walled vessels with coarsely finished surfaces; (b) table service—fine-paste ceramics from well-levigated clay; (c) ceremonial wares distinguished by exceptional refinement, featuring superbly burnished, finely slip-coated surfaces with an almost glazed appearance, including black silver-lustrous vessels with elaborate relief decoration; (d) ritual ceramics—fired hearths, three- or four-legged stands, twin-spouted cups; (e) storage vessels—pithoi and mixing vessels for grain, beverages, and other provisions. A separate category comprises ceramic implements, including conical strainers with perforations and cooking griddles (*saj*). Vessel mouths were sealed with disc-shaped lids featuring central handles.

AESTHETIC SOPHISTICATION AND CRAFTSMANSHIP

The table, ceremonial, and ritual wares are particularly impressive. Master potters, with extraordinary skill and aesthetic sensibility, created vessels from well-levigated, fine-grained clay that qualify as genuine works of art. These exhibit perfectly proportioned forms with superbly burnished black surfaces, occasionally displaying metallic or silver-

lustrous overtones. The black surface contrasts dramatically with vibrant red interiors, creating a harmonious chromatic counterpoint. This interplay—the unity of opposites between black and red—combined with delicate relief ornamentation and proportional symmetry, generates an architectonic quality uniquely characteristic of Shengavit culture. Vessels in pink, gray, cinnamon, and other chromatic variations were also prevalent (Munchaev 1975: 161).

Emma Khanzadyan's observations regarding Early Bronze Age ceramic forms and functions merit particular attention. The diverse ceramic assemblage was designed for processing and storing foodstuffs obtained through animal husbandry, agriculture, fishing, hunting, and gathering. Early Bronze Age pottery production can be categorized by form and function into: storage jars (*karas*), pithoi, cups, jugs, beakers, bowls, basins, frying pans/griddles, funnels, strainers, braziers, stands, and other types (Khanzadyan 1967: 11).

SOCIAL COMPLEXITY AND CERAMIC PRODUCTION

The prevailing view holds that high-capacity storage vessels (*karas*), designed for storing substantial quantities of grain, flour, and liquids (dairy products, wine, beer), characterize societies with complex socio-economic structures. The Shengavit culture is distinguished by wide-mouthed storage jars with ovoid bodies.

Jars (*taghar*) represent large ceramic vessels used for storing food and heating liquids (milk, water) as well as cooking. Some feature pronounced tripartite profiles with distinct demarcation of rim, body, and base zones, while others

display smooth transitions. Discoveries include jars with bulbous bodies or straight-walled vessels terminating in wide bases (Khanzadyan 1967: 63-64). Shengavit has yielded wide-mouthed jars up to 25 cm in diameter with straight-cut rims, tapering triangular-section lips, cylindrical or globular bodies separated by grooved bands



from tall necks (up to 8 cm high), with black, gray, and pink surfaces, and thick walls up to 1.5 cm (Simonyan 2013: 40).

TECHNOLOGICAL TRADITIONS AND CULTURAL CONTINUITY

The pottery traditions of the Early Bronze Age in the Armenian Highland's central regions remained virtually unchanged for centuries. This remarkable continuity led experienced archaeologist Evgeny Bayburtyan to observe that pottery from Shengavit's lower and upper strata appears identical and indistinguishable (Bayburtyan 2011 [1938]: 28). We interpret this phenomenon as evidence that Early Bronze Age Armenia had established a specialized pottery school where aesthetic, artistic, and ritual-iconographic principles were created, taught, transmitted across generations, and strictly preserved. Perhaps due to such pronounced traditionalism, as Artak Movsisyan notes, Armenia's neighbors referred to it as "the land of divine sacred laws" (Movsisyan 2010: 8-16).

DISTINCTIVE MORPHOLOGICAL FEATURES

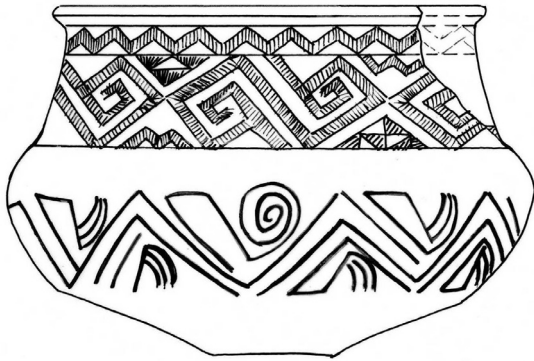
Vessel shoulders at the neck-body junction frequently feature one to three hemispherical lugs with horizontal perforations—a trait unique to Shengavit culture—alongside decorative blind lugs. During the culture's terminal phase, double-seated handles connecting the neck to the rim gained widespread adoption.

Shengavit culture ceramics differ fundamentally from contemporary Early Bronze Age pottery of neighboring regions—the Caucasus and Ancient Near East—in form, color scheme, ornamentation, and manufacturing technique. They also contrast sharply with pottery from all preceding and subsequent cultures of the Armenian Highlands.

SYMBOLIC DIMENSIONS AND CULTURAL SIGNIFICANCE

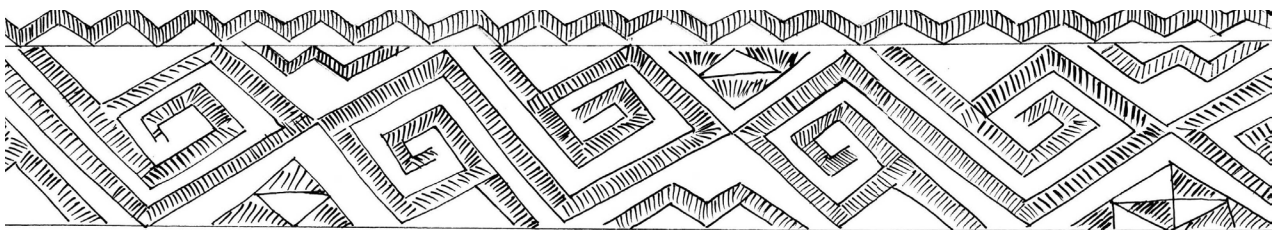
Despite being hand-formed, Shengavit ceramics display exceptional workmanship and perfect forms. The prevailing assumption that hand-formed pottery indicates low societal

development is contradicted by Shengavit's exceptionally high-quality ceramics with unprecedented aesthetic appeal. The vessels' perfection led some scholars to mistakenly identify them as wheel-thrown (Chubinishvili 1971: 43-45). They have even been compared to Greek black-glazed fine wares (Pchelina 1929: 156-159). Yet Shengavit pottery represents a unique phenomenon created by master craftsmen, completely contradicting assumptions about hand-forming as an indicator of underdevelopment. We have addressed this issue extensively, as the tradition of hand-forming ceramics persisted in the Armenian Highlands through the Urartian period (Simonyan 2016: 222-228).



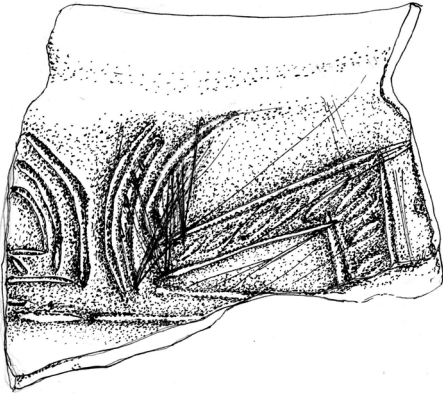
Form invariably derives from phenomenon and content. According to Hittite "royal" ritual descriptions, specific deities were identified with vessels (Ardzinba 1982: 63). Celtic beliefs considered the mythical cauldron—the world mother's vessel—as a repository of fertility (Golan 1992: 13). In India, vessels continue to be associated with the feminine principle (Golan 1992: 27).

Armenian conceptualizations linking the Vessel concept with Great Mother ideologies are evidenced by anthropomorphic salt containers. Until the early 20th century, certain Armenian regions preserved beliefs regarding unfired but unused jugs as female protectors. The ceramic vessel, as a life-sustaining container of food and liquid, was identified with the female body—evidenced by vessel terminology across languages: body, lip, neck, ear, belly, and other anatomical terms. The vessel phenomenon appears intrinsically connected to the Primordial Mother concept.



ORNAMENTATION: SYMBOLIC LANGUAGE AND AESTHETIC EXPRESSION

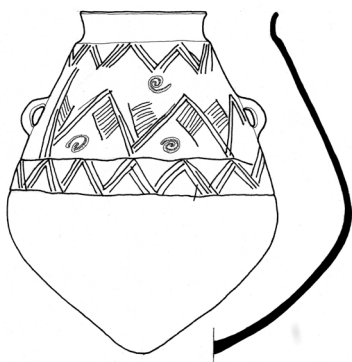
The distinctive character of ornamentation emerges from the reciprocal relationship between motif and vessel form, creating the architectonic structure of the artifact. While utilitarian objects maintain conservative forms dictated by functional requirements, decorative motifs exhibit greater variability, reflecting evolving worldviews, aesthetic preferences, and cultural tastes. These internal developments served as catalysts for transforming perceptual frameworks and modifying magical symbols through decorative expression. The impulse to embellish ceramic surfaces arose from humanity's intrinsic creative drive and desire to aestheticize the environment—a synthesis of belief systems, magical practices, and ritual-ceremonial functions (Kosven 1957: 19).



The Semiotics of Ceramic Decoration

The ceramic vessel, as both quotidian implement and sacred object, functioned as a medium for expressing cosmological beliefs and aesthetic sensibilities—a unique talisman unifying primordial matter (clay) with symbolic imagery representing conceptual synthesis. Ancient decorative patterns transcended mere aesthetic expression, serving to encode and transmit worldviews. These visual systems operated as instruments for shaping human perceptions of cosmic order. Communities believed that vessel decorations, as mystical symbols, directly influenced the functional efficacy of the objects they adorned. Individual symbols could convey multiple meanings, encompassing both esoteric and exoteric dimensions (Eganyan 2012: 33).

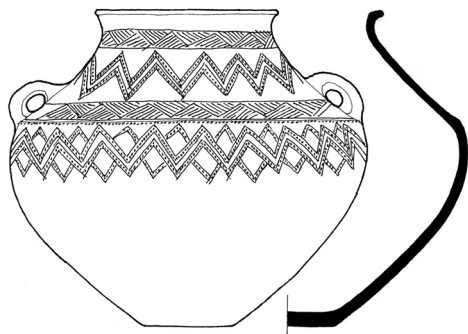
The semiotic relationship between objects (vessels) and concepts (decorations) represents a direct yet complex phenomenon—an axiomatic category requiring no empirical proof, embodying the convergence of dual realities: society and nature. This synthesis demanded recognizing spiritual essence within natural phenomena while acknowledging supernatural intervention in human affairs (Gachev 1972: 4).



No decorative motif on ceramic vessels appears accidentally or meaninglessly. Each geometric pattern originally embodied contemporary cultural meanings—now appearing as forgotten ideograms requiring decipherment (Belunina 2008: 8). Analyzing ceramic ornamentation necessitates examining decorative placement, execution techniques, structural elements, stylistic features, compositional characteristics, and ultimately, semantic content.

AESTHETIC PRINCIPLES AND DECORATIVE EVOLUTION

For Shengavit culture bearers, decorative combinations and the epistemological depth of ornamental art held profound significance. Virtually all ceramic types—vessels, lids, hearth-altars, and other artifacts—bear distinctive and complex geometric ornamentation (Munchaev 1975: 169).



The early phase featured delicate linear motifs, dimpled indentations, and relief zoomorphic sculptures. Exemplary specimens have been documented at Akhaltsikhe, Jrvezh, and Talin (Kushnareva & Chubinishvili 1970: 140; Avetisyan et al. 2010: 163-164).

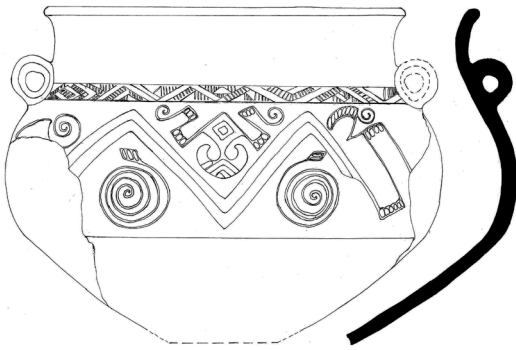
During the middle or developed phase, the principle of relief-frontal ornamentation emerged. Decorative schemes were confined to vessels' frontal zones, with compositions occupying discrete segments of the circumference. These exhibit symmetrical, balanced, and complete designs. Compositions comprised precisely articulated yet freely associated geometric elements, executed with masterful confidence. Patterns demonstrate restrained fluidity and dynamic movement, expressed through soft undulations of convex bands, spirals, and circular forms.

On superbly burnished surfaces, simple motifs executed in relief-incision technique generate dramatic interplays of light and shadow, creating reflective contrasts. Groove-like decorations “drawn” from broad surface indentations were likely produced using pencil-shaped river pebbles, imparting characteristics of bas-relief, high relief, and occasionally counter-relief to the ornamentation.

SYMBOLIC GRAMMAR AND COSMIC ORDER

Harmony functions as cosmic establishment—order triumphing over chaos. Regularities, symmetry, and rhythms emerging from repetitive elements create equilibrium. Zigzag lines—symbolizing water waves through uniform repetition—generate rhythmic perceptions of continuity. Through recurring rhythm, imagery achieves internal harmony. Wave-pattern bands, formed by connecting two or more horizontal lines, were widespread in antiquity. Horizontal lines typically implied movement; thus, parallel arrangements of broken or undulating lines evoked flowing water.

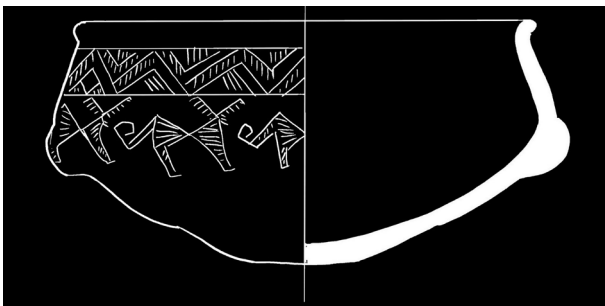
During observation, the gaze transitions smoothly between elements. When a composition is mentally bisected, one half mirrors the other. This symmetry renders decorative motifs easily “readable,” comprehensible, and stable.



The zigzag represents a graphic symbol for water and serpent—interconnected concepts. Serpentine imagery, which includes the spiral, expresses internal self-development in a condensed, enriched composition. The zigzag-spiral presents a highly stylized serpent form, embodying the mythological water-serpent-dragon complex across diverse cultural traditions. Elemental repetition emphasized conceptual importance, reinforcing and accentuating meaning while ensuring compositional balance.

RITUAL SYMBOLISM AND ICONOGRAPHIC PROGRAMS

Ritual cauldrons, vessels, and chalices were associated with preparing life-giving liquids and distributing ceremonial beverages. Horns symbolize supernatural power and life-force emanating from the head. Horn-rhombus combinations presumably signified fertility and abundance (Eganyan 2012: 33).



Characteristic decorative forms of this phase include:

- (a) Relief-incised multi-spiral coils connected by horizontal lines, rotating in various directions¹¹
- (b) Concentric circles
- (c) Diagonal angles
- (d) V-shaped compositions branching upward from single points, terminating in spirals or avian motifs.

This symmetrical, balanced composition likely symbolized the Tree of Life and fertility concepts. The primary V-shaped motif was supplemented or replaced by straight and broken lines, spirals, diagonals, rectangles, and other geometric and vegetal elements (Sagona 1982: 64-65, 82, 117-118).

Anthropomorphic Representations in Shengavit Ceramic Art

Exceptional within the decorative repertoire of the Shengavit culture are two vessels discovered at the Pulus (Blur) settlement in the Kharberd Valley of historical Armenia. These artifacts, distinguished by both form and relief ornamentation, depict human heads with remarkable sophistication. On the frontal section of a wide-mouthed, biconical jar's upper portion, a male face is rendered in deep relief. From a rhomboid base formed by two intersecting broken lines—possibly representing mouth, beard, and mustache¹²—rises a vertical nose, flanked by circular depressions denoting round eyes beneath broken-line eyebrows extending from the nose's upper portion (Koşay 1976, pl. 83 [59]).

On the second Pulus vessel, the face emerges through symmetrical mirror-branching from the vertical nose's upper section, with broken lines originating as if from a triangular apex¹³.

The relief-frontal, mirror-symmetric compositions, saturated with multi-spiral coils and characteristic of Shengavit culture, featuring horizontal tripartite arrangements, epistemologically correlate with the facial compositions discovered at Pulus. These bear attributes characteristic of female deities—spirals and lateral branches occasionally centered with bird representations. Such imagery can be interpreted as abbreviated facial representations whose fundamental semantic formula embodies the concept of life regeneration—

¹¹ According to Nino Shanshashvili, this ornament depicts the chief deity (see Shanshashvili 1990: 7).

¹² According to Ara Demirkhanyan and B. Florov, the side-view triangles with slanted mouths symbolize birds (see Demirkhanyan & Florov 1985: 81).

¹³ According to Ara Demirkhanyan and B. Florov, this ornament is associated with the Sumerian primitive hieroglyphic logogram-sign *to, tud*—meaning “to beget, to create.” It is composed of two concentric triangles, at the apex of the upper one of which a sprouting plant is depicted (see Demirkhanyan & Florov 1985: 82).

the spirals representing the masculine principle of fertility rising vertically within the feminine sphere (Demirkhanian & Frolov 1985: 82).

ARCHAEOLOGICAL CORRELATIONS AND SYMBOLIC INTERPRETATIONS

This hypothesis finds compelling support in newly discovered rock art from Tsak Sar and Yugaber, where acts of fertilization are depicted with striking directness—vertical phalli penetrating female wombs. Significantly, spirals are positioned at the location of female ovaries, symbolizing the reproductive mechanism, while ram heads appear near stylized fertile bodies as symbols of masculine insemination.

These petroglyphs, through a synthesis of symbolic and primitive naturalistic styles, reproduce fundamental themes of prehistoric cognitive imagery established in the Upper Paleolithic—perceptions of life-creation mechanisms. These worldviews achieved comprehensive expression in artworks representing the core ontological concepts of virtually all ancient civilizations. Within the analytical context of Agarak's archaeological reality, Garegin Tumanyan reached similar conclusions: "Fertility was the supreme purpose toward which Early Bronze Age mythological thought was directed" (Tumanyan 2012: 90).

ZOOMORPHIC AND ANTHROPOMORPHIC SCULPTURE

Shengavit ceramic surfaces also feature stylized zoomorphic, ornithomorphic, and occasionally anthropomorphic sculptures. Among anthropomorphic representations, three lidded jars from Pulus are particularly distinctive. Their surfaces bear human facial features—emphasized eyebrows, eyes, nose, and mouth. This small vessel group presents itself as human heads with sculpted facial features.

The canonical frontal ornamentation of artistic ceramics, prevalent during the Shengavit culture's developed phase, indicates that these were intended for unidirectional perception from specific viewing positions. This suggests these vessels occupied designated locations within domestic

interiors, fulfilling decorative functions that emphasized the artistic and ritual-magical nature of relief-frontal ornamentation.



Regional Connections and Cultural Networks

Significantly, numerous commonalities exist in the geometric elements, motifs, and compositional themes of ceramic decoration from Amiranis Gora, Harrich, early phase Karaz, Pulus, and other sites (Kushnareva and Chubinishvili 1971: 137; Khachatryan 1975; Koşay 1969: 105). These observations led Alexander Javakhishvili to conclude that Javakheti's Shengavit culture ceramics relate more closely to Shirak and the Karin region than to Shida Kartli (Javakhishvili 1973: 159-160).

The Terminal Phase: Transformation and Continuity

In the subsequent terminal phase, contrasting with its predecessor, Shengavit ceramic decoration transitioned to relief bands encircling the upper shoulder sections of vessels. Ceramics were predominantly adorned through combinations of fine incised, engraved, and relief techniques. Delicate incised bands typically encircled cylindrical necks and rim bases of jugs, while relief-impressed motifs occupied the vessels' most visually prominent central zones. Through synthesizing diverse stylistic elements, exceptionally rich and elaborate compositions emerged. In contrast, the engraved decorations on the thickened exterior bands of bowls and cups—featuring opposing directional patterns or unclosed acute angles—appear remarkably simple and monotonous.

The seemingly unnecessary complexity of fine-incised, graphic compositions characteristic of this technique exhibits a certain dryness inherent to decorative motifs. During the late Shengavit phase, meanders gained widespread adoption, alongside successive rows of equilateral triangles with sharp points directed upward or downward, their interior surfaces filled with diagonal hatching or crosshatched fields. The incision technique produced zigzag bands with fine-incised border lines, internally filled with diagonal strokes, "banners,"

and other motifs that would later evolve in the Early Kurgan culture. The fine-incised decorative tradition characteristic of Armenia's Middle Bronze Age likely originated within the Shengavit cultural matrix (Simonyan 2013: 41).

Symbolic Elements and Iconographic Programs

Conical protuberances symbolizing female breasts were prevalent (Shengavit). This decorative tradition originated in the Chalcolithic and early Shengavit phase (Voskehat), persisting until the culture's collapse. The late phase witnessed widespread adoption of schematic iconography, becoming increasingly simplified compared to the developed phase.

Finds from Shengavit's upper horizons most distinctly represent the terminal phase of Shengavit ceramic decoration.



Vessels feature zoomorphic representations, notably a bowl from Shengavit with a relief band of geometric patterns below the rim, beneath which a procession of deer moves left to right in rhythmic symmetry (Sardaryan 1967: 186). The deer cult was prevalent in Shengavit culture—not coincidentally, these animals with branching antlers appear in incised and relief forms on disc-shaped lids from Kvatskhelebi, Gudabertka, and Göy Tepe (Munchaev 1975: 169).

These possessed ritual-magical significance, correlating with cosmogonic themes and fertility concepts.

The deer image appears extensively in Armenian petroglyphs, Middle Bronze Age painted ceramics, Late Bronze Age pottery and toreutics, bronze metalloplasty of the Late Bronze and Early Iron Ages, and early medieval art, particularly in terracotta tile reliefs decorating the tombs of Armenian kings at Aghts.

Painted Ceramics: A Reassessment

The prevailing view holds that painted ceramic decoration was uncharacteristic of Shengavit communities (Archaeology: The Bronze Age of the Caucasus and Central Asia 1994: 46). However, our observations confirm that painted ceramic specimens, though limited, have been discovered at multiple Shengavit sites, including Kvatskhelebi, Nakhichevan's



Mokhrablur, and others. Particularly impressive are vessels from Karin region sites displayed in the Erzurum Museum, featuring red-painted rhomboids on black burnished surfaces, creating the impression of precious stone inlays.

Shengavit excavations demonstrate a widespread tradition of painting vessel interiors and rim undersides with red pigment, evidenced by preserved paint spots and dried drips on sherds.

The Shengavit Bowl: Cosmic Drama in Ceramic Art

An exceptional painted bowl from Shengavit features a black burnished surface decorated with delicate incised geometric patterns. The interior bears pale yellowish slip with a red-painted scene depicting storks (benevolent forces, heaven) battling serpents (malevolent forces, darkness) (Sardaryan 1967: 177, 187). The storks' victory appears predetermined, expressed through their larger scale and the serpents writhing helplessly in their beaks. The figures exhibit archaic iconographic forms and ancient artistic style characteristic of both black-burnished ceramics and rock art compositions.



The battle occurs around a tripartite hearth characteristic of the Shengavit culture. A swastika separating the images symbolizes the four cardinal directions, four creative forces, eternal movement, and seasonal cycles (Bauer et al. 1998: 38). The presence of the cult hearth—symbol of family prosperity—at the composition's center is crucial for revealing semantic content. The hearth symbolizes home, goodness, and familiar security defended by positive forces (storks), while the serpents' defeat represents the eternal narrative of good triumphing over evil, inspiring faith and hope. Maintaining the eternal hearth fire ensured family prosperity and continuity (Israelyan 2008: 201), as the hearth bestowed good fortune (Ivanov & Toporov 1965: 72-73, 168).

Writing Systems and Symbolic Communication

Vessels bear marks resembling ancient pictograms, documented at Amiranis Gora (Akhaltzikhe) and Ozni (Bolnisi Khachen) (Kuftin 1948: 32, fig. 15; Munchaev 1975: 169). We concur with Nino Shanshashvili, who considers

these ideograms genuine writing, comparing them to Hittite-Luwian hieroglyphs. She interprets the Ozni inscription as “Path to the Temple of the Supreme God” and the Akhaltsikhe hieroglyphs as calendrical calculations (Shanshashvili 1990: 11-13; *Archaeology: The Bronze Age of the Caucasus and Central Asia* 1994: 47).

Conclusion: Evolution and Tradition

Shengavit ceramic decoration exhibits exceptional richness. Virtually all vessels bear mysterious iconographic programs. Specific ceramic compositions likely replicated textile patterns, perhaps carpet designs (Simonyan 2016: 319; Azizyan 2016: 19-33). The rhythmically repeated geometric signs may represent ancient pictograms—meaningful texts readable by priests, which we perceive merely as decoration.

In summary, while Shengavit ceramic decoration preserved traditional features across centuries, it underwent substantial transformations over time: soft, flowing decorations gave way to dry, linear techniques; simple, balanced compositions yielded to complex, intricate themes; relief-impressed frontal decorations were replaced by incised bands (*History of the Arts of the Peoples of the USSR*, Vol. 1, 1971: 34). Nevertheless, the terminal phase witnessed the emergence of compositionally complex themes combining relief-impressed and fine-incised techniques, simplified zoomorphic representations, and red-painted decoration traditions.

4.4 THE ORIGINS OF GOLDSMITHING IN THE ARMENIAN HIGHLANDS

Gold, and more broadly the art of goldsmithing, stands as an enduring symbol of civilization and statehood. This precious metal has occupied a distinguished position in the daily life, beliefs, and worldviews of virtually all peoples, including ancient and medieval Armenia (*Gold of Ancient Armenia* 2007: 52-69). Across both Old and New World cultures, gold has been universally perceived as the metal-symbol of the

solar deity (Julien 1999: 146, 359). The earliest known gold ornaments have been documented in the Balkans, specifically in Varna Necropolis Grave No. 43 (4,600-4,500 BCE), where the excavated skeleton was entirely adorned with numerous gold artifacts (Slavchev 2006: 43, fig. 3).

The North Caucasian Precedents

More than forty sites associated with the Maykop and Novosvobodnaya cultures of the North Caucasus have yielded goldsmithing artifacts dated to 3,800-2,800 BCE (Korenevsky 2011: 94, 96). The Great Maykop Kurgan alone produced 6,000 gold beads, over 1,000 silver beads, 900 carnelian beads, and 60 turquoise beads, now housed in the State Hermitage Museum. The total weight of gold items from this burial exceeds 3 kilograms, while the silver objects weigh 5.3 kilograms (Piotrovsky 1996: 70).

The earliest gold artifacts from Ancient Near Eastern sites are attributed to the later 4th millennium BCE. However, goldsmithing likely originated earlier in this region, as the oldest surviving examples derive exclusively from archaeologically sealed contexts, primarily funerary complexes. These precious metal objects, in constant demand, were frequently remelted, losing their original forms. Only with the construction of monumental tombs for ruler-kings and palatial elites were ancient gold artifacts preserved in enclosed environments, reaching us through archaeological excavation. A distinct category comprises the so-called “treasures,” exemplified by the “Treasure of Priam” discovered at Troy during Heinrich Schliemann’s excavations (Treasures of Troy 1996).

The Armenian Highland Evidence

The earliest goldsmithing specimens from the Armenian Highlands were discovered at the Ovchular Tepe (Vorskan Hill) settlement, located on the banks of the Arpa River in the Sharur district of Nakhichevan province, Greater Armenia. An expedition from the Azerbaijan Academy of Sciences’ Institute of Archaeology and Ethnography excavated a 7-gram gold

bead dating to the Late Chalcolithic period (5th millennium BCE) (St. Petersburg Gazette, No. 232).

Demand for precious metals in the Ancient Near East increased substantially during the 3rd millennium BCE, concurrent with ruling class formation and the establishment of palace and temple economies. These factors, combined with ore deposit availability, catalyzed the development of traditional ethno-cultural centers of gold production. Exploitation of the Armenian Highlands' rich gold and silver deposits—at Sotk, Sper, Sakdrisi, and other locations—as well as alluvial gold-bearing sediments, has been documented from at least the 4th millennium BCE (Stöllner & Gambashidze 2014: 106; Kunze et al. 2023). From this period onward, magnificent artifacts of incomparable craftsmanship have survived, produced in Ancient Armenia's goldsmithing workshops, establishing a luxurious and distinctive school of decorative-applied arts. Raw material availability and market demand formed the foundation upon which ancient Armenian goldsmithing art developed.

Trade Networks and Military Acquisitions

According to Vadim Masson, the Great Maykop Kurgan gold likely represented the war booty of the North Caucasian ruler-king, imported from Ancient Near Eastern civilization centers (Masson 1973: 103-107; 1997: 77, 82). The Trojan treasures similarly reflect international trade and successful military campaigns (Treasures of Troy 1996). Both the Great Maykop Kurgan and numerous elite tombs in the Armenian Highlands have yielded imported luxury items, prominently including specimens of war booty acquired through victorious campaigns.

Clear evidence of military spoils in elite burials includes finds from the royal tomb at Arslantepe on the Middle Euphrates (Palumbi 2011: 47-59). Examples of military acquisitions and international trade are further illustrated by Elamite precious offerings discovered in warrior tombs at Upper Naver and Metsamor, dating to the terminal Middle Bronze Age (Simonyan 2012: 110-113; Simonyan 2015: 219-227), and Babylonian royal seals (Simonyan 2013: 42-49).





Personal Adornments and Symbols of Authority

The archaeological record of Early Bronze Age Armenia reveals a sophisticated tradition of personal ornamentation, encompassing beads, earrings, finger rings, pendant-amulets, dress pins, diadems, and insignia of authority crafted from gold, silver, and semi-precious stones. These artifacts illuminate the social stratification and artistic achievements of Armenian Highland communities during the third millennium BCE.

Members of the general populace adorned their garments with skillfully carved bone pins, some of which exhibited exceptional craftsmanship. These fasteners likely secured the edges of cloak-like garments resembling the “sari” type. The social elite, conversely, demonstrated a marked preference for metalwork, particularly gold ornaments. A substantial corpus of these prestigious objects emerged from excavations at the Shengavit urban settlement (Sardaryan 1967: 180, fig. 45/1-3; 2004: 274, 370-371).



Spiral Temple Rings: Emblems of Power and Prestige

Among the earliest insignia of authority and social prominence in the ancient Near East are temple ornaments featuring one-and-a-half spiral turns crafted from precious metals. This distinctive tradition, emerging in the mid-fourth millennium BCE, persisted for approximately fifteen hundred years. Throughout the Early and Middle Bronze Ages (ca. 3,000-1,500 BCE), these spiral ornaments—fashioned from gold, silver, or bronze—achieved widespread distribution across the entire ancient Near Eastern cultural sphere.

Comparable golden spiral ornaments have been documented in the Royal Tombs of Ur, at Mari, in Troy II, and at numerous contemporary sites, predominantly dated to 2,700-2,500 BCE (Avilova 2018). These parallels underscore the participation of Armenian Highland communities in broader interregional networks of prestige exchange and symbolic expression.

According to current archaeological evidence, the northern regions of the Armenian Highland have yielded dozens of sites containing spiral temple rings manufactured from gold, silver, and copper-bronze alloys. The earliest exemplar—a tin-

bronze specimen from the Great Kurgan at Talin, radiocarbon-dated to 3,330-2,936 BCE—establishes the antiquity of this tradition in the South Caucasus (Avetisyan et al. 2010: 163-164).

The most remarkable example of this goldsmithing tradition emerged in 2020 from the Great Kurgan at the Upper Zuyghbyur cemetery in Gorayk. This exceptional piece, weighing 14.7 grams, demonstrates mastery of multiple metallurgical techniques, including rolling, wire-drawing, forging, and polishing (Simonyan 2021: 14). Radiocarbon analysis securely dates this artifact to the first half of the third millennium BCE.

Another significant gold temple ring was recovered from the summit of the Metsamor fortress. Within a rock-cut tomb sealed with stone slabs, archaeologists discovered a child burial in a contracted position on the right side. Beneath the right temporal bone lay a spiral gold ornament of one-and-a-half turns (weight: 5.23 g; diameter: 1.1 cm), its surface exhibiting meticulous polishing and burnishing. Associated ceramic assemblages—black burnished and pink pottery diagnostic of the Shengavit culture—provide a chronological framework placing this ornament in the mid-third millennium BCE (Gold of Ancient Armenia 2007: 72). A closely parallel specimen from Shengavit Tomb 1 (weight: 4.25 g; diameter: 0.9 cm) displays comparable technical excellence, crafted from high-purity gold with expertly polished surfaces and tapered terminals (Sardaryan 1967: 180, fig. 45/2, pl. XI, 5).

Thomas Stöllner's research emphasizes that spiral ornaments with one-and-a-half turns constitute a diagnostic feature of South Caucasian material culture. From this region of innovation, the tradition was disseminated throughout the urban centers of the ancient Near East (Stöllner & Gambashidze 2014: 109). Significantly, golden spiral ornaments achieved broad distribution across Bronze Age Eurasia, including the Yamnaya and Catacomb culture complexes of the Pontic-Caspian steppe zone (Ivanova 2010: 190-197).

Current archaeological inventories document approximately twenty gold spiral ornaments with one-and-a-half turns from the northern Armenian Highland, encompassing

sites in modern Armenia, Georgia, and Azerbaijan. These specimens exhibit diverse manufacturing techniques—some featuring hollow construction, while others represent solid castings. Particularly noteworthy for their substantial weight are examples from Ananuri Tomb 2 in Kakheti (8.09 g) and Kurgan 1 near Lake Paravani in Javakheti (9.4 g) (Stöllner & Gambashidze 2014: 110-111, fig. 8). The recently discovered Gorayk specimen from Syunik province (14.7 g) represents the heaviest example documented to date.

Bronze and copper variants of these ornaments appear throughout the archaeological record of the Armenian Highland and the South Caucasus. The Early Bronze Age horizon at Norshen Tepe yielded seven specimens (Gold of Ancient Armenia 2007: 72); Jogaz Tomb 1 near Berkaber village in Tavush Province produced nine examples (Simonyan 2009: 216-217); while the Shengavit settlement and cemetery complex has yielded over twenty copper-bronze spiral ornaments (Sardaryan 1967: 464, fig. 57; Simonyan 2013: 13, image 12; Badalyan et al. 2015: pl. 58/569).

The Shengavit tombs have proven particularly rich in golden ornamental artifacts.

The Shengavit Pectoral:

A Masterwork of Early Bronze Age Goldsmithing

The pendant-amulet discovered in 1961 from the Shengavit Tomb 1 represents the apogee of Early Bronze Age metallurgical artistry. This exceptional artifact, fashioned from thin gold sheet using repoussé, engraving, and chasing techniques, exemplifies the sophisticated symbolic vocabulary of Shengavit culture (State History Museum of Armenia, inv. 2332/49; weight: 1.45 g; diameter: 2.3 cm)¹⁴. The suspension element, attached at the apex, consists of a laminated gold sheet that tapers upward before folding to create a tubular horizontal channel for the suspension cord.

The obverse surface bears an intricate program of incised geometric motifs characteristic of Shengavit artistic expression, composing a symbolically charged iconographic scheme. The peripheral zone displays precisely executed zigzag patterns infilled with diagonal hatching—motifs widely interpreted

¹⁴ In our view, specific terms employed in academic publications to describe the ornamentation—such as “relief zigzags” and “incised lines executed by stamping”—are not well-founded (see *The Gold of Ancient Armenia*, Yerevan, 2007: 73). Based on our observations, apart from the small spheres incorporated into the amulet’s decoration, no other relief images are present, and the stamping technique was not employed at all.



as representations of lightning and thunder in ancient Near Eastern iconography (Myths of the Peoples of the World 1987: 272). The central design features a complete zigzag flanked above and below by partial zigzag elements, suggesting stylized wings. The intervening spaces preserve Z-shaped fields with smooth, undecorated surfaces.

The fundamental decorative scheme comprises rectangular panels with smooth surfaces, which are subsequently filled with diagonal hatching. This motif, originating at the pendant's apex, extends through the upper hemisphere of the circular pectoral, delineated from adjacent decorative zones by a finely incised rectangular frame. Flanking the base of this central element, raised bosses punctuate the upper section of the circular field.

The central register of the circular sheet displays three horizontal rows of upward-pointing isosceles triangles executed in engraving technique and infilled with diagonal lines, arranged in a tripartite composition (4-5-4 triangles in the upper, central, and lower registers, respectively). This central motif is embraced by a three-quarter arc band featuring smooth surfaces bordered by incised lines on both sides. The entire composition is encircled by a peripheral band following the disk's circumference, filled with diagonal hatching and terminating at the raised bosses.

Symbolic Iconography and Mythological Narratives in Geometric Design

In ancient Near Eastern societies, geometric motifs functioned as vehicles for complex mythological and epic narratives, encoding stories of cosmic creation, the primordial struggle between chaos and order, dragon-slaying episodes, and other heroic sagas. This universally comprehensible system of conventional symbols enabled artisans to render sophisticated theological themes concerning the conflict of opposing forces, and elaborate narrative sequences. The structural simplicity of geometric notation provided an ideal medium for modeling mythological entities through elemental visual forms.

The semantic interpretation of geometric figures and three-dimensional forms—such as circles and spheres, triangles and pyramids, among others—provides a methodological foundation for deciphering, or at least anticipating, the

narrative structure of mythological accounts and religious systems constructed through their systematic combination. Archaeological evidence confirms that ritual spaces and the cosmic architecture—both horizontal and vertical dimensions—were consistently represented through geometric imagery (*Myths of the Peoples of the World* 1987: 272). The decipherment and semantic analysis of these thematic compositions constitute fundamental challenges in the interpretation of ancient artistic expression.

Reinterpreting the Shengavit Pendant: Beyond Gender Symbolism

Previous scholarship has interpreted the Shengavit pendant-amulet as a stylized female figure, reading the suspension loop as the head, the circular body as the torso adorned with breasts (represented by bosses), and the isosceles triangles as feminine symbols (Khanzadyan 1969: 98; Gold of Ancient Armenia 2007: 72). However, this iconographic reading appears arbitrary when examined against broader ancient Near Eastern symbolic conventions.

Established iconographic traditions demonstrate that femininity was universally symbolized by downward-pointing triangles, while upward-pointing triangular forms consistently represented mountains, the masculine generative principle—the lingam (according to Vedic tradition, the emblem of Lord Shiva), divine creative force, and other masculine phenomena (*Myths of the Peoples of the World* 1987: 272; Bauer et al. 1998: 36). Consequently, the upward-pointing triangles arranged in three tiers cannot plausibly be interpreted as feminine symbols.

A Cosmological Battle: Decoding the Mythological Narrative

Rather than depicting a female form, the Shengavit amulet presents a complete mythological narrative of cosmic significance. The precisely executed zigzag patterns represent lightning and thunder—atmospheric weapons of divine authority (*Myths of the Peoples of the World* 1987: 272). The upward-pointing triangular elements symbolize a mountainous landscape, the terrestrial stage for divine combat. The three-quarter circular band enclosing the central motif and terminating in raised bosses likely represents

the amphisbaena—the two-headed cosmic serpent of Indo-European mythology—whose threatening heads loom over the highland terrain.

This iconographic structure finds compelling parallels in the lion-headed serpent-dragons adorning the ceremonial helmet of Sarduri II of Urartu, though rendered here in a more schematic form (Piotrovsky 1959: pl. XXXVI). The two-headed serpent-dragon motif appears throughout Bronze Age material culture, notably on black-burnished vessels (karases) bearing relief representations discovered in the temple complexes at Metsamor (Khanzadyan et al. 1973: 125, fig. 123¹⁵) and Dvin (Kushnareva 1977: 17, 19-21, figs. 26-29, pls. IX-XI).

Based on this iconographic analysis, we propose the following interpretation: The zigzag motifs above the mountains represent a thunder-wielding deity (depicted through the metonymic symbol of lightning) engaged in primordial combat against the two-headed cosmic serpent—the embodiment of chaos threatening universal destruction. The triangles encircled by the engraved band delineate the sacred battleground: a mountainous realm protected by an apotropaic circle. Significantly, this compositional treatment of mountainous terrain finds direct parallel in the silver vessel from the Maikop Great Kurgan, suggesting shared cosmological concepts across the Caucasus region.

The iconographic program likely depicts a foundational Indo-European mythological theme: the supreme storm deity's battle against the world-serpent of chaos, struck down by divine thunderbolts. The presence of diagnostic Shengavit cultural motifs (Khanzadyan 1969: 98; Gold of Ancient Armenia 2007: 72) indicates local manufacture and suggests that this cosmic drama was understood to unfold within the Armenian Highland itself—a localization of universal mythology within specific sacred geography.

Cultural Connections and Chronological Context

The Shengavit Tomb 1 pectoral ornament demonstrates direct stylistic affinities with medallions from the early kurgan culture, particularly specimens from Ananuri (ca. 2500-2300 BCE) and the Odzun tombs (Gold of Ancient Armenia 2007:

¹⁵ It is unclear to us why Emma Khanzadyan presented the two-headed vishap as a serpent with stork heads (see Khanzadyan et al., 1973, p. 125, fig. 123).

74-75, pl. XI, fig. 2), establishing its participation in broader Transcaucasian prestige networks.

According to Sandro Sardaryan's detailed inventory of the Tomb 1 assemblage (Sardaryan 1967: 180), the burial originally contained a complete composite necklace incorporating polychrome gemstones, marine shell trade beads, and the magnificent gold pendant-amulet of high-karat yellow gold as its centerpiece. While excavation documentation unfortunately precludes full reconstruction of the necklace's original configuration, the ensemble clearly represented a luxury item of exceptional craftsmanship, distinguished by sophisticated chromatic harmonies—a testament to the aesthetic refinement and the material wealth of Shengavit's social elite.

Elite Adornments: Gold and Silver Jewelry from Shengavit. The Gold Ring: Technical Analysis and Chronological Attribution

A gold ring featuring an elaborate filigree crown was recovered from Tomb 2, discovered in situ on the finger phalanx of one skeleton (Sardaryan 2004: 371, fig. 45/3).

This exceptional piece demonstrates sophisticated ancient metallurgical techniques: thin gold wire was bent into a circular band, with a multi-layered woven panel affixed at its apex. To ensure structural integrity, reinforcing wires were threaded through the mesh rows, and the entire woven assembly was overlaid with a thin gold sheet, whose edges were wrapped around the ring band on both sides of the decorative panel.



The chronological attribution of this ring has generated considerable scholarly debate. Some researchers from the Armenian National Academy of Sciences Institute of Archaeology propose that the ring was deposited alongside a teapot-shaped vessel during a Hellenistic period intrusive burial (Gold of Ancient Armenia 2007: 222; Badalyan et al. 2015: 223). This interpretation led to the ring's classification among Hellenistic materials in both the academic publication *Gold of Ancient Armenia* (2007: 73, pl. CXX, fig. 7) and the State History Museum inventory (Badalyan et al. 2015: 162, 223, table 70, fig. 672).

However, this Hellenistic attribution overlooks crucial contextual evidence: no definitive indicators of intrusive burial have been documented for this tomb, and the ring's discovery position—on the skeleton's finger in situ—argues strongly for contemporaneous deposition. Comparative technological analysis provides compelling evidence for an Early Bronze Age date.

Technological Parallels: The Tsnori Evidence

Critical comparanda emerge from Tsnori Tomb 2, securely dated to the second half of the third millennium BCE. The assemblage includes a thin gold sheet (length: 10.0 cm; weight: 5 g), tapered toward the ends with one edge folded at right angles—likely a veneer fragment from a carved wooden object. Most significantly, the tomb yielded a circular pectoral collar of thin gold sheet with screw-fastened terminals (diameter: 0.3 cm; weight: 4 g), to which was attached a delicate chain of fine wire links. Post-depositional roof collapse caused stone impacts that fragmented this woven chain into three sections (Dedabrishvili 1979: 42).

The manufacturing techniques are identical: both the Shengavit ring crown and the Tsnori pectoral employ multiple rows of fine wire micro-links secured by tapered gold plates attached through wrapping. The artifacts share remarkably similar weights—4.35 g and 4.0 g, respectively—suggesting standardized production parameters.

The intact Tsnori tomb provides unambiguous evidence that fine wire-loop chain technology was established in the South Caucasus during the third millennium BCE and continued through the Early Kurgan period. The gold ornament from the Alazani Valley definitely demonstrates that this sophisticated jewelry tradition predates the Hellenistic period by over a millennium.

Conclusion: The Shengavit ring exhibits archaic technological characteristics incompatible with Hellenistic goldsmithing. Its attribution to the final phase of the Early Bronze Age, as part of the original Tomb 2 assemblage, is supported by both technological analysis and comparative regional evidence. The Hellenistic dating remains contentious and methodologically unfounded.



Obsidian and Precious Stone Ornaments: The Obsidian Pendant

During our 2009 excavations in Shengavit's upper stratum, we recovered a remarkable drop-shaped—more precisely, phallic—pendant crafted from carefully selected obsidian. The stone exhibits a striking optical effect: dark black at the edges transitioning to translucent at the center, creating an illusion of suspended peripheral layers floating in space. The base features a wrapped fine gold sheet that amplifies the pendant's luminosity (Simonyan 2013: 14, image 9, fig. 7).

Gold Casing

The 2005 cemetery excavations yielded a small object casing decorated with engraving and punctate techniques. Berlin Institute of Archaeology analyses confirm the use of low-grade gold, suggesting either economic constraints or deliberate alloy selection for specific properties.

Silver Ornaments and Pins

Silver artifacts from Shengavit include a remarkable pin head featuring a zoomorphic relief resembling an ibex (Sardaryan 2004: 371, fig. 45). Though excavated in 1961, this piece was only accessioned to the State History Museum in 2023, awaiting comprehensive study.

Gemstone Beads and Amulets

Sardaryan documented an extensive corpus of gemstone ornaments from Shengavit tombs: agate, jasper, carnelian, and rock crystal beads, alongside copper examples and a crescent-shaped pendant with a suspension loop¹⁶. He describes a tribal leader's tomb from Stratum IV containing "numerous fine ceramic vessels, gold pendant, ring, spiral ornaments, silver rings, copper items with shaft attachments, an axe with fir-tree engravings, pins with bird and animal-headed terminals, spiral bracelets, sickle, awl, spearhead, rings, hair pin, casting mold, and other items" (Sardaryan 1967: 371). These materials were transferred to the State History Museum in 2023.

¹⁶ Similar sardion beads have been discovered in the Karashamb "Great" and Nerkin Naver Tomb No. 1, dated to the 23rd–21st centuries B.C. (see Simonyan 2004: 126–127). It is noteworthy that in 2020, during the excavations of Square M:6 in the upper layer of the Shengavit settlement, a disc-shaped terracotta pendant with a perforation at its base was also found.

Our excavations have significantly expanded this assemblage, recovering beads of jasper, glass, jet (black satin), carnelian, felsite, and tuff in spherical, disc, and cylindrical forms. Particularly noteworthy are jet disc beads with serrated edges resembling gear wheels, and large spherical red jasper beads painted with black pupil designs—Armenia’s earliest documented eye beads, apotropaic amulets against the evil eye.

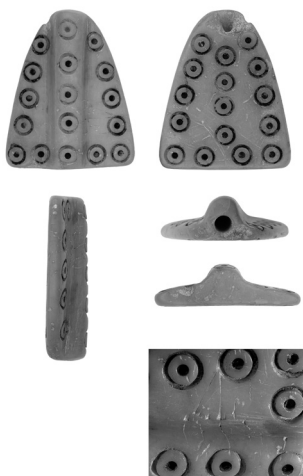
Composite and Symbolic Objects

The Butterfly Figurine

The upper stratum yielded a butterfly-shaped figurine body carved from soft, milk-white stone, decorated with concentric circles filled with black pigment. This sculpture parallels an Early Dynastic IIIB period (ca. 2,400-2,250 BCE) figurine from Mari featuring a steatite eagle body with cast gold lion head and bird tail (Art of the First Cities 2003: 140-141). The Shengavit example likely possessed a similar composite construction—a stone body with a metal head—that was subsequently broken away, damaging the attachment socket. Significantly, the figurine bears cuneiform signs, suggesting literacy or pseudo-literacy.

The Serpentine Amulet

An exceptional phallic pendant-amulet of green serpentine with white inclusions features two hemispheres from which rises a vertical shaft with horizontally drilled perforation at the apex. This almost certainly formed part of a fertility priestess’s ritual regalia (Simonyan 2013: 14, figs. 14-16).



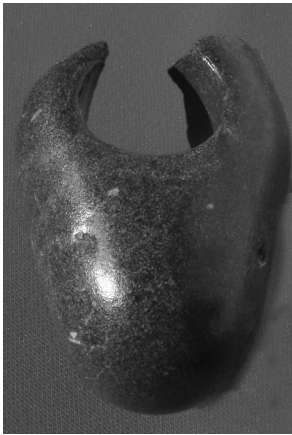
INSIGNIA OF POWER AND AUTHORITY

Gendered Symbols of Leadership

Archaeological evidence from Shengavit reveals a sophisticated system of authority symbols differentiated by gender. Male authority manifested through ceremonial mace and axe heads carved from prestigious materials, including marble, onyx, hematite, jasper, and sedimentary stones. These mace heads, fashioned in pear-shaped or spherical forms,

exhibit meticulously polished surfaces and precisely drilled vertical perforations for hafting wooden handles. Specimens have been recovered through excavations by Evgeny Bayburtyan, Sandro Sardaryan, and our recent campaigns (Badalyan et al. 2015: 25, 32, 33, 85, 127, pls. 15-6, 892).

Female authority found expression in an exceptional spindle whorl head crafted from pale yellow stone with distinctive red veining, featuring seven carefully drilled depressions on its upper surface—likely settings for precious stone inlays. While this specific form represents a unique specimen in Armenia’s archaeological record, analogous examples were widespread at Troy, suggesting this prestige item reached Shengavit through long-distance exchange networks.



Stone Battle Axes: Weapons of Command

Stone battle axes constitute paramount symbols of authority, characterized by symmetrical bodies, exquisitely burnished surfaces, and precisely drilled shaft holes. These implements feature sharp cutting edges complemented by rounded, hammer-like poll ends. Our excavations at the Shengavit cemetery yielded two battle axe fragments with pronounced striking surfaces—one fashioned from red jasper, the other from green jasper. Comparable fragments emerged from excavations by Bayburtyan and Sardaryan (Badalyan et al. 2015: pl. 14, no. 57553).

An extraordinary addition to Armenia’s archaeological patrimony is the complete battle axe of milk-green serpentinite discovered in 2020 at the Great Kurgan of Gorayk, Syunik (height: 3.3 m; diameter: 40 m). This boat-shaped weapon features a pronounced relief ridge extending from the drilled perforation to the expanding blade edge. The blade presents a broad cutting surface, while the poll section descends to form a circular, slightly convex striking platform. With its superb pale-green metallic luster, perfectly polished surfaces, and canonical proportions, this axe represents an exceptional artistic achievement. Remarkably, when wet, the serpentinite transforms to display vibrant, expressive green hues; upon drying, the color transitions return to subtle, peaceful tones—as if the symbol of authority itself oscillates between states of



activation and repose. This represents the only complete stone battle axe yet recovered from Armenian contexts.

Such axes are diagnostic of Central European cultures and the Yamnaya and Catacomb complexes of the south Russian steppes and the North Caucasus. Invariably discovered in elite burials, they embodied supreme authority. Leading scholars identify the bearers of these steppe cultures as ancient Indo-European-speaking populations. The Syunik specimen corresponds typologically to Yamnaya and Catacomb boat-shaped battle axes, providing unequivocal evidence for connections between the Armenian Highland and the Eurasian steppes during the first half of the third millennium BCE (Simonyan 2021: 8-16).

Stone Vessels

The goldsmithing tradition extends to include a marble-limestone bowl rim fragment from Shengavit, whose profile mirrors contemporary ceramic vessel forms. Some scholars propose that vessels carved from colored stones constituted additional insignia of authority (Masson 1989).

MIGRATIONS AND THE SHENGAVIT DIASPORA

Drivers of Population Movement

Migration—both emigration and immigration—fundamentally shaped ancient societies. These movements resulted not merely from climatic fluctuations affecting food security and subsistence strategies, but also from deliberate colonization of resource-rich territories. Salt deposits and metal ores proved particularly crucial for economic development.

Monica Tonussi advances the provocative hypothesis that Shengavit culture bearers migrated to Palestine, specifically the Dead Sea basin, primarily to control salt-rich territories (Tonussi 2022: 133). The migrants preserved distinctive Shengavit cultural markers: ceramic typologies and designs, domestic architecture, burial practices, and ritual installations—particularly ceremonial hearths. The presence of these diagnostic features at sites hundreds of kilometers from the Kura-Araxes homeland demonstrates the migration's extensive territorial scope (Rotman & Simonyan 2022).

The Egyptian Campaign Against Heruisha: A Historical Hypothesis

A remarkable account of Early Bronze Age terminal phase events appears in the hieroglyphic inscription from the tomb of Uni, general to Pharaoh Pepi I (ca. 2,310-2,260 BCE), discovered at Abydos (30 × 30 m). The inscription records Egyptian military campaigns northward against the land of Heruisha, semantically interpreted as “those upon the sands”—a term conventionally assumed to refer to desert-dwelling Bedouins.

However, textual analysis reveals this identification as problematic. The inscription specifies that Egyptian forces advanced both by land and sea, indicating coastal or near-coastal territories. Moreover, it describes numerous fortresses, productive orchards, and vineyards, which are incompatible with either desert conditions or nomadic populations. This land clearly supported sedentary communities with fortified settlements and developed horticulture.

The campaign’s significance is evident from Egypt’s total military mobilization: forces from Upper and Lower Egypt, reinforced with troops from Elephantine to the Delta, supplemented by Ethiopian and possibly Libyan contingents (History of the Ancient East 1983: 376-377). This pan-Egyptian army, led by the talented commander Uni, represented unprecedented military commitment. Uni’s inscription emphasizes disciplined conduct during the northward march¹⁷, with troops causing no harm to Egyptian subjects or property (History of the Ancient East 1983: 376).

With this immense military force, Egypt sought to crush the enemy in a single blow and to secure its northern frontiers. Despite the victory hymn inscribed on Uni’s tomb, the conflict proved protracted and difficult. Egypt conducted six major campaigns against an enemy fielding tens of thousands of warriors. While the exact battle locations remain uncertain, scholars generally place Heruisha in Palestine¹⁸.

The Shengavit-Egypt Connection

The relevance to Shengavit culture becomes apparent when considering that by the 25th-24th centuries BCE, Shengavit

¹⁷ A basis for this may be the evidence that the Egyptian army was joined by military detachments from northern Ethiopia, which, in order to march toward Palestine, had to traverse Egypt from its far south to the north—a distance of roughly 1,200 kilometers.

¹⁸ Known as a fact, the Egyptian script did not express vowels, which is why scholars have reconstructed words, personal names, and toponyms arbitrarily, often based on Greek pronunciations used millennia later (see: History of the Ancient World, vol. 1, Early Antiquity. Moscow, 1983: 94). In this regard, the name Heruisha is also conventional, as it is written in the form HRSH.

population had established itself throughout Palestine. This led to the formation of the Khirbet Kerak culture, which marked the southwestern frontier of the Shengavit cultural sphere. These migrants moved in family groups; the Amuq Valley alone contained over fifty Shengavit settlements (Woolley 1986: 25).

We propose that Egypt's campaign aimed, among other objectives, to halt Shengavit's expansion southward. These populations may have reached Egypt's northern borders—the Sinai Peninsula's sandy regions—hence the designation “those upon the sands.”

Our research indicates that Shengavit communities particularly targeted copper-rich regions. The abundant copper deposits likely attracted Shengavit colonization of the Caucasian ore-bearing territories. The Sinai Peninsula represented another such resource-rich target. Egypt had controlled these copper sources since the Old Kingdom's Third Dynasty, posthumously deifying Pharaoh Sneferu as conqueror of Sinai (History of the Ancient East 1983).

By the mid-third millennium BCE, Egypt faced threats to Sinai requiring defensive measures: construction of the “House of Sneferu” defensive system and fortresses in the northeastern Delta, later called the “Walls of the Ruler” (History of the Ancient East 1979: 30). Despite these preparations, Egypt fought wars over Sinai during the Fourth and Fifth Dynasties. The UNI's campaign likely aimed to eliminate threats to Sinai's copper resources.

After prolonged conflict, Egypt recognized that securing Sinai required destroying enemies in their homeland. Egyptian forces, therefore, struck not just border positions but fortified settlements with vineyards and orchards deep in enemy territory.

The archaeological evidence—dozens of fortified Shengavit settlements in Palestine—suggests these culture bearers constituted the force threatening Sinai's copper mines.

Leonard Woolley, the preeminent Near Eastern archaeologist, identified the Hittites as Shengavit culture bearers who migrated from the Armenian Highland through northern Mesopotamia to the Levant, resided there extensively, then

retreated northward under pressure—possibly from the pan-Egyptian army—to establish their Anatolian kingdom (Woolley 1986: 25-27).

Conclusion

The synthesis of archaeological evidence from the Armenian Highland and Levant with Egyptian hieroglyphic records enables the reconstruction of a forgotten chapter in ancient history. We believe these momentous events echo in the Armenian epic *Sasna Tsrer* (Daredevils of Sassoun), preserving the cultural memory of this Bronze Age diaspora and conflict.

4.5 SMALL-SCALE FIGURATIVE ART OF THE EARLY BRONZE AGE ARMENIAN HIGHLAND

Introduction: The Art of Miniature Sculpture

The Early Bronze Age witnessed the flourishing of a distinctive artistic tradition: miniature figurines crafted from terracotta and, occasionally, soft stone, depicting humans and animals. The Armenian Highland's Early Bronze Age sites have yielded several hundred complete or fragmentary figurines, alongside portable shrines adorned with zoomorphic, anthropomorphic, or phallic relief sculptures (Esayan 1980: 5). These artifacts, predominantly fashioned from fired clay with rare examples in unfired clay or soft stone varieties, typically measure from several centimeters to 10-15 cm in height. Significant assemblages have been recovered from Shengavit, Harich, Mokhrablur, Agarak (11 examples), and sites throughout the Van basin.

The small-scale figurative art of Early Bronze Age Armenia evolved from the principles of simplified naturalism characteristic of early agricultural societies, progressively acquiring qualitatively new attributes. According to established scholarship, Shengavit culture figurines materialized as products of Early Bronze Age symbolic

cognition. Simplified naturalism and generalized realism define the artistic vocabulary of Shengavit miniature sculpture (Areshyan 1981: 88-97).

This conventional-generalized stylistic approach characterized not only the Armenian Highland but virtually all regions of the ancient world during this period (Antonova 1977: 5; 1990). Stepan Esayan categorizes this artistic domain into two primary groups: anthropomorphic and zoomorphic sculptures (Esayan 1980: 9). Vadim Masson & Viktor Sarianidi further subdivide Central Asian anthropomorphic figurines into three categories: female, male, and indeterminate anthropomorphic forms (Masson & Sarianidi 1973: 83).

Beyond anthropomorphic figurines, Early Bronze Age Armenian Highland communities produced sculpted hearths and bow-shaped portable altars featuring relief decorations and protruding elements on their wing terminals and central sections. While some sculptures exhibit naturalistic treatment, others display stylized forms, predominantly represented through phallic protrusions—potentially constituting a fourth category of anthropomorphic sculpture.

Anthropomorphic Figurines: Clay as Sacred Medium

Clay served as the primary constructive material throughout early agricultural and Early Bronze Age societies. Significantly, numerous cultural mythologies describe the divine creation of humanity from clay, subsequently animated with life force. Igor Diakonov notes that the ancient Mesopotamian *Epic of Gilgamesh* references spontaneously formed clay anthropomorphic figurines (*Epic of Gilgamesh*: 55-56). These beliefs likely motivated the production of clay anthropomorphic and zoomorphic figurines in early agricultural and Bronze Age contexts, artifacts imbued with supernatural attributes. Anthropomorphic figurines most plausibly embodied domestic deities.

Terracotta figurines emerged in the ancient Near East, including southern Armenian Highland sites such as Çayönü Tepesi, during the formative phases of agricultural economies. Through evolutionary development, they achieved widespread distribution during the Early Bronze Age.

Female Figurines (Coroplastic Art)

Geographic Distribution and Cultural Context

Coroplastic art flourished across the ancient world: Greece, the Levant, Mesopotamia, Iran, Central Asia, and India. Particularly renowned are terracotta figurines from Mesopotamian urban centers, including Babylon, Kish, Ur, and Nineveh. Turkmenistan's archaeological sites have yielded exceptionally rich assemblages, meriting dedicated monographic treatment (Masson & Sarianidi 1973). In Armenia, substantial coroplastic collections derive from Agarak (11 specimens), Shengavit (7), Mokhrablur (4), Harich (3), and other sites.

Given the coroplastic art's pan-Near Eastern distribution, chronological contemporaneity, and stylistic-functional commonalities, we contextualize South Caucasian and Armenian Highland specimens within the broader Mesopotamian and Central Asian—particularly Turkmenistani—figurine traditions.

The Early Bronze Age witnessed socio-economic transformations that reshaped worldviews and gave rise to new religious-ritual systems. These developments catalyzed artistic innovation, producing stylistically distinct representations of the female form that diverged significantly from earlier traditions. Specific coroplastic details potentially emphasize ethnic characteristics.

Typological Classification

As elsewhere in the ancient world, South Caucasian and Armenian figurines predominantly feature fine-grained, high-quality clay, modeled according to contemporary aesthetic principles in a flat, conventional style. The current corpus comprises approximately 58 complete or fragmentary anthropomorphic figurines: 40 female, 8 male, and 10 of indeterminate gender.

Armenian Highland Early Bronze Age female figurines, excepting a single black tuff specimen from Shengavit, are consistently terracotta. Two anthropomorphic representations on ceramic vessels include a relief depicting a woman in a silent adoration posture. Female figurines

characteristically display stylized-schematic modeling with flat, rectangular compositions. Sexual characteristics associated with childbirth and nursing appear as conventional symbolic markers.

Primary Typological Groups:

Based on morphological analysis emphasizing leg configuration, the corpus divides into:

Group A: Standing figures with separated legs terminating in straight or pointed projections (10 examples) - arms extended laterally (7 examples)

Group B: Standing figures with curved or straight-cut bases (9 examples) - likely representing women wearing long robes. Notably, these lack explicit feminine symbolism

Group C: Seated figures (2 examples from Tyulin Tepe) with leg dividers - characteristic of Chalcolithic coroplastic tradition

Secondary Classification by Arm Position:

- Lateral extension (16 examples)
- Lateral and upward extension (4 examples)
- Bent at elbows, raised at right angles—adoration posture (3 examples)
- Folded across chest (1 example).

Additional Morphological Features:

- Back treatment: straight (7 examples), narrow with pronounced hips (8 examples)
- Breast forms: conical and spherical (17 examples), punctate decoration (1 example)
- Head shapes: spherical (8 examples), conical (5 examples), truncated cone (1 example)
- Decorative elements: braids (2 examples), necklaces (4 examples), incised star symbols (1 example), facial features (5 examples), navel marks (3 examples), body contour lines (6 examples), vertical back incisions (2 examples), leg-dividing lines (2 examples).

Since morphological features do not always correlate, classification prioritizes leg position followed by arm configuration.

First Group: Schematic Representations

Type I: Geometric Abstraction

This group exhibits highly stylized, schematic modeling characterized by flat, rectangular torsos devoid of anatomical detail. Heads, arms, and occasionally legs manifest as simple protrusions. The laterally extended arms suggest symbolic readiness for embrace. Despite their diminutive scale, these figurines bear concentrated fertility symbolism: the pubic triangle rendered through rectangular incisions, female genitalia indicated by vertical lines, and breasts represented as conical protrusions emphasizing procreative power. Comparable specimens derive from Mokhrablur, Shengavit (lacking pubic representation), Harich, Agarak, and other sites (Simonyan & Khachatryan 2005: 57).

Type I figurines, with their distinctive compositional and symbolic iconography, characterize virtually all early agricultural cultures across Western Asia (Tepe Gawra, Çatalhöyük, Hacilar), Central Asia (Altyn-depe, Yılanlı Tepe), and the North Caucasus (Nalchik) (Esayan 1980: 9-11).

Type II: Naturalistic Female Forms

The second typological group captures the corporeal allure of sexually mature women through supple bodies, narrow waists, broad hips, and full thighs. These nude figures feature arms extended laterally or, occasionally, laterally and upward, incorporating fertility symbols: conical or spherical breasts, vertical genital clefts, and incised pubic boundaries.

An exemplary specimen from Agarak depicts a voluptuous woman with a cord draped across the chest—a coquettish detail (Badalyan & Avetisyan 2007: 27). Type II figurines demonstrate greater naturalism than Type I specimens from Mokhrablur and Shengavit.

Type III: The Pregnant Woman—A Unique Specimen

The Agarak assemblage yielded an exceptional naturalistic sculpture of a pregnant woman in compact composition. The

ovoid body, tapering downward, features an enlarged, pit-shaped navel and explicit female genitalia. Short legs, slightly separated and tapering toward the extremities, support the disproportionately swollen abdomen of advanced pregnancy.

The head appears as a small protrusion, broken at its upper portion. Arms bent at the elbows bring open fingers to rest on the neck, suggesting respiratory distress—the labored breathing of parturition. The back bears incised squares and diagonal lines, interpreted as representing a draped shawl (Tumanyan 2012: 40).

This represents the sole example within the entire corpus depicting arms folded across the chest, a posture conveying specific symbolic significance. Ancient Near Eastern iconography typically portrayed women as beings of desire, sexually available with outstretched arms in embracing poses. The Agarak figurine's arm position suggests temporary renunciation of pleasures during late-stage pregnancy.

Ritual Aspects and Symbolic Practices

The terracotta sculpture comprises two vertically sawn halves, which were subsequently bonded with bitumen—evidence of ritual fertilization. The figurine was bisected, a seed (possibly grain) placed within the abdomen, then rejoined with resin. This ritual act embodied sacred concepts of fertilization and pregnancy, amplifying the Great Mother Goddess statue's supernatural attributes (Simonyan 2016: 71).

Incorporating burnt, crushed animal bones and grain into female figurine clay matrices represents an ancient ritual-magical practice (Demirhanyan & Frolov 1985: 72). At Dolní Věstonice in Moravia, over 30,000 years ago, special dwellings contained hearths where clay figurines of animals and women were fired, their clay deliberately mixed with burnt, crushed animal bones (Klíma 1963).

This ritual tradition is reflected in early agricultural Cucuteni-Trypillia figurines, whose clay matrices incorporated wheat and cereal grains (Formozov 1980: 71; Kushnareva & Chubinishvili 1970: 163). The Agarak figurine's symbolic content and chronology align closely with those of Trypillian specimens that embody concepts of fertilization and fertility.

Garegin Tumanyan identifies the pregnant woman of Agarak as representing the Mother Goddess of fertility (Tumanyan 2012: 40, 92).

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Significantly, a comparable pregnant woman sculpture from Altyn-depe, Turkmenistan, features a belly adorned with magical symbols—sharp-pointed, almond-shaped depressions—intended to ensure safe childbirth (Masson & Sarianidi 1973: 88). Both Armenian and Turkmenistani pregnant woman figurines likely represent female deities protecting motherhood and assisting in childbirth.

Type IV: Composite Construction with Ritual Posture

The fourth subgroup exhibits characteristics of three-dimensional sculpture. The Shengavit specimen depicts a figure in adoration posture—arms raised in supplication. The cylindrical torso contrasts with a narrow back and broad hips.

Despite its diminutive scale, this figurine represents sophisticated composite construction: head, torso, and hips were manufactured separately. Perforations on different torso sections indicate that wooden dowels joined the components. The compositional scheme recalls the celebrated “Snake Goddess” from Crete, though executed with less technical refinement (Simonyan 2016: 71).

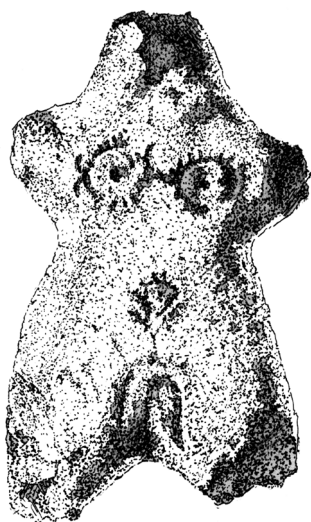
Type V: The Shengavit Masterpiece—Stone Sculpture in Miniature

The apogee of generalized-realistic style in anthropomorphic art is exemplified by the female figurine discovered in 2000 at Shengavit Excavation 2, Stratum II. Found on the floor of a monumental hall (approximately 150 m²) at a depth of 120 cm, this black tuff sculpture represents a tour de force of miniature carving (Simonyan & Rotman 2023).

The nude female form was achieved through polishing, incising, and punctate techniques. Despite its small

dimensions, the sculpture projects a monumental presence. The ancient artisan preserved the canonical principles of Shengavit culture while demonstrating individual artistic vision.

Consistent with Shengavit conventions, the figurine lacks hands, feet, and facial features; head and arms manifest as simplified protrusions. The overall composition suggests a five-pointed star stretched vertically. The sculptor masterfully rendered rounded hips and full thighs. Most striking are the breasts, composed of spherical dot arrays resembling stellar clusters.



Astral Symbolism and Divine Associations

The “star” concept permeates both the figurine’s outline and the stellar breast imagery. In ancient Near Eastern theology, the star symbolized the love and beauty goddesses, Ishtar and Astarte. Logically, the Armenian goddess Astghik’s name derives from the celestial “star” (Armenian: *astgh*). This Shengavit figurine potentially represents the earliest material embodiment of the star-love-beauty-Astghik conceptual complex (Simonyan 2004: 59-61).

While previous Armenian Highland Early Bronze Age figurines were predominantly terracotta with flat, rectangular, schematic forms, the Shengavit tuff sculpture manifests an impulse to capture—perhaps poetically interpret—female corporeal beauty. Through economical expressive means, the ancient sculptor rendered a desirable female form, employing a generalized, realistic style to convey essential anatomical features and allure.

The sculptor clearly possessed intimate knowledge of female anatomy, yet, constrained by Early Bronze Age conventions, focused primarily on the torso, emphasizing fertility and feminine symbols (Simonyan 2016: 72).

Early Bronze Age figurines functioned as household idols symbolizing fertility, embodying motherhood concepts, and protecting parturient women. The stone medium, anatomical verisimilitude, careful execution, and generalized realistic style indicate that this Shengavit specimen held exceptional significance—likely crafted by a master artisan as the protective love and motherhood goddess of an elite lineage.

Type VI: “Bird-Headed” Fragmentary Figurines

This assemblage comprises fragmentary upper-body figurines from Jrahovit, Shengavit, and Agarak, characterized by laterally extended arms and heads, which are either helmeted or terminate in conical points, with well-formed spherical or conical breasts.

One Agarak specimen features perforations near the ears, possibly representing eyes. Another displays back incisions potentially symbolizing hair (Tumanyan 2012: 42). Conical-headed figurines also appear at Norshun Tepe and Korudju Tepe (Tsopk).

A particularly intriguing fragmentary specimen from Mokhrablur preserves the head and upper torso with laterally extended arm protrusions (Sardaryan 2004: 460, fig. 53). Well-defined conical breasts suggest female gender. Yet, the robust neck terminates in a flat circular head adorned with a cockade-like protrusion extending to the nose tip. Round perforations flanking the nose represent eyes and may depict a warrior—possibly an Amazon.

Iconographic Analysis: Nudity, Ornamentation, and Fertility Symbolism

The first group of figurines consistently depicts nude females without supplementary ornamentation, except for simple back incisions on two Agarak specimens (possibly hair) and neck lines on the Mokhrablur figurine (representing a necklace). Multi-row neck decorations characterize the second group of volumetric sculptures.

First group’s schematic nude female figurines emphasize fertility symbols: prominently rendered pubic triangles, navels, and especially breasts. Shengavit, Agarak, and Mokhrablur sculptures feature naturalistically rendered breasts with emphasized nipples, reinforcing the nurturing mother archetype.

SECOND GROUP

This group comprises female figurines characterized by volumetric-spatial compositions, lacking legs and featuring either straight or fractured bases in their lower portions.

Type VII

This type is represented by a unique specimen discovered fortuitously at Mokhrabyur. The figurine exhibits distinctive sculptural characteristics: widespread, slightly elevated arms, a broken, rounded head projection, conical breasts, and a navel indication (Sardaryan 2004: 233, Table LIX). The modeling of the hips and lower extremities merits particular attention. In contrast to the established conventions of Early Bronze Age coroplastic art in Armenia's first group—where female figurines' legs were rendered as separate, downward-tapering projections—this specimen lacks legs entirely. The sculpture terminates in an arched contour delineating the pelvic region. Its modeling evokes the characteristic compositional schemes of Central Asian female figurines (Masson & Sarianidi 1973: 28-30).

Type VIII

This type is exemplified by one of the terracotta figurines from Harrich (Khachatryan 1975: 37). The specimen features a straight, cylindrical torso with arms extended laterally; the head is broken. A vertical line descending along the torso's center likely symbolizes the vulvar cleft. According to Stepan Esayan, a shepherd's staff positioned on the shoulder indicates both the depicted figure's occupation and masculine gender (Esayan 1980: 11). However, Esayan's arguments for male attribution lack a substantial foundation. Our observations indicate that laterally extended arms constitute a characteristic feature of female figurine representations. Regarding the purported shepherd's staff, the cord-like applied ornament on this sculpture's shoulder more closely resembles a braid rather than a staff head. Thus, the female identification of this representation appears more probable.

Type IX

Sandro Sardaryan's posthumously published work includes a drawing of a terracotta human head sculpture discovered in the upper stratum of Kghzyak Blur, which the author identifies—without substantiation—as a female head. He dates it to the Chalcolithic period and correlates it with Shengavit layers 2-4 (Sardaryan 2004: 138, 156, 157, Table XXIV.1). According to the drawing, the head sculpture displays luxuriant, wave-decorated hair, a narrow forehead,

and an oval face with a straight relief nose descending from forehead to chin, curved at the tip. The nostrils are rendered as depressions. Below the nose, the mouth appears as a downward-curving cleft, suggesting tightly pressed lips. The eyes are fashioned with elongated obsidian inlays set into the clay. The impression conveyed is one of intense scrutiny directed at the viewer. This canonical face sculpture distinguishes itself through its expressiveness and manufacturing technique.

If this piece indeed belongs to the Late Neolithic or Chalcolithic period¹⁹ (Early Bronze Age according to the publishing author), it represents the earliest known example of figurines with elongated obsidian-inlaid eyes. According to beliefs prevalent among Armenia's ancient inhabitants, obsidian possessed apotropaic properties (Simonyan 1988: 79-81). This sculpture documents the earliest known instance of depicting eyes through elongated fragments of magically potent obsidian, lending distinctive expressiveness to the facial representation. We propose dating this figurine to the Chalcolithic phase.

CONCLUSIONS

The coroplastic art of the ancient Near East—particularly Mesopotamia, Anatolia, and Turkmenistan's early agricultural cultures—characteristically depicts females in seated or semi-recumbent positions with narrow waists, elongated yet volumetric fertile bodies, and ample hips. The seated or semi-recumbent position also characterizes figurines from the early phase of the Tripolye culture, which in their developed phase were represented in standing positions (Bibikov 1953: 215).

The succulent and voluptuous figures characteristic of early agricultural cultures were replaced during the Early Bronze Age by austere, schematic representations. Another fundamental transformation involved the replacement of the seated and semi-recumbent positions typical of Neolithic-Chalcolithic coroplastic art with standing anthropomorphic sculptures in the Early Bronze Age. Garegin Tumanyan also discusses this stylistic transformation in Armenian small-scale sculpture (Tumanyan 2012: 39, 91).

¹⁹ Sandro Sardaryan dated it to the Early Bronze Age and the period of the Copper or Chalcolithic Age.

The coroplastic art of the Armenian Highlands, while sharing commonalities with the minor sculpture of ancient Near Eastern centers, exhibits distinct characteristics. In the northern regions of the Armenian Highlands, female figurines typically lack head ornamentation, with heads represented as simple projections or absent. Conversely, in the southern areas of the Armenian Highlands—perhaps due to stylistic influences from Mesopotamia and Central Asia—women's figurine art was characterized by modeling of heads and facial features, hair ornamentation, and neck decoration with necklaces.

In the ancient Near East, particularly in Turkmenistan, female figurines with decorated heads and luxuriant hair falling to the shoulders—in some instances extending to the waist—were widespread. The Early Bronze Age cultures of the South Caucasus are characterized solely by the depiction of braids on the back or shoulders.

Generally, the first group of South Caucasus Early Bronze Age figurines exhibits the principle of individual representation of unadorned, naked-torso figurines (virtually no duplicate examples exist). They typically bear only symbols of childbearing and nurturing. This stylistic approach initially appears monotonous, yet examination reveals a diversity of figurine types that most likely conveyed different semantic interpretations.

The Shengavithian culture's various sites document localization in female idol iconography, with figurine representations at different monuments exhibiting distinctive, unique modeling. The "lifeless" coroplastic art of Shengavit and Mokhrabyur, with its flat, rectangular composition saturated solely with childbearing and nurturing symbols, contrasts markedly with Agarak's plump female figurines imbued with vivacious immediacy.

Single-row and multi-row lines symbolizing necklaces on figurine necks—some featuring pendant-amulets in their central portions—were widespread in southern Armenia, Mesopotamia, Anatolia, and Turkmenistan. As in Turkmenistan (Namazga Tepe, Altyn Tepe), some Armenian Early Bronze Age figurines' necklaces are decorated with raised, spherical lines indicating bead composition.

The geometric ornaments incised on figurines' shoulders and backs, widely distributed in Mesopotamia and particularly Turkmenistan—triangles with “herringbone” patterns, eight-pointed stars, crosses, angles, and other motifs, as well as incisions symbolizing trees of life oriented upward and downward, and multi-row belt-lines on hips—are absent from Armenian terracotta figurine art. Exceptions include the pregnant woman figurines from Koruchu Tepe, Tepecik, and Agarak. The latter's neck, like the Koruchu Tepe figurine, bears engraved horizontal and vertical lines. In contrast, the back features squares and long oblique lines formed from incised marks (Tumanyan 2012: 40). The Tepecik idol's surface is entirely decorated with intersecting lines, star ornaments, and other patterns.

Both Armenian and Turkmenistani sites have yielded large quantities of terracotta figurines broken in antiquity (Masson & Sarianidi 1973: 90). Moreover, intact figurines are few in number (Masson & Sarianidi 1973: 96). According to Vadim Masson & Viktor Sarianidi, this phenomenon results from figurines being intended for single-use magical ceremonies, after which they could be broken (Masson & Sarianidi 1973: 87). Garegin Tumanyan, examining numerous archaeological and ethnographic data, concluded that figurines were intentionally damaged during calendrically significant events, particularly within New Year ritual systems (Tumanyan 2012: 93-95).

Turkmenistani figurines with rounded shoulders, lacking arms, heads, and breasts, characterize Chalcolithic art (Masson & Sarianidi 1973: 93, 95). In Armenia, this iconographic style gained wide distribution during the Early Bronze Age. Turkmenistani coroplastic art characteristically features female figurines with narrow waists, though examples without formed narrow waists exist—a style also characteristic of Armenia's first group of small-scale sculpture.

Ancient world female figurines generally symbolized priestesses of love, intended to satisfy male sexual inclinations. This is vividly reflected in the naked depiction of female bodies and postures, suggesting readiness for embrace and pleasure. In Armenian Highland small-scale sculpture, this concept is expressed through spread arms and legs, symbolizing readiness

for embrace in female figurine structures. This style also characterizes Turkmenistani coroplastic art (Masson & Sarianidi 1973).

Notably, the same posture of female figurines suggesting readiness for pleasure and male seduction in southern Mesopotamia—particularly in Elamite small-scale sculpture—is represented by the pose of lifting voluptuous breasts from below with both hands, as if inviting male “hospitality” and pleasures (dozens of such figurines are displayed in the Louvre Museum).

Perhaps these coroplastic peculiarities demonstrate different ethnic elements’ tastes and national characteristics regarding love and erotic imagination, reflected in sculptural art. Had Early Bronze Age love poetry samples survived, these artistic nuances would, in our opinion, have been reflected in poetic folklore as well.



The essence of arm-spreading symbolism is revealed by the Agarak figurine’s arm position in the final stage of pregnancy. Sexual intercourse would have been prohibited for women in childbirth to avoid harming the emerging offspring. An essential feature of this figurine’s structure is the placement of hands on the chest—a posture characteristic of Early Bronze Age male figurines. For women, folded arms on the chest seemingly symbolize rejection of embrace and intercourse during pregnancy.

We consider the interpretation of arm projections as unfounded, not as laterally extended positions ready for embrace, but as imitations of arms folded on the chest. This baseless viewpoint, initially proposed by Bibikov and termed “Gesture of the Fertility Goddess” (Bibikov 1953: 223, 224, 237, 271), subsequently circulated in works by Harutyun Martirosyan (1961: 39) and Garegin Tumanyan (2012: 39, 92), requires revision. The pregnant woman sculpture of Agarak completely refutes the interpretation of the projections as modeled arms folded on the chest. Here, the canonized Early Bronze Age plastic art clearly shows a pregnant woman with arms folded on her chest, demonstrating the motivation for chest-folding and its semantics.

THE SYMBOLISM AND MEANING OF COROPLASTIC ART IN THE SHENGAVITHIAN CULTURE

The art of anthropomorphic and zoomorphic figurines constitutes a characteristic feature of virtually all cultures throughout the ancient world. This prevalence raises fundamental questions: What purposes did these figurines serve, and what was their practical and symbolic significance? Were they objects of domestic utility, or did they connect to primitive worldviews, belief systems, and spiritual-religious spheres? Researchers have advanced numerous interpretations—some complementary, others contradictory—in attempting to elucidate these questions.

Progress in understanding this complex issue may be achieved through a comprehensive examination of multiple factors: the figurines' manufacturing techniques, morphology, postures, typological classifications, ornamental details, and discovery contexts. Additionally, their relationships with other cultural traditions and evidence from written and ethnographic sources are important. Prevailing scholarly interpretations suggest these objects functioned as household idols symbolizing the Primordial Mother or the Great Goddess of Fertility. Such figurines were believed to assist women in childbirth, repel malevolent forces, and ensure fertility and agricultural abundance (Masson & Sarianidi 1973: 47-48, 122-131).

According to established belief systems, as documented through archaeological and textual evidence, figurines were deposited in specific, ritually significant locations: beneath dwelling foundations, before entrances to cultic chambers, opposite gateways, at the centers of houses, upon platforms constructed from reeds, above bed headboards, and in similar contexts of ritual importance (Garney 1935: 65-71).

At Altyn Tepe, female figurines have been discovered both beneath house foundations and within elite burial contexts (Masson & Sarianidi 1973: 84). The anthropomorphic figurines from Shengavit have emerged from both cemetery contexts and the upper strata of the settlement. Significantly, these specimens have been recovered primarily from chambers featuring ritual niches, dated to approximately 2,700-2,500 BCE. This distribution pattern supports the conclusion that

the art of terracotta and stone figurines experienced their flourishing during the second phase of the Early Bronze Age. Moreover, to date, no examples of coroplastic art have been recovered from monuments attributable to Early Bronze Age I.

A remarkable discontinuity presents itself: the Chalcolithic terracotta figurine tradition of the South Caucasus appears absent from Early Bronze Age I sites, only to reemerge during Early Bronze Age II. This enigmatic hiatus remains unexplained, especially since the Neolithic-Chalcolithic miniature plastic arts of the Near East and Central Asia show continuous, uninterrupted development into the Bronze Age.

The practice of depositing female figurines in mortuary contexts has generated diverse interpretations. Some scholars have interpreted these as symbolic substitutes intended to satisfy male sexual desires in the afterlife, replacing actual female sacrificial victims (Khlopin 1962: 67). Conversely, Vadim Masson and Viktor Sarianidi maintained that terracotta figurines possessed ritualistic significance, employed during ceremonial rites and magical practices, while more carefully crafted specimens served as household idols embodying various spirits and deities (Masson & Sarianidi 1973: 86-87). Alternative interpretations suggest these female figurines may have functioned as children's toys.

European travelers documented anthropomorphic figurines among numerous tribes maintaining pre-agricultural lifestyles, where such objects symbolized venerated ancestors and various spiritual entities. The Ditsuk and Nanai peoples each maintained guardian spirits with distinctive iconographic conventions, whose effigies were stored in granaries or beneath the thatched roofs of timber dwellings. These sacred objects were displayed publicly only during annual ceremonial festivals (Lopatin 1922: 186).

Human-form fetishes achieved widespread distribution across numerous early agricultural cultures (Bibikov 1953: 252). Ucko published a dedicated analysis examining the varied uses and cultic nature of terracotta figurines symbolizing the Great Mother, recovered from Near Eastern archaeological contexts (Ucko 1962). The veneration of terracotta figurines was extensively practiced in India as well. Female figurines from Harappa were discovered with cup-shaped lamps positioned

on either side, in which aromatic oils were burned as offerings to the goddess (Mackey 1937: 260-263).

THE PANTHEON OF FEMALE DEITIES IN THE EARLY BRONZE AGE

Until recently, scholarly literature on Armenian studies has interpreted Early Bronze Age small-scale coroplastic art solely as symbols of the Great Mother, patron of fertility and childbirth. However, written sources from the ancient Near East dating to the 3rd-2nd millennia BCE reveal a diverse pantheon of female deities, which finds its classical expression in ancient Greek myths and legends. The morphological diversity of figurines from the Armenian Highlands, along with their distinctive anatomical characteristics, suggests that different figurine types in our region were likewise dedicated to various deities within the female pantheon.

According to Garegin Tumanyan, the morphological particularities of terracotta figurines—including marked differences in color, firing quality, clay composition, and preservation levels—provide grounds for hypothesizing that they “could have represented different supernatural beings” (Tumanyan 2012: 93).

Vital information concerning anthropomorphic figurines is preserved in a cuneiform inscription of magical character from the library of the Assyrian king Ashurnasirpal, which researchers believe was originally composed during the final quarter of the 3rd millennium BCE (Gurney 1935). This written source, conventionally designated the “Evil Forces” tractate, presents remarkably sophisticated and developed ideological conceptions. The figurines’ hips and arms bore inscriptions of spirits’ names, their domains of supernatural authority, and instructions for manufacturing spirit figurines. According to these texts, female figurines possessed canonical iconographic details of ritual vestments. The inscription specified the spirits’ powers, the particular ordeals from which they could provide protection, the appropriate prayers for invoking them, and related ritual prescriptions (Gurney 1935: 69-71).

The functional significance and practical application of Early Bronze Age figurines remain problematic. While Group I

figurines were evidently intended for viewing in standing positions, their construction renders them inherently unstable. Female figurines typically feature legs that taper toward the extremities, consequently requiring either supplementary supports or partial burial in the ground to maintain an upright position. This compositional approach, along with rock art compositions, suggests that female figurines were displayed not only individually but also in collective groupings of multiple representations (as at Pulus).

MALE FIGURINES

For an extended period, scholarly consensus maintained that the Shengavithian culture lacked a tradition of male figurine production. This assumption rested on the premise that prehistoric society operated under matriarchal structures, thus logically producing exclusively female figurines. However, as demonstrated in our historical analysis, Early Bronze Age Armenia had developed a complex economy with an advanced social structure, centered on large patriarchal extended families. The patriarch, who led these kinship groups, naturally sought to accumulate wealth for transmission to his descendants.

To date, approximately one dozen male miniature sculptures have been discovered, predominantly from the Shengavit site. Both female and male figurines exhibit distorted anatomical proportions in their modeling. However, male figurines typically feature heads with simplified facial features, while the nose, eyes, and mouth remain clearly distinguishable. Arms and legs are rendered in schematic, generalized forms.

The figures are depicted nude with emphasized masculine attributes. Both female and male figurines were crafted using identical conventional schematic-flat compositional styles, perhaps indicating their shared nature as cult objects. The relatively limited quantity of male figurines suggests their employment in specific (possibly seasonal?) rites and cultic ceremonies (Masson & Sarianidi 1973: 28-30).

Male figurines can be classified into the following groups based on these characteristics:

- a) Leg positioning: spread apart (4 examples) or joined together (2 examples)
- b) Hand representation: clenched fists (2 examples) or open fingers (2 examples)
- c) Torso form: flat-rectangular (5 examples) or cylindrical (2 examples)
- d) Head modeling: with facial features (3 examples) or without (1 example)
- e) Belt presence (3 examples)
- f) Phallus presence (5 examples).

Type I

Discovered at the Agarak settlement, this small terracotta figurine features tapering, projection-like legs, one of which is broken. The torso is formed with a narrowing above the hips on both sides. The shoulders are rounded, the head broken. The masculine principle is emphasized. This figurine differs significantly from known Shengavithian culture male figurine phallic representations.

Type II

Two male figurines carved from tuff were discovered at the Shengavit settlement. One is complete (Sardaryan 2004: 459, fig. 52), while only the shoulders and head survive from the second (Simonyan 2013). The latter was discovered in 2000 near a ritual niche in a large 150-square-meter hall of the upper horizon, alongside the black tuff “Astghik” figurine. Radiocarbon dating places these figurines at 2,700-2,500 BCE (Simonyan & Rothman 2015: 10-11). These male figurines embody powerful physiques with broad shoulders, round heads held high, and figures imbued with dignity.

Sandro Sardaryan’s discovered figurine features a rectangular, flat-cut lower section and a flat torso without leg definition. The impression suggests a man depicted wearing a full-length robe extending to his feet. It has a backward-tilted, round head, as if viewing someone from above. The circular, flat face displays eyes represented by depressions, a relief nose, and a mouth indicated by a horizontal incised line. From the short, robust neck base, the oblique, broad shoulders extend

slightly wider than the torso, emphasizing masculine power. Well-formed arms pressed to the body, with elbows bent and clenched fists placed on the chest. The emphasized phallus appears at waist level, with a horizontal relief belt depicted on the back. This simple figurine presents a monumental image of a powerfully built man.

The second figurine, carved from orange tuff, is incomplete. The spherical head and straight, broad shoulders survive.

Type III

Discovered in the aforementioned chamber with the incomplete figurine, this terracotta specimen repeats the dignified representation of its predecessors. The hands are again placed on the chest. However, it features widely spread legs, appearing depicted mid-stride. The head and one hand are damaged, rendering facial features illegible.

Type IV

This most famous terracotta figurine, frequently republished, was also discovered at Shengavit (Sardaryan 1967: 200, table LXX, fig. 2). It presents a volumetric composition of a nude, standing man with an emphasized phallus. The thick, elephantine legs are widely spread, and the hands are placed on the chest, in this case with open fingers. The head is round, the face flat and circular, with eyes formed by dots and a straight, extremely long nose clearly distinguished.

Type V

A 15-centimeter-high marble figurine was discovered in the upper horizon of Black Hill 2 (Sardaryan 2004: 156, 170). Judging from the published drawing, this unique sculpture with its smooth-polished cylindrical torso differs substantially in manufacturing technique, stylistic characteristics, and structure from other known Neolithic-Early Bronze Age sculptures (Sardaryan 2004: 158, table XXIV.2).

The published image displays a composition characteristic of sculpture in the round. The spherical head with headgear perforation presents a frontal face bordered by an incised circle, featuring circular eyes as depression-like hollows flanking the relief nose. The nose is bordered on both sides by incised lines ascending the forehead to the face-bordering



circle. A horizontal straight cleft represents the mouth. Lips and chin are articulated. Below the disproportionately long, thick neck, on the chest, appears a triangular relief “breastplate” with a sharp upward point and a flat-polished surface, flanked by circular relief projections with flat-cut, polished surfaces representing breasts. The arms, pressed to the body, bend at right angles at the elbows and merge at the abdomen to create a relief belt impression. Below these appears the phallus, flat-cut and polished on the frontal surface. This created projection, as with the breasts, gives the appearance of a straight-cut tree branch.

The figurine’s lower portion is broken, but clearly it must have depicted a standing man. The authenticity of this figurine, dated to the Neolithic-Chalcolithic period, is, in our opinion, questionable, as the sculpture’s stylistic and morphological characteristics differ significantly from those characteristic of Near Eastern Neolithic-Chalcolithic sculptures.

CONCLUSIONS

The male figurines of the Shengavithian culture are imbued with masculine symbolism, featuring emphasized, disproportionately large male genitalia with erect phalli ready for insemination. This indicates these figurines’ connection to fertility cults and their representation of clan-progenitor ancestors. Similar figurines have been discovered at other Shengavithian culture sites, including Khizanahat, Kvatskhelebi, Amiranis Gora, and Urbnis (Esayan 1980: 11).

In contrast to female figurines, male specimens are crafted with simplified facial features. Their hands are typically placed on the chest with either clenched fists or open fingers. The posture—head held high, seemingly gazing down at the viewer from above—imparts a distinctive dignity to these ancestral-male figurines.

ANTHROPOMORPHIC FIGURINES

These are schematic, simplified sculptures lacking expressed sexual characteristics. Their anthropomorphic nature can only be understood conditionally based on torso structure. They are primarily crafted from terracotta and tuff, with individual



cases using friable, low-quality stones. Some examples feature well-polished surfaces with perforated holes at the upper edge. Anthropomorphic figurines are classified into the following types based on torso structure (flat-rectangular: 5 examples), head features (with facial features: 3 examples; without: 1 example), and the presence of depressions symbolizing navel (6 examples), mouth (2 examples), and eyes (6 examples), as well as horizontal mouth clefts (2 examples).

Type I

One cult object with a rectangular, flat torso has a body distinguished from its round head by a groove-like neck incision. The face displays a large nose and smiling mouth represented as a wide cleft (Simonyan 2016: 72).

Type II

Shengavit excavations have yielded anthropomorphic figurines carved from black and red tuff with rectangular or triangular compositions, featuring central depressions symbolizing navels or perforated holes in upper sections (Simonyan 2016: 72). This type corresponds to Vadim Masson's third group in his classification of anthropomorphic figurines.

Type III

A striking example of anthropomorphic sculpture is the twin figurine discovered at the Early Bronze Age site of Amiranis Gora (also called Tavshan Tepe or Rabbit Hill) near Akhaltsikhe. This sculpture depicts fairy-tale-like, perhaps Siamese twins, bifurcating from a unified base with curved terminating heads. Black obsidian fragments symbolizing eyes are inset in the frontal portion²⁰. Both the twin-depicting sculpture and the obsidian eye inlays attest to the figurine's magical nature, likely serving as a guardian idol intended to repel evil forces from homes and settlements.

Type IV

A unique type of anthropomorphic figurine is the obsidian blade discovered at Shengavit in 2000, where groove-like removals along the blade edges impart an anthropomorphic figure appearance to the tool (Simonyan 2014). The Satan Dar surface obsidian blade features groove-like removals on two opposing sides, but only in the tip section, which Sandro

²⁰ An exhibition at the Geological Museum operating within the territory of the Akhaltsikhe Fortress.

Sardaryan dates to the Middle Stone Age (Sardaryan 2004, table XX).

Type V

A volumetric sculpture example is the terracotta figurine from Agarak featuring a cylindrical torso indented at the center, with arms raised in an adoration pose (one arm preserved). The upper platform's center contains a narrow hole, 2 centimeters deep, likely intended for securing the now-lost head. As noted, a female figurine from Shengavit with an adoration posture and cylindrical torso also features such holes.

Telman Khachatryan records similarities between the anthropomorphic support from Harrich and the Pulur idols in their "facial features" (Khachatryan 1975; Kosay 1969: 105).

PHALLIC PENDANT-AMULETS

A distinctive domain within the Shengavithian culture's anthropomorphic small-scale plastic art comprises the collection of phallic-shaped pendant-amulets symbolizing fertilization and the masculine principle. These were crafted from various stone types of different colors (river stone, tuff, limestone). One phallic-type pendant-amulet was fashioned from precious serpentine featuring green and white hues.

Approximately ten pendant-amulets were discovered during the 2007-2012 excavations at the Shengavit settlement (Simonyan 2013: 15, fig. 11). Two additional amulets had been found at Shengavit before our excavations (Sardaryan 2004: 224, table CXXXIV, fig. 1; p. 233, table LIX, fig. 5). Phallic-shaped pendant-amulets were also recovered during Shengavit's 2020-2022 excavations. To date, one and a half dozen such sculptures have been discovered.

These are naturalistic stone miniature sculptures with deep-carved grooves at the bases of their heads, designed for threading cords and wearing as amulets. These pendants were discovered in both settlement and cemetery contexts (Simonyan 2013: 15, fig. 11). What were these objects, and what was their functional significance?

It is well-established that during 1,500-600 BCE in Armenia, large stone phalli were widespread symbols representing

fertilization and the cult of powerful clan-progenitor ancestors. We propose that these distinctive small amulets, designed for neck suspension, served as distinguishing insignia of priestesses of love, indicating their bearers' primary occupation. Significantly, these priestesses operated in populous urban settlements frequented by numerous visitors for various religious, military, commercial, and other purposes. The presence of women engaged in such professions further substantiates Shengavit's character as an urban settlement.

ANIMAL FIGURINES

Animal figurines have been discovered at Shengavit, Mokhrablur, Jrhovit, Fioletovo, Harrich, Nakhichevan's Mokhrablur 1, Amiranis Gora, Blur, Göy Tepe, Agarak, the Lake Van basin, and other sites. Known examples include miniature sculptures of bulls, rams, goats, dogs, horses, lions, pigs, cats, and doves (Sardaryan 2004: 234, table LXXXVI), as well as other animals. The Shengavithian culture particularly favored domestic animal figurines, indicating these animals' venerated status.

From ancient times in the Near East and Armenia, the cult of the bull and the ram was widespread, serving as primordial symbols of the masculine fertility principle and procreation. It is therefore not coincidental that figurines of precisely these animals achieved the widest distribution during the Bronze Age.

Miniature sculptures of dogs, pigs, and horses are more limited in number, possessing both mythological substrata while also attesting to these animals' important economic roles. A comprehensive study of Shengavithian culture figurines creates extensive opportunities for Early Bronze Age historical-cultural and mythological reconstructions, which are reflected in Armenian wonder tales (Hayrapetyan 2016).

Animal miniature sculptures are crafted with skilled mastery, more realistic and vibrant than anthropomorphic figurines. Most are produced volumetrically in a simple, naturalistic style. Through accurate body delineation and expression of characteristic animal movements, their species and breed

characteristics are represented. Some sculptures feature generalized representations, while others exhibit realistic modeling.

Animal sculptures were likely attributed magical significance. This is evidenced by traces of red pigment preserved on certain figurines, depressions (“stars”) on bulls’ foreheads, and the formation of rams’ eyes using obsidian pieces (Shengavit). This last phenomenon merits special examination, as, through burial ritual reconstruction and linguistic observations, we have concluded that throughout the entire Bronze Age, Armenian Highland inhabitants considered obsidian a magical stone endowed with the power to repel evil forces (Simonyan 1988: 79-81).

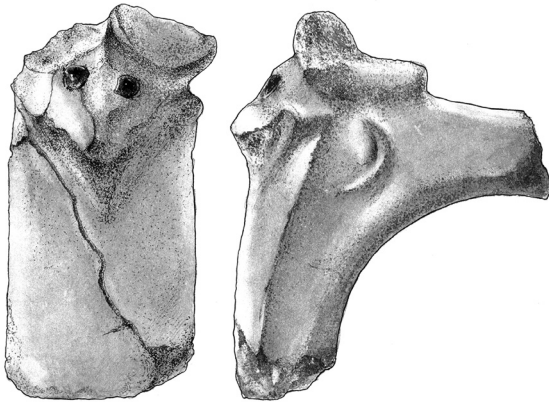
Before the Shengavit discovery, the only known terracotta figurine with eyes formed from obsidian pieces came from the site called Amiranis Gora near Akhaltsikhe (Chubinishvili 1971). Apotropaic properties were perhaps also attributed to the sculpture with ram protomes in a horseshoe-shaped composition, discovered at Shengavit. It was found in an agricultural tool context—mortar and pestle—alongside pottery vessels characteristic of the 2700-2500 BCE period, within the same dwelling. A drawing of a human head sculpture with obsidian-inlaid eyes also appears in Sandro Sardaryan’s book (Sardaryan 2004).

BULL FIGURINES

Bull figurines have been discovered at Shengavit, Mokhrablur, Jrhovit, Harrich, Aygevan, Gegharot, Fioletovo, the Aghstev and Van basins, Khopk, the Kars Plateau, the Kharpert valley, and other sites. These widely distributed figurines emphasize the animals’ essential characteristics: massive bodies, short legs, long tails pressed against the body, powerful necks, curved horns, triangular projecting muzzles, and other features. As a rule, the hind legs—and in certain sculptures, the forelegs as well—are rendered as fused.

Terracotta miniature plastic art represents two distinct bovine breeds. One depicts a powerful, well-nourished animal with short horns. At the same time, the other





type features enormous horns. This same typology is documented in rock art, such as the Yeghegis petroglyphs in Vayots Dzor Province. These representations reproduce the range of large-horned cattle domesticated in Early Bronze Age Armenia.

Certain sculptures feature perforations through the bulls' nostrils. These likely depict actual life scenes, illustrating the practical reality of restraining fierce animals by inserting metal or leather rings through their nostrils and controlling these unmanageable, mighty bulls with attached ropes. It should be noted that according to paleozoological observations, these Bronze Age animals were considerably more massive and larger-bodied compared to modern domestic cattle.

Boris Piotrovsky had already examined the terracotta miniatures of both bulls and wagons with flat rectangular platforms discovered at Shengavit and Mokhrablur sites. He paid particular attention to the unilateral perforations on the bulls' shoulders, correctly proposing that these symbolized draught animals (Piotrovsky 1955: 6). Into these holes—documented on bovine figurines from Shengavit, Mokhrablur, Agarak, and other sites—rods were inserted, which, when attached to wooden yokes, connected the bull figurines to wagon miniatures.

This hypothesis is substantiated by discoveries at numerous settlements of tuff and terracotta miniatures modeled after the solid wooden wheels with massive construction characteristic of wagons (Piotrovsky 1955: 6). These typically feature central hubs with through-holes into which axles connecting the two wheels were fixed. Particularly impressive are the tuff wheel miniatures discovered at Shengavit, with prominent cylindrical or truncated conical hubs, each bearing central perforations for axle insertion (Simonyan 2015: 152, table 3).

Terracotta miniatures of bulls and wagon platforms have also been discovered at Harrich (Khachatryan 1975: 73), Daghestani sites (Munchayev 1961: 98-99), Early Bronze Age sites in the Lake Urmia basin (Burton Brown 1951: 47-49), and elsewhere. These attest to the widespread use of ox-drawn wagons as

transportation in the Armenian Highlands during the Early Bronze Age (Simonyan 2018). Particularly numerous are the draught ox figurines discovered during excavations at Kül-Tepe I in Nakhichevan: of 24 recovered figurines, 21 bear neck perforations symbolizing their use as draught animals (Abibulaev 1982: 141).

Stepan Esayan suggests that animal miniatures lacking depressions on their bodies represent not bulls but cows (Esayan 1980: 11). However, we believe the essential issue here is not differentiating between male and female animals, since paleozoological determinations confirm that cows were also used as draught animals (Simonyan 2013: 14). In our view, ancient sculptors attempted to distinguish between bulls and oxen through the presence or absence of perforations.

Some bull figurines bear depressions—"stars"—on their foreheads. These, as divine symbols, predetermined these animals' cultic nature (Piotrovsky 1949: 35).

The Shengavithian culture also maintained a tradition of representing bulls through stylized sculptures featuring paired horns. This practice of symbolic representation was widespread throughout the ancient world, particularly on the island of Crete.

RAMS

Sculptures of small horned livestock were widely distributed, discovered at Shengavit, Jrhovit, Harrich, Mokhrablur, Nakhichevan's Mokhrablur, Agarak, Urbnis, Arukhlo, Amiranis Gora, and other settlements. Ram figurines can be subdivided into two major groups.

The first comprises volumetric ram miniatures. An excellent example of generalized realism is the ram figurine carved from dark pink tuff discovered at Mokhrablur. It distinguishes itself

through the precise composition of details. The sculptor sought to emphasize the animal's essential characteristics and anatomically correct structure, attempting to impart monumentality to the realistic sculpture of a powerful male.



As a second type, we can distinguish the ram sculptures discovered at Harrich, whose composition seems to reproduce movement and dynamism.

Exceptionally impressive are the ram figurines from Shengavit representing powerful males with taut bodies, whose triangular tapering muzzles bear through-perforations. A ram figurine from Agarak also features a through-perforation (Tumanyan 2012: 45).

The fourth group of ram figurines represents movable, horseshoe-shaped altar fronts—protomes—adorned with ceremonial-static ram sculptures. The ram sculptures impart monumentality to these clay-formed altars. Particularly impressive are the altars with ram-formed protomes discovered at Shirak Plain sites (Harrich, Karnut) as well as at Shengavit. The rams are depicted in majestic posture with heads held high, adorned with spiral-decorated, powerful horns. The forelegs are fused. From these originate the arches of horseshoe-shaped altars. The sculptural compositions are free from superfluity. They possess solid structure and resonant monumentality.

As noted, distinctive is the altar with ram protomes from Shengavit settlement, featuring eyes formed from inlaid black obsidian fragments (Simonyan & Khachatryan 2005: 57). Eyes are formed using similar principles in the twin idols from Amiranis Gora, as well as the head sculpture published by Sandro Sardaryan (Sardaryan 2004: 157, table XXIV).

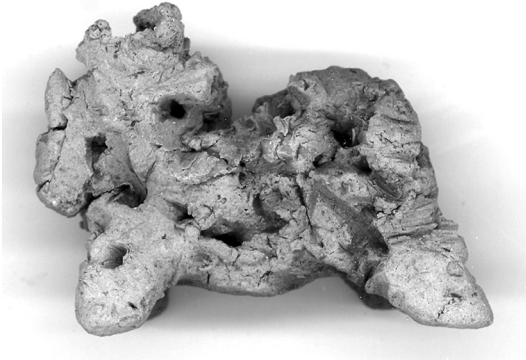
GOAT FIGURINES

Individual goat horns have been discovered at Shengavit, separated from now-lost figurines. The horns, made from arched, curved cylinders, are circular in cross-section. One goat figurine was modeled from unfired clay. It has deteriorated significantly over time (Simonyan 2013: 14, fig. 9, ill. 5-7).

HORSE FIGURINES

Two examples were discovered through our excavations from Shengavit's upper stratum. One has a broken head,

but the mane and tail formation suggest it represents a horse sculpture. Particularly impressive is the terracotta horse figurine with flowing mane. Its entire surface features depressions that most likely carry ritual-magical significance (Simonyan 2013: 14, fig. 9, ill. 3,4).



Sandro Sardaryan discovered rather impressive horse heads during excavations at Shengavit. One is crafted from black, polished, fine-paste clay. It features round, bulging eyes and small, pointed ears, with a well-formed mouth represented as a horizontal line (Sardaryan 1967: 200, table LXX, fig. 5). The mane clearly stands out on the cylindrical neck. An almost identical sculpture is housed in the Vanadzor Geological Museum. It remains unknown whether the figurines circulating in literature are reproductions of the same sculpture—appearing in the Vanadzor museum through certain circumstances—or absolutely identical sculptures discovered at considerable distances from each other: one in Lori, the other in Yerevan. In our opinion, this sculpture's stylistic characteristics are not typical of Early Bronze Age canonical forms but rather characteristic of Urartian art. Ruben Badalyan also doubts this figurine's attribution to the Early Bronze Age and, like us, considers it an example of Late Urartian/Achaemenid period sculpture (Badalyan et al. 2015: 35, 223, table 10, fig. 111).

Another miniature horse head attributed to the Early Bronze Age is highly stylized: it features a bulging forehead, quadrangular neck and muzzle, and depression-like eyes (Esayan 1980: 11). Another terracotta horse head miniature was discovered at Karaz. It has an elongated muzzle, faintly discernible ears, and depression-like recessed eyes (Kosay & Turfan 1959: 394).

DOG FIGURINES

Dog figurines have been discovered at Harrich, Mokhrablur, Joghaz, Agarak, Ras al-Amiya, Göy Tepe, and other sites (Esayan 1980: 12). According to Stepan Esayan, these are highly generalized terracotta miniatures that lack details about the animals' breed affiliation. In reality, individual examples of

dog figurines are imbued with vivacious immediacy.

The dog figurine discovered during 2021 excavations at Harrich, dated to the 29th-28th centuries BCE, features a half-open mouth, wide-set depression-like eyes, and short-cropped ears (Badalyan 2023, excavation scientific report, fig. 27). Only the front half of the figurine survives, with broken paw digits. Yet the sculpture is so realistic it seems to depict a lifelike dog sitting on its hind legs, head held high, gazing intently at its master and awaiting commands. Judging from the cropped ears, we can suppose this sculpture reproduces the image of a gampr prepared for combat with wild beasts. Another dog sculpture from Harrich bears a through-perforation at the neck.

In contrast to the Harrich dog sculpture, the Agarak figurine has pointed ears and fused legs (Tumanyan 2012: 44).

PIG FIGURINES

Discovered at Shengavit, Mokhrablur, Agarak, and Tepecik sites (Sardaryan 2004; Tumanyan 2012: 45). Pig figurines feature drooping ears, prominent muzzles, and hanging bellies, reproducing these animals' realistic appearance.

LION FIGURINE

Discovered in 2010 in Shengavit's upper stratum. Only the terracotta lion miniature's front half survives. The lion stands motionless in a proud posture. A massive mane adorns its head. Eyes are formed from depressions. The nose is in relief, the mouth appearing as a horizontal cleft. The technical methods for depicting the animal remain far from perfect. Yet, this imperfection creates a sense of immediacy. Evidently, the ancient sculptor had actually seen this beast and depicted it under the immediate influence of emotional impact. This is the only known lion sculpture from the Shengavithian culture and Early Bronze Age to date.

BIRD FIGURINE

Known from a single example from Mokhrablur. The head is broken. It is a hollow terracotta figurine with a spherical body,



a small, lowered tail, and a short, swollen neck depicting a bird in a seated position (Esayan 1980: 13). The swollen crop characterizes it as belonging to the dove family. Unfortunately, it was discovered in disturbed soil and lacks precise stratigraphic documentation. This figurine seems to prefigure the emergence of bird-shaped rhyta in Armenia one and a half millennia later during the Late Bronze Age.

The generalized-conventional style of terracotta miniature plastic art, widely distributed in Shengavithian culture, virtually disappears contemporaneously with this culture. As survivals, we can mention the Middle Bronze Age terracotta female figurine discovered at Yerkaruk-blur (Artsakh), the male figurine found at the cemetery near Karmir Vank, and the nine terracotta waterfowl figurines from Lchashen Tomb No. 8 of the Late Bronze Age—as distant echoes of Early Bronze Age tradition.

MINIATURE CULTIC SCULPTURAL FORMS

In addition to human and animal figurines, sculptural elements enrich tripartite hearths with internal spatial divisions, flat-surfaced three- or four-legged pedestals, and portable horseshoe-shaped shrines adorned with anthropomorphic or zoomorphic sculptures, sometimes taking the form of stylized bull sculptures or simply bull horns.

PORTABLE SHRINES

In scholarly publications, portable shrines are typically termed hearth pedestals or supports—terminology that, in our view, fails to reflect these forms' functional essence. We have introduced the term “portable shrines” to distinguish them from immovable terracotta hearths/cultic hearths fixed to floors.

Portable shrines are predominantly horseshoe-shaped, though ring-shaped, cylindrical, and quadrangular rectangular-cuboid (prismatic) forms with schematized bodies in bull-horn compositions are also widespread (Khanzadyan 1967: 65-67; Munchayev 1975: 169; Orjonikidze 2004: 93-99).

According to Levan Glonti and Alexander Javakhishvili, these shrines dedicated to fertility cults originated during the early phase of the Kura-Araxes culture (Glonti & Javakhishvili

1987: 82). Our research further “ages” these cultic forms. In Armenia, they were employed from the Chalcolithic period (Simonyan et al. 1996: 68-70). Shrines with cylindrical arms discovered at Akhtamir have surfaces decorated with densely arranged socket-like depressions. A portable shrine with such decoration is displayed in Van’s newly opened museum. However, portable shrines achieved wide distribution during the developed phase of Shengavithian culture.

Rectangular-cuboid (prismatic) bodies often feature hemispherical handles designed for mobility. These display relief-projection applied tails starting from the center of the back and ending at the rear. Discoveries come from Malaklu, Agarak, Shengavit, Mokhrablur, Harrich, Aparan 1, Gegharot, Tagavoranist, Kosi Choter, Karnut, Ketik, and other Early Bronze Age settlements (Baiburtyan 2011: 52-53; Kuftin 1944: 104-106; Sardaryan 1967: 174-175; Badalyan et al. 2008: 58, 59).

These zoomorphic portable shrines are distributed throughout the Armenian Highlands, in the Levant, Persian Armenia, and the Caucasus. They can be subdivided into two types:

First Type: Widespread are rectangular-cuboid (prismatic) bodied compositions with quadrangular flat seats and horns rising upward on one side, perceived as stylized bull sculptures.

Second Type: Schematic four-legged bull sculptures are more naturalistic—rectangular-cuboid (prismatic) bodies have short legs and upward-pointing horns on one side. Individual examples seem to exhibit an intention to impart tension to the sculpture through the combination of horns and body.

Horseshoe-Shaped Portable Shrines

Horseshoe-shaped hearth sculptures are predominantly schematic and stylized. Known are portable shrines decorated with relief-recessed images and projection-sculptures of animals, phalli, and male figures symbolizing acts of fertilization at the arm terminals and centers (History of Art of USSR Peoples, Vol. 1, 1971: 34; Munchayev 1975: 169, fig. 21; Esayan 1980: 13-17). Hemispherical handles on their external sides facilitated shrine mobility.

The horseshoe-shaped portable shrine discovered at Pulus is supplemented with a human head sculpture (Kosay 1970: fig.

4). Anthropomorphic projection-sculptures also appear on portable shrines discovered at Agarak, Garni, Amiranis Gora, Shirakavan, Anushavan, and other sites.

Ram-sculpted protomes impart distinctive majesty to horseshoe-shaped portable shrines. These depict rams in motionless, ceremonial posture with fused legs, heads held high, in a proud stance. They feature socket-like eyes and nostrils, bifacial modeling with sharp transitions, and curved, powerful horns. These ram-protome sculptures stand out for their monumentality. Such portable shrines have been discovered at Shengavit, Mokhrablur, Agarak, Harrich, Aparan 1, Gegharot, Kosi Choter, Amasia, Karnut, Ketik, and other sites (Khanzadyan 1969: 68-69; Kushnareva 1993: 55, fig. 19; Badalyan & Avetisyan 2007: 38-39; Tumanyan 2012: 47-48).

Small cups intended for libations could be placed in the socket-like crowns of schematic-stylized high-relief ram horn sculptures. Particularly impressive are the horseshoe-shaped shrines terminating in ram sculptures discovered at Shengavit and Harrich.

Such shrines have been discovered in the central regions of the Armenian Highlands, the Kura River basin, and at the peripheries of Shengavithian culture, particularly at Levantine monuments.

FIRE ALTARS AND CULTIC HEARTHTHS

These distinctive terracotta structures, measuring approximately one meter in diameter and 25-30 centimeters in height, feature a tripartite internal configuration that has prompted extensive scholarly debate. While academic literature conventionally designates them as cultic hearths, acknowledging their presumed multifunctional nature—

encompassing both economic-utilitarian and ritual-cultic purposes (Bayburtyan 1938: 257-259; 2011; Areshyan 1981: 93, 96)—we propose a more focused interpretation. The preponderance of evidence suggests these fire altar-hearthths were primarily designed for religious ceremonial functions, as their archaeological contexts consistently place them within cultic structures and sanctuaries rather than domestic dwellings.



Artak Gnuni's designation of these terracotta installations as "offering altar-hearths" underscores their sacred significance, particularly evident in their central placement within dwelling structures documented at Mokhrablur, Shengavit, Tsaghkagora, Khizanaat-Gora, and other archaeological sites (Sardaryan 1967: 174; Javakhishvili 1973: 137; Areshyan et al. 1979: 206; Tsikitishvili et al. 1991: 65). The archaeological record reveals a remarkable continuity: when new structures were erected atop abandoned foundations, maintaining identical floor plans and configurations, the newly constructed altars were positioned directly above their predecessors in the central space (Gnuni 1996: 136). This deliberate preservation of earlier altar-hearths beneath new floors has been interpreted as symbolizing familial prosperity and continuity (Khanzadyan 1969: 8-10; Javakhishvili 1973: 147; Abibulaev 1982: 85).

Drawing upon Gamkrelidze and Ivanov's monumental linguistic study (Gamkrelidze & Ivanov 1984: 808, 884), Garegin Tumanyan has demonstrated that Indo-European linguistic consciousness employed identical terminology for both ritual hearths and altars (Tumanyan 2012: 90). This observation substantiates our hypothesis that these so-called cultic hearths functioned as bagin-fire altars positioned before sacred idols, maintaining perpetual flames and serving as focal points for sacrificial rituals (Simonyan 2012: 103-106; 2013).

The centrality of fertility symbolism within Shengavit culture's hearth mysticism has been comprehensively analyzed by Ara Demirkhanian and Boris Frolov (Demirkhanian & Frolov 1985: 68-86), who examined the structural and iconographic peculiarities of the Karaz hearth as an exemplary case study.

The Karaz hearth remains unique in the archaeological record, featuring a central fire basin-depression surrounded by three triangular sculptural elements rising obliquely upward and inward from its edges, their apexes crowned with conical phallic terminals. This assemblage—combining the circular depression (feminine principle) with upward-thrusting flames and phalliform sculptures (masculine principle)—cannot be coincidental. Instead, it appears to symbolize primordial hermaphroditic unity intrinsically linked to ancient religious beliefs.



The sacred environment documented at Karaz, formed through the synthesis of the fire-containing terracotta circle (the feminine receptacle-hearth) with ascending flames and triangular sculptures terminating in phallic glans, must have embodied a comprehensive ritual system derived from ancient mythological beliefs concerning masculine and feminine principles. These conceptualizations, originating in the Stone Age, interpreted the conjunction of the hearth depression and rising

flames as an explicit reference to cosmogonic creation. The ascending fire and hearth cavity semantically symbolized the union of masculine and feminine principles, establishing the symbolic conditions for the act of fertilization—a concept reinforced by the central depression surrounded by phalliform triangular sculptures. The upward-pointing triangle symbolized ascension, rendered more vivid through the phallic terminals carved at its summits.

The design principles of the Karaz hearth are anchored in primordial ideological archetypes and comprehensive cultural paradigms. According to Demirkhanian and Frolov, these primordial definitions reflect conditional symbols derived from prehistoric consciousness, representing the essence of the cosmic axis—movement from below upward, originating from the feminine divine foundation (1985: 82). Particularly significant is the bull skull discovered beneath Agarak's decommissioned cultic hearth (feminine principle), which according to ancient beliefs symbolized the masculine principle of fertilization (Tumanyan 2012: 91).

Triangular silhouettes on cultic structures were frequently emphasized through added vegetal symbols ascending along their surfaces, further accentuating their fertility symbolism (fig. 54). Simultaneously, considerable emphasis was placed on concepts of life-death alternation and the balanced opposition-unity of feminine and masculine principles, which were believed to ensure societal and individual prosperity.

The sacred complexity of Shengavit culture was further enriched by sculptural representations of bulls, birds, and depressions adorning cultic hearths, completing the mystical environment (Demirkhanian & Frolov 1985: 79-80).

Beyond stationary hearths, similar mystical environments featuring relief compositions of stylized bulls and birds, and by depressions appear on portable altars. This perspective complements Kushnareva and Chubinishvili's proposition that anthropomorphic sculptures represented fertilizing elements of the hearth according to ancient beliefs (1971: 165).

The relief representations of bulls and birds on hearths likewise connect to fundamental concepts of life's reproduction. In the Upper Paleolithic cave paintings of Lascaux, the bull symbolizes both imminent death and new life, while the bird reinforces this semantic duality (Demirkhanian & Frolov 1985: 79-80). Bull and bird reliefs are also extensively represented in Portsarian culture, presumably symbolizing the ideological function of life's reproduction—the symbolic mechanism of the eternal cycle of life-death-rebirth.

Circular hearths occupied central positions in dwellings at Karaz-Artsn, Ozni in Georgia, Kvatskelebi, Khizanaat-Gora, Kulbakebi, and Shengavit. Miniature models of cultic hearths have also been discovered at Shengavit. Both the horizontal rims and protruding surfaces of these hearths were adorned with relief ornamentation.

Beyond portable sanctuaries, various other terracotta cultic objects have been discovered, including stands and pedestals classifiable into the following typological groups:

1. Circular, massive stands

2. Boat-shaped portable sanctuaries

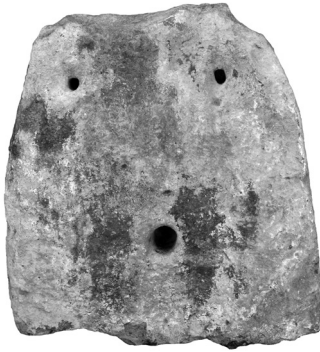
3. Horned stands representing stylized bovine figures:

- Sculptures with four thick legs or horns extending bilaterally, featuring flat bases and quadrangular, massive elevated bodies
- Bull-form sculptures with flat bases and ovoid, elongated, massive bodies. These stands exhibited regional characteristics unique to the Armenian Highland.

4. Tower or pyramidal stands

5. Tripod pedestals—characteristic exclusively of Armenian Highland culture.

4.6 MONUMENTAL SCULPTURE OF THE SHENGAVIT CULTURE



The monumental sculpture represents another paramount symbol of authority and statehood within the Shengavit culture, manifested through simplified anthropomorphic stelae. Approximately ten tuff-carved humanoid statues currently stand arranged in the courtyard of the Shengavit Museum. These monuments, displaced from their original contexts before our excavations, were collected from various sectors of the site and positioned along the fence line together with other large-scale stone tools and monuments at the museum administration's discretion. These sculptural stelae lack proper documentation regarding their original findspots, stratigraphic contexts, or associated archaeological horizons.

Despite their discovery decades ago, these highly stylized and schematic tuff sculptures remained largely neglected by both the excavating archaeologist and subsequent researchers until our recent publication. The sole exception was Stepan Esayan, who published three stelae with brief descriptions, correctly concluding that these monuments would have been erected in the central, freestanding areas of dwellings, functioning as three-dimensional sculptures visible from multiple vantage points (Esayan 1987: 133-135).

These simplified anthropomorphic stelae, reaching heights of up to 80 centimeters, were carved from reddish and gray tuff. They feature flat, rectangular bodies with rounded corners, tapering slightly upward. Both surfaces display deliberate workmanship. The head-like protrusions are separated from the body by straight-cut lines and deep-relief carving. The faces bear perforated, drilled-through eyes that open both forward and backward—a design principle likely symbolizing the omniscient deity capable of seeing both ahead and behind. Mouths are represented as deeply incised depressions. The bodies similarly feature carved depressions, presumably representing the navel.

These monuments constitute volumetric simplified compositions designed for circumambulatory viewing. Most probably, they were mounted on clay-formed altars adjacent to fire installations, symbolizing feminine deities.



Correlating with the Shengavit stelae in both composition and dimensions is a male tuff figurine discovered by Evgeny Bayburtyan at the Mukhannat-Tepe settlement, currently housed in the State History Museum collection (inv. 1439/518). Another anthropomorphic sculpture, triangular in form and carved from a flat basalt slab, was discovered in northeastern Yerevan at the now-devastated Avan-Arinj district settlement, which features Hellenistic and Early Bronze Age cultural horizons. This simplified stela was recovered from the lower Shengavit culture stratum (Demirkhanyan 1982: 307-310).

The Shengavit site has also yielded portable small-scale stelae carved from black, red, and gray tuff, compositionally similar to the aforementioned Shengavit monuments, though considerably smaller in scale. One of these miniature sculptures features four perforated holes drilled at the neck base. These likely represent domestic anthropomorphic deity figurines.

STELA-MENHIR



A cylindrical, phallic-form monolith of red tuff, approximately two meters in height with a roughly finished surface, was discovered in Shengavit's upper stratum within one of the rectangular rooms excavated by Sandro Sardaryan near the southwestern fortification wall (Sardaryan 2004: 472, fig. 65/1). Though found in a horizontal position, logic dictates it originally stood vertically. It likely functioned as a fertility symbol—a simplified phallic sculpture. Currently erected near the Shengavit Museum entrance. According to Toros Toramanyan's conviction, stela-menhirs were erected to commemorate significant events or victories: "Teotrons shows us Hebrews erecting unhewn stones similar to British megaliths in commemoration of victory" (Toramanyan 1949: 8).

Another Early Bronze Age monument consists of a monolithic basalt altar approximately four meters in length, positioned on the platform of Mokhrablur's fifth-layer tower-temple. With no nearby basalt quarries, this massive stone was presumably transported from several dozen kilometers away, perhaps from the slopes of Mount Aragats or the Kasakh Gorge. This discovery resulted from Grigor Areshyan's excavations (Areshyan & Kafadaryan 1975: 397-403).

At Agarak, excavations revealed a considerably eroded tuff anthropomorphic stela, along with complex compositions on rock platforms consisting of three parallel wavy incised lines and deep-relief curved lines, as well as an engraved zoomorphic silhouette (Tumanyan 2012: 99).

4.7 ARCHITECTURE OF THE ARMENIAN HIGHLAND IN THE EARLY BRONZE AGE

The architectural heritage of the Shengavit culture has generated an extensive corpus of scholarly literature, primarily addressing construction history, residential building structures, possible roof configurations, construction materials used, and related technical aspects. However, most publications focus on specific archaeological contexts revealed through individual site excavations. This information remains fragmentary and dispersed across hundreds of diverse multilingual studies. A systematic investigation of architectural forms, floor plans, interior configurations, functional designations, and construction techniques can illuminate the essential culture-generating characteristics of ancient societies' socio-economic structures.

The fundamental architectural characteristics of the Shengavit culture comprise: (a) mud-brick walls constructed on stone foundations; (b) dwellings featuring both circular and rectangular floor plans; (c) circular structures covered with conical roofs; (d) certain settlements enclosed by stone fortification walls (History of Art of the USSR Peoples, Vol. 1, 1971: 34).

Shengavit culture residential structures can be primarily classified into two typological categories: (a) elongated forms—rectangular, elongated with rounded corners, square, and trapezoidal; and (b) circular floor plan structures.

Elongated rectangular structures predominated in the southern regions of the Armenian Highland, with attestation dating to the Neolithic period at Çayönü Tepesi and other settlements (Mellaart 1982: 136; Burney & Lang 1971: 25). During the Chalcolithic phase, individual rectangular

structures were documented in the Ararat Plain at Aghvesi Bneri, Terteri Dzor (Sardaryan 1967: 143, 147), Kghzyak Blur (Areshyan 1991: 10), and the Mil-Karabakh Plain (Mahmudov 1975: 14-16). However, the northern regions of the Armenian Highland during the Chalcolithic and early phases of the Early Bronze Age were predominantly characterized by circular or oval floor plans, with rectangular constructions appearing sporadically, primarily for fencing and auxiliary structures. According to our observations, rectangular residential buildings achieved widespread distribution only during the late phase of the Shengavit culture.

Artak Gnuni divides elongated rectangular rooms into two major categories: (a) freestanding single-room structures; (b) multi-room complexes with rectangular floor plans. The first category includes isolated rooms occupying 35-42 square meters, discovered at Harrich, Amasia, Gorner, Shirakavan, Karnut, Aghnakhner, Shengavit, Amiranis Gora, and other sites (Gnuni 1994: 23-24). Taniel Chubinishvili hypothesizes that the elongated rooms constructed on terraces at Akhaltsikhe's Amiranis Gora settlement functioned as livestock pens (Chubinishvili 1971: 55). This interpretation, along with the terraced construction at Amiranis Gora—where the flat roof of a lower room would serve as a courtyard for the upper level—has been justifiably challenged by Alexander Javakhishvili (1973: 153-154, 157).

Particularly noteworthy are the rectangular rooms excavated in squares K:6 and I:14 of Shengavit's upper stratum, featuring rectangular niches separated from the main volumes (Simonyan 2013). These warrant detailed discussion below.

Complexes comprising two or more interconnecting rectangular rooms, predominantly incorporated within square floor plans, have been excavated at Horom (Khachatrian 1975: 37), Kethi (Petrosyan 1989: 14-15, 28; Badalyan 1986: 8), Sghnakhner (dwelling 2), Tetrtsgharo, Akhalkalaki's Amiranis Gora, Algeta (Chubinishvili 1971: 49-50), mud-brick wall structures on stone foundations at Karaz (Sagona 1984: 65-66), Pulus near Aratsani (Koşay 1969), and possibly at Akhaltsikhe's Amiranis Gora according to Alexander Javakhishvili (1975: 157).

The Pulur architectural configuration is exceptionally distinctive. Rooms with mud-brick walls, raised on single-row stone foundations and featuring rectangular floor plans, are arranged along the hill's perimeter in inner and outer rows, creating a unique defensive system. The outer-row rooms, adjoining each other, have blind walls facing outward. At the same time, entrances open onto the corridor extending between the inner and outer rows, or onto the vestibule fronting the inner-row rooms. At Akhaltsikhe's Amiranis Gora, the hilltop was designated for communal use, serving as a typical plaza or nocturnal animal enclosure (Koşay 1969: 104-105; Sagona 1984: 226). In their construction principles, Pulur correlates with the settlements of Gelincik Tepe, Değirmen Tepe 5, and Tepecik 1 near Malatya (Esin 1971: 30; Sagona 1984: 74-75).

Quadrangular architectural structures have been revealed at Shahlama 2 fortress (Esayan 1976: 21), the upper stratum of Gharakepek Tepe settlement (Ismailov & Danielyan 1981: 76; 1985: 23), and layers 1-5 of Godin Tepe's fourth occupation phase (Young 1969: 10)²¹. Charles Burney suggests that rectangular floor plan structures emerged when nomadic tribes became sedentary.

A two-room complex of cultic nature, comprising rectangular halls, was excavated in 2012 in squares M:5 and N:5 of Shengavit's upper stratum. This complex consisted of a sacrificial hall and a "table house" (economic structure). The rooms shared a common wall, with the cultic and economic room entrances opening on opposite sides—one on the southern, the other on the northern lateral wall (Simonyan 2013).

Elongated Dwellings with Rounded Corners

Elongated structures with rounded corners are predominantly documented in the left bank basin of the Kura River, particularly in Shida Kartli at the settlements of Kvatskhelebi on the Kura's left bank and Khizanaat-Gora, located 2.5 kilometers east near the village of Urbnisi. At Kvatskhelebi, dwellings extended along the settlement's longitudinal axis, bordering modest plazas. Wall construction employed wattle-and-daub techniques: posts 8-10 centimeters in

²¹ The pottery from this layer of Godin Tepe corresponds to that of the second layer of Yanik Tepe (Young 1969: 10).

diameter were embedded in the ground at approximately 20-centimeter intervals, interwoven with branches, then coated on both sides with thick clay plaster to achieve walls 30-40 centimeters thick. These surfaces were subsequently smoothed with a 2.5-centimeter clay finishing coat.

Adjacent to the lateral walls of houses stood rectangular economic corridors—storage chambers—connected to residential quarters through doorways. Within the dwellings, low platforms (mastabas) measuring 10-15 centimeters in height and 50-80 centimeters in width were positioned along both lateral and longitudinal walls, serving as bench-beds. Clay-formed hearths occupied central positions, flanked by support columns bearing flat roofs.

The timber-framed roofs, presumably featuring conical openings formed through “hazarasheni” technique in central sections, were waterproofed with layers of compacted clay. Floors comprised up to twenty sub-layers, with the uppermost treated with ash coating and polished. We propose that these sub-layers, as at Shengavit, resulted from periodic repairs of damaged floors during extended occupation rather than deliberate initial construction with twenty sub-layers, as suggested by Georgian archaeologists.

Three structures with mud-brick walls notably differ from the woven-framework houses (Javakhishvili 1971: 113; Chubinishvili 1971: 90, 95). We interpret this innovation as borrowing from the advanced architectural traditions of Shengavit culture’s central regions. Woven-framework houses have been excavated in Gutabergla settlement’s lower horizon, at Ozni, Kubakebi (Chubinishvili 1971: 95), Dagestan’s coastal areas, including Kayakent, Velikent, Mamaykutan, as well as the foothill settlements of Mekegi and Lugovoye in Ingushetia, where semi-subterranean structures with oval floor plans predominate (Javakhishvili 1971: 259; Kushnareva & Chubinishvili 1971: 100; Munchaev 1975: 175).

Dwellings with woven frameworks, clay-plastered walls, and rounded corners are documented in the Euphrates basin at Norşuntepe horizons 19-18 and Değirmentepe’s third construction horizon. Particularly noteworthy is the phenomenon observed at both Kvatskhelebi’s C1 stratum

and Norşuntepe's horizons 19-18, where woven-framework structures coexisted with square-plan mud-brick dwellings (Javakhishvili 1973: These architectural peculiarities perhaps indicate ethnic migrations from the central regions of the Armenian Highlands—the Shengavit culture's homeland—both northward and southward.

Single-axis aligned but adjoined and interconnected structures have been documented in the Aegean islands at Thermi settlement's fourth horizon. This site, dated to the second half of the third millennium BCE, is chronologically later than South Caucasian structures (Andreev 1989: 36-37).

Elongated dwellings with rounded corners were documented at Mingechaur on the Kura River's left bank. These semi-subterranean dwellings ranged from 8-14 meters in length and 4-8 meters in width, occupying substantial areas exceeding 100 square meters in some instances. Wooden posts lined the clay-plastered longitudinal walls. Interior partitions divided dwellings into two sections. Roofs presumably rested on central supports. Floors were formed from pottery sherds and river pebbles bound with clay plaster (Aslanov et al. 1959: 21-22; Chubinishvili 1971: 105).

Square Floor Plan Dwellings

The Ararat Plain has yielded only one isolated, freestanding structure with a square floor plan and mud-brick walls—Dwelling 33 in Mokhrablur's Layer VII (Areshyan et al. 1979: 205-206). Square floor plan structures more characteristically define Kharpert's Early Bronze Age settlements. Among these is Taşkun Mevkii, a 2.3-hectare settlement on the Aratsani River's right bank, 20 kilometers from its confluence with the Euphrates, dating to Early Bronze Age I (3,000 BCE). Here, square structures with mud-brick walls on stone foundations were excavated. Similar dwellings are known from Western Armenia at Norşuntepe, Değirmen-tepe, Korucutepe, and Tepecik (Sagona 1984: 71-73), all dating to the early phase of the Early Bronze Age.

Another category of square floor plan structures gained widespread distribution during the transitional phase between the terminal Early Bronze Age and early kurgan

cultures. These were documented at Aygevan's upper horizon, Havtavan Tepe, and Yanik Tepe. According to Charles Burney's reconstruction, Yanik Tepe's horizons XIII-VII featured two-story houses with quadrangular floor plans interconnected by staircases (Burney & Lang 1971: 65-66; Sagona 1984: 62-64; Kushnareva & Chubinishvili 1970: 93). Two-story houses were also documented at Shengavit through 2012 and 2022 excavations, evidenced by traces of wooden beams embedded in wall construction designed to bear second-floor loads (Simonyan 2013: 21).

Circular floor plan stone-built cultic complexes were revealed as early as the Pre-Pottery Neolithic at Göbekli Tepe, Karahan Tepe, Nevali Çori, and other Portsarian culture sites. In contrast, circular residential dwellings with mud-brick walls on stone foundations appeared at Palestine's Wadi Falla (Nahal Oren) settlement (Mellaart 1982: 34-39). The tradition of circular floor plan residential structures continued uninterrupted in Western Asia through the Early Bronze Age. Northern Mesopotamia's fifth-fourth millennia BCE Halafian (Arpachiyah) and Northern Ubaid (Tepe Gawra) cultures characteristically feature two-room residential complexes with circular and adjacent rectangular floor plans built with mud-brick walls on stone foundations (Merpert & Munchaev 1971: 150; Rothman 2002). Notably, this tradition achieved exceptional widespread distribution in the northern regions of the Armenian Highland during the fourth to third millennia, in the Shengavit culture.

This tradition was documented in the northern regions of the Shengavit culture at Khizanaat-Gora on the Kura's left bank, as well as at Dagestan's Gemetyube 1 (Kayakent) and Gemetyube 2 sites, where excavations revealed semi-subterranean circular dwellings initially constructed with mud-brick, followed by stone (Gadzhiev 1991: 129-130).

Among comprehensive works devoted to Early Bronze Age architecture of the Armenian Highland, we emphasize two: Javakhishvili 1973: 13-90 and HCP, Vol. 1, 1996: 33-66. The section in the Armenian Academy of Sciences Art Institute's academic publication on Armenian architectural history provides a relatively complete coverage of Shengavit culture's most prominent monuments, aiming to construct the

architectural portrait of the Armenian Highland's Early Bronze Age. This collective monograph, written during the Soviet period, was published only in 1996.

Subsequently, extensive excavations have enriched our knowledge of the Shengavit culture dwelling construction and interior decoration. These excavations have revealed new information, refined and corrected previous data, and advanced new approaches and interpretations regarding their spatial and chronological boundaries. We particularly emphasize excavations at Agarak (2001-2008) and Shengavit (2000, 2003-2008, 2009, 2011-2012, & 2020-2022), which yielded remarkable discoveries concerning settlement stratigraphy, construction patterns, building techniques, and urban planning. These provide grounds for refining, reinterpreting, and revising long-circulating perspectives.

Preliminarily, we note that Shengavit culture architecture featured structures of diverse configuration and functional designation, classifiable into the following categories: (a) residential structures; (b) economic buildings; (c) production complexes; (d) defensive systems; (e) cultic complexes; (f) hydro-engineering structures; (g) funerary architecture. The presence of monumental constructions and developed urban planning indicates social stratification and centralized authority, as implementing large-scale architectural projects through coordinated labor typically requires an administrative apparatus with substantial authority.

Architectural complexes contain the most comprehensive information about ancient societies' social structures. It is well established that societal structure predetermines architectural and artistic development trajectories. Consequently, a profound understanding of art fundamentally depends on accurate perception and interpretation of socio-economic realities. Architecture provides the most vivid and objective informational substrata for revealing these issues.

The accepted view holds that Armenian Highland residential structures primarily consisted of circular floor plan dwellings with adjacent rectangular economic structures or storage chambers. In the early phase of the Early Bronze Age Norabats settlement, circular dwellings featured both rectangular and semi-circular annexes—Rooms 5 and 9—which externally

encompassed half or even three-quarters of the circular rooms. Norabats' houses were constructed with mud-brick walls, laid in double rows on stone foundations and plastered with clay. To prevent moisture damage, foundations were filled with river pebbles and sand layers (HCP 1996: 36). At Norabats, we observe a vivid example of the coexistence of the waning Chalcolithic tradition of semi-circular annexes to circular rooms and the architectural complexes that gained widespread distribution in Northern Armenia during the Early Bronze Age—rectangular storage chambers adjacent to circular rooms. Similar conditions—structures with circular and rectangular floor plans—were revealed in Khizanaat-Gora settlement's Horizon D (Javakhishvili 1973: 113-149). According to Alexander Javakhishvili, at Khizanaat-Gora, Horizon D's circular Room 16 possibly had a semi-circular annex (Javakhishvili 1973: 135, 142). The excavating archaeologist Ya. Kikvidze considers it to be the remains of a rectangular annex. Correctly resolving this issue has significant importance, as we believe semi-circular annexes characterized Shengavit culture's early phase.

SETTLEMENT HIERARCHY SYSTEMS

Multiple factors determined the selection of ancient settlement locations: terrain characteristics, defensible relief features, water availability, and biomass-supporting environments that provided food sources. Proximity to pastures and arable lands, game animals and fish-rich rivers, access to communication routes, and the abundance of construction materials and mineral resources were also important considerations.

During the Early Bronze Age, the Armenian Highland developed a hierarchical settlement system based on the principle of satellite settlements concentrated around central habitation sites (Kushnareva 1993: 78). At Elar, five satellite settlements were documented surrounding the Daran fortress (Khanzadyan 1979: 7). Around Shengavit clustered the village sites of Mukhannat-Tepe, Tairova, and Khorumbulagh (Khanzadyan 1967: 10). We can hypothesize that Adablur and Shresh Blur functioned as Mokhrablur's satellites. The royal seat's satellite settlements included Kosi Choter, Mashtots

Blur, and Yatagh. In the Tashir region, the massive Norashen settlement was surrounded by a network of smaller habitation sites. In the middle Arax River basin, between the Ishkhanaget and Kendelen streams, Gharakepek-Tepe served as the central settlement, encircled by Shekerjik-Tepe, Uzun-Tepe, and other sites (Simonyan & Gnuni 1996: 70-71). Studies of ancient Near Eastern settlements provide grounds for proposing that settlement hierarchy and the emergence of central habitation sites created the environment within which early cities developed (Andreev 1989: 15-16; Zdanovich 1997: 14).

According to cartographic observations, fortifications primarily protected central settlements surrounded by undefended village sites. The hierarchical structure of this period's settlements is already distinct: undefended satellite settlements existed around central, fortified citadels.

DEFENSIVE SYSTEMS

Among the defining characteristics of early cities is the presence of stable fortification systems (Oppenheim 1990: 93; Rykwert 1988: 62). Defensive systems are perceived as social phenomena characteristic of developed civilizations. When establishing Early Bronze Age settlements, naturally protected locations were prioritized and further reinforced with defensive structures—fortification walls, moats, and towers (Kushnareva 1993: 265).

As noted, the entrenched view maintains that Early Bronze Age Armenia featured a primitive social order, under which settlements could not have been fortified. Based on this axiomatic principle, many archaeologists have not attempted to revise prevailing views of Shengavit culture's developmental stage; instead, they have questioned even the most reliable primary sources regarding the presence of fortifications.

What is the actual picture? To date, over twenty Early Bronze Age settlements with fortifications have been documented. In numerous sites, urban life ceased immediately following Shengavit culture's collapse; consequently, fortifications revealed through excavations are clearly attributable to the Early Bronze Age.



We present their examination: Yanik Tepe's horizons III-IV revealed fortification walls and guard post-dwellings (Burney 1964: 60); Nakhchivan's Mokhrablur 2, horizon III, featured fortification walls (Aliev & Seidov 1981: 17); Tavush Province's Shahlama-3 fortress contained towers and double-row fortifications (Esayan 1976: 27); Shengavit

possessed stone fortifications reinforced with towers and buttresses, plus a secret passage (Sardaryan 1967: 176); Tepecik had stone fortifications with buttresses (Schachner 1999: 142); Dzyanberd featured double-row fortifications (HCP, Vol. 1, 1996: 65); Taghavoranist possessed triple-row fortifications and a citadel; Persi and Shresh Blur had fortification walls (Areshyan et al. 1977: 90; HCP, Vol. 1, 1996: 26); Khorenia contained fortresses (Simonyan 2002: 65-66); Gudabertka (Kushnareva 1993: 230), Gharakepek-Tepe, and Hadrut featured fortifications (Akhundov 1986: 130). Norşuntepe possibly contained a citadel (Hauptmann 1974: 43-44; 1975: 35-46). Our field investigations provide grounds for asserting that Taghavoranist also possessed a citadel. The Late Chalcolithic and Early Bronze Age I settlements of Imiris Gora and Norabats were surrounded by moats (Areshyan & Asatryan 1985: 203; Areshyan & Israelyan: 26; Esayan 1992: 114).

During the Early Bronze Age, defensive systems enclosed not only central settlements but also frontier fortress-outposts established in border regions, which presumably controlled the approaches to this socio-cultural community (Simonyan 2002: 72-73). Thus, Shengavit culture settlements like Amiranis Gora, Khorenia, and others, which during specific historical periods neighbored bearers of the Colchian culture established in Georgia's Black Sea coastal regions, were, in our opinion, strategically oriented and designed to protect the northwestern boundaries of this socio-cultural community.

The Early Bronze Age in Armenia documented several construction principles for defensive systems:

1. **Valley regions** with scarce stone resources: fortifications were constructed from specially prepared hard mud-brick, whose mortar presumably had salt intentionally added²², imparting great strength to the mud-brick.
2. **Foothill zones**: fortification foundations were formed from large and small stone fragments, upon which mud-brick walls were raised. This principle proved so effective it continued through the Kingdom of Van period—at Erebuni, Karmir-Blur, Toprakkale, Altın Tepe, Haykaber, Ayanis, and elsewhere.
3. Mountain and foothill regions with abundant stone: fortifications were formed from massive, unworked stone accumulations.

Mud-brick fortifications characterized settlements near Lake Urmia (Geoy Tepe), the Arax basin (Gharakepek-Tepe), Nakhchivan's Mokhrablur 2, Echmiadzin's Mokhrablur, the Euphrates basin (Tepecik, Norşuntepe), and the Kura basin (Gudabertka). The second group includes citadels with mud-brick walls on stone foundations: Yanik Tepe, Tyulin Tepe, Shresh Blur, Shengavit, Mukhannat-Tepe, and Taghavoranist. The third group, with fortifications constructed from massive stones, includes sites on Mount Aragats's slopes (Dzyanberd, Persi), in Kotayk (Garni), Gegharkunik (Lchap, Tsovagjugh/former Chibuklu), Shirak (Harrich), Tavush (Shahlama 3), and Javakhk (Khorenia and Mount Abul settlements).

These classifications derive primarily from excavation data analysis, partially supplemented by field surveys. We are confident that our knowledge of fortified settlement numbers will increase dramatically, as most of the approximately thousand known Shengavit culture settlements remain unexcavated.

SHENGAVIT'S DEFENSIVE SYSTEM

One of the Early Bronze Age's pivotal monuments in Yerevan's territory is Shengavit, constructed on an elevated east-facing promontory of the Hrazdan River (present-day Yerevan Lake). As early as the 1930s, the site known as "Fortress of the

²² Village craftsmen have informed us about the use of salt in mud mortar and adobe bricks. The authenticity of their testimony was confirmed in conversation by the materials specialist Vahagn Israelyan.

Infidel” (Gyavur Kala), spanning over 6 hectares, remained in nearly pristine condition (Shahaziz 2003: 45; Bayburtyan 2011 [1938]: 26).

This location offered numerous favorable conditions for human habitation. The Shengavit settlement was established in the southern part of the Yerevan depression, adjacent to the Ararat Plain, on the left bank of the resource-rich Hrazdan River, atop an elevated hill-promontory bordered by gorges and ravines on three sides—north, west, and south. Lush pastures, fertile river valleys and plains, and high-quality salt deposits surrounded it. The landscape facilitated the organization of an effective defensive system.

The exceptional convergence of favorable conditions—terrain suitable for organizing defense, proximity to fertile river valleys, surrounding pastures, abundance of food and water, substantial reserves of various construction materials, favorable position for communication via the Hrazdan valley leading to the Ararat Plain, nearby salt mines, and other factors—constituted essential prerequisites for territorial occupation. Humans inhabited this area continuously for over a millennium (3,300-2,200 BCE).

Between 2,900 and 2,700 BCE, stone fortification walls 4-10 meters wide were constructed along the promontory’s summit perimeter²³. On the site’s northern and western sides facing the Hrazdan gorge, excavations revealed a fortification chain composed of triple-row terrace-retaining walls with rectangular buttress-towers. The north-facing facade was similarly reinforced with rectangular buttresses (Simonyan & Rothman 2022: 406-428). The site featured a secret passage to the Hrazdan River, constructed with stone slabs and subsequently covered and concealed with earth, originating from the northern great tower. The entrance and the most powerful fortifications most likely occupied the eastern or southeastern section, which communicated with the plain and is now destroyed by modern construction (Simonyan & Rothman 2023: 88-89).

The sophisticated defensive system revealed at Shengavit—utilizing relief-afforded opportunities, massive stone fortifications 4-10 meters thick reinforced with rectangular buttresses, and a slab-covered secret passage to the river—

²³ The 10-meter-wide fortification wall of the Shengavit settlement was reported in 1928 by an employee of the Committee for Antiquities (Simonyan & Rotman, 2022). At first glance, this account appears improbable. However, the recently excavated fortification at the Agharak site—measuring about 8 meters in thickness and 12 meters across at the façade—leaves little doubt that the walls of the Shengavit culture, founded ca. 2900–2700 BCE, were indeed of massive thickness.

provides grounds for concluding that a high-caliber fortification school had developed in Armenia at the boundary of the fourth and third millennia BCE.

Shengavit's defensive system represents a classic example of Ancient Near Eastern fortification architecture. Such a sophisticated defensive complex could only be constructed under conditions of multi-century experience, accumulated architectural and engineering knowledge, centralized authority, and vital necessity driven by constant danger—resistance to enemy attacks.

URBAN PLANNING

The plan configurations of Armenian Highland settlements, based on dwelling and public building density and their relative positioning, can be subdivided into the following types:

- a) **Dispersed construction**—free spaces exist between houses,
- b) **Compact construction**—houses are primarily arranged close together, occasionally adjoining,
- c) **Dense construction**—virtually no free spaces left between houses and their courtyards, with one house's wall often adjoining another's.

To ensure resident circulation, narrow and winding, occasionally straight streets were left between house groupings. Settlements featured defensive systems, cultic complexes, plazas, artisan quarters, production platforms, and broad streets. During the Early Bronze Age, central settlements exhibited dense construction patterns.

Among the characteristics of ancient Near Eastern early cities are regular construction patterns, monumental buildings, and street networks. Streets have been excavated at densely constructed sites, including Shengavit, Karnut, Mokhrablur, Yanik Tepe, Jrahovit, Norşuntepe (width 2-3.5 m), Değirmen-tepe, Taşkun Mevkii, Khan Ibrahim Shah, Hama K-4 horizon, Tepecik, and Agarak (230-250 cm width), with residential dwellings lining both sides (Khanzadyan 1991: 10; HCP, Vol. 1, 1996: 41; Badalyan 1986: 7; Sagona 1982: 65).

The Ararat Plain, which includes Yerevan's territory, was one of the most important centers of Shengavit culture formation.

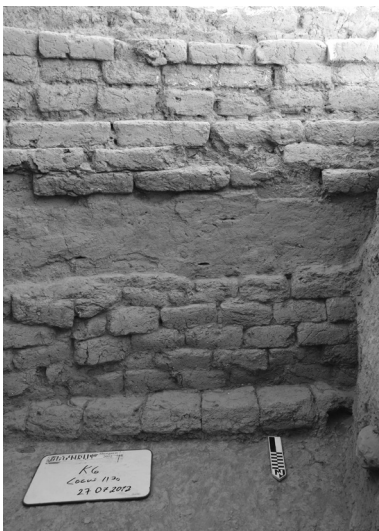
Early Bronze Age settlements documented here exhibited dense construction patterns and other characteristics typical of ancient Near Eastern architecture. Houses were grouped around narrow streets or plazas.

Let us now examine the Shengavit site's newly documented stratigraphy and construction principles from 2000-2022 excavations (Simonyan 2002: 18-25). According to observations, nearly all Shengavit horizons contained both circular and rectangular floor plan structures. The exception is the upper stratum, where primarily rectangular floor plan buildings were documented.

As noted, Shengavit during its florescence occupied over 6 hectares. Correlating the surface areas and the quantity of houses revealed through excavations in the settlement's occupied territory indicates that each 100 square meter section contained, on average, one and a half dwellings (homes). Suppose we divide the settlement's 60,000 square meter area by 100 and multiply by 1.5. In that case, we can establish that under documented dense construction conditions, Shengavit, like one of the Ancient Near East's largest settlements, Çatal Höyük, could have contained $600 \times 1.5 = 900$ house-structures (Simonyan 2013: 11; 2018). If we subtract the areas occupied by plazas, streets, and cultic and economic structures, we must still accept that the densely constructed settlement contained at least 600-700 houses.

During the Early Bronze Age, small families typically inhabited houses measuring 20-30 square meters. According to ethnographic data, such houses accommodated small families of 5-8 members (Kushnareva 1997: 25-26). However, at Shengavit, houses averaged 50-70 square meters. Structures occupying 80-150 square meters were also documented. Such large houses could accommodate patriarchal extended families of 10-12 people. According to Evgeny Bayburtyan, Shengavit's large houses accommodated several families totaling approximately 40 members (Bayburtyan 2011 [1938]: 42).

If we multiply the number of inhabitants per house by the quantity of structures, Early Bronze Age Shengavit's population minimally comprised $700 \times 5/8 = 3,500/5,600$, maximally 7,000/8,000 people. For the Early Bronze Age, this represents a substantial figure characteristic of ancient Near



Eastern urban settlements: Çatal Höyük with 4,000-6,000 people and Norşuntepe with approximately 5,000 people (Kushnareva 1993: 266).

In certain Early Bronze Age settlements of the Armenian Highland—proto-urban centers like Amiranis Gora and Shengavit—evidence has been documented for artisan concentration by specialization and possibly artisan quarters or “guilds”²⁴ (Chubinishvili 1971; Simonyan 2013: 13). In various sectors of Shengavit, traces of metal and stone workshops and concentrations of grain storage pits have been documented (Bayburtyan 2011 [1938]: 29). From this, we can conclude that metalworkers operated in one quarter, stoneworkers in another, agriculturalists in yet another. This structure, persisting even into the medieval period, characterized urban settlements.

ECONOMIC STRUCTURES AND WORKSHOPS

According to Robert McC. Adams, functioning as a craft production center and specialization by production sectors, constituted crucial prerequisites for ancient cities (McC. Adams 1966: 47). Shengavit culture settlements provide numerous attestations of specialized production.

STORAGE PITS

At Yanik Tepe, Structure N1 discovered in the settlement’s central area is interpreted as a wheat storehouse (Sagona 1982: 64). At Elar, several grain storage pits positioned approximately 1 meter apart were documented, the largest capable of storing up to 300 kilograms of grain (Khanzadyan 1979: 23)—a substantial quantity for the Early Bronze Age.

Shengavit emerged as a super-center in wheat production. The northwestern sector of the city revealed approximately twenty storage pits, the largest capable of storing about 4 tons of grain. Aggregate calculations indicate these pits in this limited area alone stored approximately 40 tons of grain (Simonyan 2018: 4-5). These reserves could supply not a single house or quarter, but the entire city’s needs. Such massive storage facilities for agricultural produce indicate both advanced agriculture and possibly grain commerce. In the ancient world,

²⁴ We believe that the Armenian words *hamkar* and *hamkarut’iwn*, which are in common circulation, originate from the Sumerian term *tamkar*, meaning ‘association of craftsmen’..

grain, alongside livestock, metals, and commodity-money, functioned as a monetary equivalent and an object of trade and exchange.

The grain pits revealed through excavations were constructed with exceptional care and skill. They featured pear-shaped storage chambers that widened from top to bottom, with cylindrical, narrow, elongated entrances lined with stone walls and covered by excellently crafted tuff disc-shaped lids. The northern, wind-exposed riverside section of the city likely served as the quarter for separating grain from chaff (“threshing”) and storage. This area presumably concentrated the city’s agricultural population. The abundance of farming tools—sickle inserts, plowshares, grindstones, threshers, hoe-axes, and storage facilities—is evident at this site. Large quantities of agricultural implements were also documented in the unfortified city quarter near the cemetery.

At Elar and Khizanaat-Gora, so-called economic pits—refuse pits—were discovered within houses, filled with broken objects, particularly pottery sherds. Kikvidze interprets these pits as evidence of agricultural cult practices.

In Shengavit’s central excavation area, stone tools for processing ore and copper were documented. Squares K:6 and P:12, along with Evgeny Bayburtyan’s excavated square N:15, yielded thousands of flint fragments and chips, as well as clay-plastered platforms for processing stone tools. While flint-working workshops were discovered in various city sectors, agricultural and metalworking workshops were clearly differentiated, providing grounds for concluding that Shengavit had already developed artisan quarters grouped by occupation.

The rich assemblage of stone tools from Agarak—perforated basalt boat-shaped and navicular plowshares, river-pebble hammers, grinders, smoothers, grindstones, millstones, weapons including spherical stones for slings, basalt spherical mace-heads, obsidian and flint arrowheads, ornaments including beads, cult objects including tuff anthropomorphic stelae, and others—indicates the presence of master stoneworkers. As at other Early Bronze Age sites, segmented sickle inserts were made from flint, while harvesting knives from obsidian (Tumanyan 2012: 97-98).

Other Shengavit culture settlements similarly documented agricultural product processing quarters. At Arslantepe's horizon VI.B1, a farming product storage and processing quarter was discovered, divided by a narrow street into two sections for processing agricultural and livestock products. The first production area contained grain storage pits and ovens; the second, a wood-covered platform and drainage channel for the slaughterhouse (Palmieri 1981: 102-110; 1982: 203-211).

Pottery kiln remains were observed at the Early Bronze Age monument near Lorut village (Devejian 2001: 12) and at Dagestan's Velikent settlement. At Velikent, the pottery firing kiln was separated from the main settlement and located on the stream bank, representing an excellent example of a segregated workshop (Munchaev 1975: 174).

At Karnut, a complete copper-processing cycle was documented—from ore enrichment to ingot preparation—despite the absence of nearby copper deposits, with copper imported as semi-finished product from the Erzurum region (Badalyan 1984: 230; 1996: 40). Fioletovo's ancient inhabitants specialized in copper production and ore enrichment (Gevorkyan & Palmieri 2001: 11-13).

A coppersmith's workshop was excavated in Shengavit's central section, lower horizon, where a working clay-plastered platform, fragments of 10 vessels for storing cast copper with traces of molten copper on walls, furnaces, and a collection of ore-processing tools were documented (Simonyan 2001: 34). Vessel walls internally displayed burnt layers, copper inclusions, and droplets, presumably formed from contact between the vessel and molten, heated metal when liquid copper, as semi-finished product, was poured into decommissioned vessels (Simonyan 2002: 24). A pottery sherd with copper deposits was also discovered at Agarak (Tumanyan 2012: 97).

Using Shengavit's example, we can reconstruct one phase of copper processing. Enriched ore was smelted and copper casting poured into vessels of 0.5-3 liter capacity (based on sherd reconstruction of vessel types and sizes), then transported to the workshop in the city's central area. When needed, vessels were broken, ingots extracted, and weapons,

ornaments, and tools manufactured. If we multiply the workshop vessels' total capacity—0.5-3 L × 10 vessels = 5-30 L—by copper's specific gravity (8.9), we obtain 45-270 kg, averaging 150 kg, corresponding to the total quantity of copper stored here as semi-finished product. This represented enormous wealth for its time. Such copper quantities must have been intended not only for the needs of ancient Shengavitians but also for trade (Simonyan 2012: 28-31).

It is no coincidence that just 15 kilometers from Shengavit, the "Yerevan Hoard" was accidentally discovered—comprising various types of copper weapons and tools totaling several dozen kilograms. Robbers plundered part of the hoard, but even the preserved collection delivered to the History Museum of Armenia is impressive—22 artifacts (Martirosyan & Mnatsakanyan 1973: 122-127). Spectral elemental analyses of metal objects from Shengavit, particularly copper deposits on pottery sherds, and samples from the "Yerevan Hoard" indicate identical chemical composition, imported from the Shamlugh-Alaverdi copper deposits (Meliksetian et al. 2003: 311-318). This circumstance suggests that copper from the same deposits and objects cast from them must have been manufactured in the same location—the skilled artisan center of Shengavit.

At Baba Dervish, three copper-smelting furnaces were discovered, which, as at Velikent, were located at the settlement's periphery (Ismailov 1978: 9-10; Kushnareva 1993: 232). In contrast, Mokhrablur's furnace operated directly within the settlement. The furnace, constructed from vertically placed bricks on a thick "pillow" formed from sand and clay, was discovered in Mokhrablur's Layer VIII, adjacent to large circular Room N37. The furnace was internally polygonal and externally plastered with a thick clay coating, giving it a cylindrical appearance. The lower section featured an opening through which oxygen was supplied to the furnace fire. Notably, this furnace, probably used for firing pottery, operated for a considerable time. Ash and waste from the fire covered Room N37's entire surface (Areshyan et al. 1979: 206-207)²⁵.

At Amiranis Gora's lower construction horizon, a metalworker's workshop was excavated with a smelting

²⁵ We have already addressed this so-called 'kiln' and concluded that within a settlement—particularly inside a cultic center—the community could not have tolerated the operation of a kiln with toxic emissions. We believe that this was not a kiln, but rather a cultic basin (in its structure and ash content comparable to the sacrificial chamber of Shengavit), where the sacred ashes from the hearth were preserved (see Simonyan 2013: 31–32). This interpretation is further supported by the fact that the large Room N 37 at Mokhrablur was entirely covered with a layer of ash, as were the adjacent rooms of the cultic structures at Shengavit.

furnace and specially ground charcoal, which, burning in the furnace, could ensure high temperature. Adjacent to the furnace stood a vessel filled with charcoal and bellows (Chubinishvili 1971: 57).

At Shengavit, stone and clay mold-templates for manufacturing balance weights were discovered. Notably, Shengavit's template weight measures are comparable with weight units documented in the Levant and Troy that had international application during the Bronze Age (Simonyan et al. 2019: 34-52). Early Bronze Age commercial relations are also evidenced by commodity-money made from marine shells. The site yielded numerous other valuable archaeological finds—stone mold for casting battle axes, stone whetstones, bronze, bone, obsidian, and flint arrowheads, numerous tools including plowshares, grindstones, mortars, flint sickle inserts, storage pits for barley and wheat reserves covered with tuff lids—all testifying to developed craftsmanship.

At Agarak settlement, evidence of metalworking was similarly discovered: tin (one example), arsenic bronze knife blade, wire, pendant, semi-tubular adze, awls of various sizes, fragments of clay molds for casting axes, and a terracotta crucible. These finds, along with the aforementioned pottery sherd with copper deposits, provide grounds for concluding that Agarak also possessed a copper-casting workshop (Tumanyan 2012: 97).

PALATIAL STRUCTURES

Within the Shengavit culture, the structures of Norşuntepe's horizons VII and VI, as well as the Arslantepe settlement's horizon VI.B1 building, can be interpreted as palaces. Characteristically, Norşuntepe's palatial structure occupied the settlement's central upper section, known as the Acropolis, which was fortified. The citadel's palatial complex (construction horizon VI) revealed a storage complex comprising four large structures with mud-brick walls. One of these buildings' storage room floors had 98 pithoi anchored in place. Pithoi were present in other buildings as well (Hauptmann 1972: 74-75, table 59/1). This represents an enormous quantity even for later, far more developed socio-economic formations. This colossal economic complex,

fortified citadel, and palatial building provide substantial grounds for concluding that during the second half of the third millennium BCE, a significant urban settlement had developed on Norşuntepe hill in the Kharpert valley (HCP, Vol. 1, 1996: 68).

Exceptionally noteworthy are the monumental buildings of the Shengavit culture, excavated in 1981 at Kghzyak Blur (Adablur) by Grigor Areshyan's expedition, whose thick walls were formed from 3-4 brick courses. For reference, Shengavit culture structures were predominantly built with single or double-row brick courses. These monumental buildings were unfortunately significantly damaged by earthwork operations in the upper stratum (Areshyan & Asatryan 1985: 202).

RESIDENTIAL ARCHITECTURE

The structure of dwellings, their external and internal decoration, dimensions, and annexes—storage rooms, courtyards, storage pits, and others—contain important information about ancient societies' socio-economic structure, traditional lifestyle, ethnic infiltrations and resulting domestic changes, locally available construction materials, architectural-construction technologies, climatic conditions, and other phenomena.

Above-ground structures founded on stone foundations have been documented, with rare semi-subterranean and subterranean houses. Wall construction employed stone (basalt and tuff), river pebbles, mud brick, and branch-woven frameworks plastered with a mixed clay plaster. Roofs were covered with beams, tree branches, reeds, and compacted clay layers.

During the Early Bronze Age in the Armenian Highland, residential dwellings with various floor plan solutions and configurations were documented. In Northern Armenia, including Shengavit, both circular and rectangular floor plan structures were excavated. Circular floor plan houses predominantly measure 6-8 meters in diameter. Large structures with 10-meter, even 12-meter diameters, were also documented.

Based on dwelling dimensions, Artak Gnuni subdivides circular floor plan houses into three groups: small structures up to three meters in diameter (Gnuni 1996: 134). These were primarily documented in Shengavit settlements' lower horizons—Mokhrablur's layers 9-11, dwellings 42 and 43 (Areshyan et al. 1979: 207), Yanik Tepe's lower layer (Kushnareva & Chubinishvili 1971: 91), lower layers of Gharakepek-Tepe and Ali Bayramli (Ismailov et al. 1985: 23; Ibragimov 1985: 24; Sagona 1984: 62), and others. We believe these small houses belong to the Shengavit culture's early phase, preserving Chalcolithic cultural traditions.

According to Artak Gnuni, the second group of dwellings features diameters of 4-8 meters. This dimension was most widespread in Shengavit culture bearers' domestic life (Burney & Lang 1971: 60-61; Gnuni 1996: 135). Circular floor plan structures of these dimensions were distributed throughout the entire Shengavit culture area—at Shengavit, Mokhrablur, Shresh Blur, Elar, Kosi Choter, Hadrut, Misrachay, Kyul Tepe 1 and 2, Yanik Tepe, Güneş Tepe, Shomu Tepe, Meyne Tepe, Norşuntepe, Karaz, Pulus, Khan Ibrahim Shah, Tyulin Tepe, and Kharpert valley settlements (Sardaryan 1967; Burney & Lang 1971; Munchaev 1975; Sagona 1982; Gnuni 1996).

The third group of houses is characterized by large dimensions exceeding 8 meters in diameter. These include Agarak (8.5 m), Nakhchivan's Kyul Tepe 1 horizon 13's House 1 with 13-meter diameter, the so-called public building at Karvachar (22 m)²⁶, and Khirbet Kerak's cultic structure (Abibulaev 1982: 98; Sagona 1982: 84-85).

Houses were primarily constructed from mud-brick. According to Leonard Woolley, such houses could serve their purpose for an average of 30 years (Woolley 1986: 19). Afterward, old houses were typically demolished, and platforms were formed from wall brick fragments, upon which new homes were constructed following the old floor plans. Such construction evidence has been documented at Garni, Khizanaat-Gora, Shengavit, Mokhrablur, Nakhchivan's Kyul Tepe, and other settlements.

In 1979, the joint expedition of Yerevan State University's Armenological Center and the Armenian SSR Academy of Sciences Institute of Archaeology and Ethnography undertook

²⁶ We consider the report identifying this structure as belonging to the Shengavit culture to be highly questionable.

rescue excavations of Norabats's northern and southern hills and the settlement extending between them. The Shengavit culture's early phase settlement occupied nearly the entire surface of the north hill, featuring one construction horizon with two building sub-phases. Ten circular floor plan dwellings with mud-brick walls were entirely or partially excavated here, documenting four types of cultic and economic hearths (Areshyan & Asatryan 1985: 202-203).

At Agarak, a complex of circular floor plan residential houses was excavated, constructed from single-row, flat-laid, large split tuff stones. Two occupy the street's northern side, the third its southern side. The first room features a table-shaped economic structure on its western side, connected to the residential room by a special entrance. The second circular floor plan residential dwelling has a foundation of fieldstones and large river pebbles topped with flat tuff slabs. Adjacent to the west is the "gavit" (vestibule) with an entrance formed from vertically placed stones. The room's other entrance is positioned oppositely, on the eastern side. Impressive is the oval floor plan room on the street's southern side with an internal diameter of 8-8.5 meters and preserved walls 1.5-2 meters high. Its central area featured an irregular rectangular depression. Early Bronze Age structures' walls were plastered inside and out with mixed clay mortar. A fairly regular street section was preserved between the dwellings. This complex dates to the 29th-27th centuries BCE. Unlike other Shengavit culture residential complexes, Agarak's houses were constructed not from mud-brick but from clay-plastered, single-row tuff stones, presumably conditioned by locally available tuff rock and stones—the construction materials at hand.

At Shengavit, mud-brick walls were raised on clay-formed "pillows" during the Early Bronze Age's first phase, and primarily on stone foundations during Shengavit culture's developed phase—EBA 2. Houses with such construction had average "lifespans" of 50-70 years (Woolley 2012: 96-97). This perhaps explains the presence of several floors revealed at different levels within the identical houses, which could have resulted from house renovations. Silent witnesses to such radical renovations are perhaps the various masonry patterns

and different-sized bricks documented at different levels of the identical houses' walls (Simonyan 2014: 82-86; 2015: 149). In such cases, presumably only the upper, deteriorated wall was demolished while preserving the still-stable lower sections, where new walls were built with fresh bricks, significantly different from the old masonry. Precisely such renovations affected the house in square K:6's lower stratum, constructed on a "pillow" with mud-brick walls, whose preserved wall height reached approximately 2 meters (Simonyan & Rothman 2023: 81-86).

In 2000, we excavated approximately 400 square meters in Shengavit city's first sector, deepening 2.5 to 4.0 meters from ground level. More precisely, we re-excavated Sandro Sardaryan's previously excavated section, as wind erosion over time had exposed brick walls that were not noted in previous surveys. The task was to carefully excavate wall remnants damaged during previous work to complete the construction plan. Additionally, by cleaning the western section of the extensive trench formed by prior work—square M:11—a site's stratigraphic section was obtained, which previous archaeologists had never accomplished.

Excavations of this damaged section enabled observation of five construction horizons and six building phases, which we dated through the comparative-historical method to 3000-2600 BCE (Simonyan 2002: 23). Subsequently, precise radiocarbon analysis methods substantiated the reliability of our dating (Simonyan & Rothman 2015: 9-11).

The 2000 excavations at the Shengavit site yielded remarkable discoveries, including seven economic pits and the foundations of both circular and rectilinear dwellings constructed from stone and unfired mudbrick. These structural remains, preserved in certain instances to heights reaching 1.5 meters, reveal sophisticated building techniques characteristic of Early Bronze Age architectural traditions in the South Caucasus.

Construction Techniques and Materials

Distinct patterns emerge in the construction methodology of the lower stratigraphic horizon. The builders employed a systematic combination of unfired mudbricks, river cobbles,

and split stones, utilizing clay mortar as the primary binding agent. This technological approach reflects a sophisticated understanding of locally available materials and their structural properties. The lower stratum features large circular structures that, in subsequent occupation phases, become progressively smaller and are supplemented by adjacent rectangular constructions—a transformation suggesting evolving social organization and spatial utilization patterns.

A particularly noteworthy architectural practice involves the deliberate reconstruction of dwellings atop their predecessors' foundations. New structures were erected directly upon the lower walls of demolished buildings, occasionally with slight positional deviations, indicating both continuity of place and adaptation to changing needs. This superimposition pattern provides crucial insights into site continuity and the cultural significance of specific locations within the settlement.

Of exceptional interest is the application of straw tempered with clay as a binding medium for the river cobbles in foundation construction. We documented such tempered impressions on the earthen platform of a circular structure built from river stones in the upper construction layer of square L:6 (previously designated as No. 4).

Floor Construction and Surface Treatment

The floors were meticulously finished with fine-grained clay plaster, achieving remarkably smooth, polished surfaces. In certain dwellings, these clay-plastered floors reached thicknesses of 10-15 centimeters, exhibiting mirror-like burnished surfaces that testified to exceptional craftsmanship (Simonyan 2002: 22-25). The extraordinary hardness and polish of these floors prompted excavation workers to humorously refer to them as “tile-covered.” During the 2022 excavations in square N5:A, we uncovered a rectangular room in the upper horizon whose floor was initially laid with unfired bricks and subsequently sealed with clay plaster.

Architectural Innovations in Wall Construction

The lower stratum at Shengavit revealed walls constructed entirely from unfired mudbrick (square K:6). This particular room's foundations were encircled by a specialized “cushion” formed from unfired brick and clay—a technique designed to

provide structural stability and moisture isolation. Similar clay and crushed pottery “cushions” reinforcing the foundations of circular mudbrick dwellings have been documented at Goy Tepe in the Lake Urmia basin (HCP, vol. 1, 1996: 36). This tradition of elevating structures on clay platforms for enhanced stability and moisture protection characterizes both the Chalcolithic period and the early phase of Shengavit culture.

The lower stratum also yielded large circular structures with walls composed of a mixed masonry of river stones and unfired mudbrick (Simonyan 2002: 22-25). The most prevalent construction type consisted of unfired brick walls erected upon stone foundations, occasionally plastered with mixed clay render and painted on the interior surfaces. Such dwellings with stone foundations and mudbrick superstructures have been identified at numerous contemporaneous sites, including Kul Tepe 1 and 2 in Nakhichevan, Shengavit, Garni, Elar, Norabats, Goy Tepe, Tepejik 3c, and Mokhrablur (Sardaryan 1967: 174; Khanzadyan 1969: 5, 8; 1979: 16; Esin 1975: 47-48; Abibulaev 1982: 83-99; Sagona 1984: 77-78).

At Mokhrablur’s lowest eleventh construction horizon, we documented a vertical wall constructed from square unfired bricks measuring 16×16 cm, arranged in two rows of alternating light yellowish and dark gray colors. Each horizontal course featured a deliberate pattern: two dark gray bricks flanking each light yellowish brick in succession. This technique represents one of the earliest examples of decorative masonry employing bichromatic contrast for both interior and exterior wall ornamentation—what Grigor Areshyan aptly characterized as “evidence of a rudimentary synthesis between architecture and visual arts” (HCP, vol. 1, 1996: 3).

Structural Support Systems and Multi-Story Construction

Mudbrick structures exhibited both circular and rectangular floor plans, featuring either flat or “thousand-builder” type roofing systems. In the rooms of squares M:5 and N:6, we documented impressions of posts and quadrangular supports—traces of load-bearing pillars embedded within the walls. These construction techniques, combined with the discovery of terracotta three-legged altar stands or architectural models, provide compelling evidence for the

existence of two-story structures at Shengavit (Simonyan 2013: 21, fig. 14).

Elite Architecture and Social Stratification

Our excavations in Shengavit's upper strata revealed distinctive rooms with previously unknown architectural solutions: rectangular halls with stone foundations and mudbrick walls, featuring small rectangular niches prominently separated from the main volume in their southeastern corners. We believe such structures with unique planimetric solutions were numerous in the upper stratum. However, they lay concealed beneath homogeneous, compacted fills of fragmented mudbrick and river stones, requiring meticulous excavation to reveal.

Evgeny Bayburtyan perhaps alluded to such a niche in his excavated Hall B-3 (measuring 14.5×7.5 m), noting somewhat vaguely in the southeastern section: "A small partition was arranged in the southeastern corner of the room (B-3)" (Bayburtyan 2011 [1938]: 29).

Among the upper horizon structures at Shengavit, a rectangular hall covering approximately 150 square meters stands out prominently. Its foundation walls were constructed from small river cobbles supporting mudbrick superstructures. In the hall's southeastern corner, a rectangular niche projected outward from the general mass, separated from the main hall by a partition wall of mudbrick on a river stone foundation. Before this partition wall, with its back against the hall, stood the foundation of a clay-modeled installation—possibly a "throne" with two seats.

During the 2000 excavation of this hall, we discovered an exquisitely polished spherical mace-head crafted from onyx, likely a symbol of patriarchal authority (Simonyan 2002: 25; Simonyan 2015, fig. 31). Unfortunately, previous archaeological excavations had substantially damaged the southern longitudinal wall and adjacent sections of this remarkable structure, leaving the south portion in a disturbed state.

The niche, most probably serving as a "shrine," was separated from the hall by a partition wall. A similar arrangement, with a partition wall dividing residential from economic spaces,

was documented in Room I of Shengavit's lower stratum (Simonyan & Rotman 2023: 43).

Storage Facilities and Agricultural Economy

Within the hall, we uncovered two grain storage silos with cylindrical stone-lined entrances and carefully crafted tuff disc-shaped covers. One exhibited a two-tiered design extending to a depth of 4 meters, capable of storing approximately 4 tons of grain (Simonyan 2004: 59-61). To prevent spontaneous combustion of wheat due to compression, an intermediate floor was constructed in the silo's central section. We excavated another such two-tiered storage pit in 2022 in square M:6C.

Ritual Objects and Social Practices

The great hall also yielded cultic objects, including a large ceramic vessel-mixer, likely intended for mixing alcoholic beverages—wine or beer—with water. From this same building complex came terracotta and stone figurines depicting “Astghik” (female deities) and male figures (Simonyan 2004: 59-61; 2016: 70-80).

This hall significantly exceeds all other known structures of the Shengavit culture in its dimensions. Such an expansive hall-chamber could have accommodated several families of a patriarchal clan. We are inclined to interpret this spacious hall as the patriarchal clan's “great house”—a communal gathering place—or perhaps it served as a “palace,” reflecting the emergence of social stratification and centralized authority in Early Bronze Age South Caucasian societies.

In 2012, we excavated another rectangular room with a similar niche in square I:14, where ritual objects were likewise discovered: a terracotta figurine and a stone phallic pendant-amulet. The cultic artifacts found in these distinctively designed chambers suggest that these niches were designated for ritual ceremonies or functioned as familial prayer spaces. In halls featuring rectangular layouts with separated niches, both domestic (residential) and cultic (prayer and household ritual) functions were likely integrated. Such structures have been documented for the first time across the entire Shengavit cultural sphere.

Karine Kushnareva similarly postulated that family shrines existed during the Early Bronze Age. She identifies ritual hearths as such spaces, particularly those near which figurines of household deities were discovered (Kushnareva 1993: 268). Family sanctuaries have also been uncovered at the Kul Tepe and Karakuyuk settlements in historical Armenia. V. Lamb designates these as “domestic shrines” (Lamb 1956: 87-94).

Remarkably informative evidence regarding this practice is preserved in ancient Elamite cuneiform sources, which document that many families maintained sacred spaces within their homes, dedicated to one or several deities (Frye 2002: 92; Charpin 2013: 218-220).

Alexander Javakhishvili previously proposed that Shengavit’s circular structures served ritual functions, while rectangular buildings were residential dwellings (Javakhishvili 1973: 172). This interpretation was also defended by Karine Kushnareva (Kushnareva 1993: 268). However, our excavations revealed that the planimetric configurations of buildings were not directly correlated with their functional designations. At Shengavit, both residential and cultic structures exhibited circular and rectangular floor plans.

Architectural Evolution: From Tholoi to Rectangular Forms

As noted, circular dwellings with rectangular annexes—tholoi—emerged in northern Mesopotamia during the Halaf culture at Tell Arpachiyah, Tell Turlu, Yarim Tepe, and other sites (Munchaev et al. 1976: 11; Mellaart 1982: 114-115; Munchaev et al. 2004). These architectural complexes, originating in the Chalcolithic period, achieved widespread distribution throughout the Shengavit culture. The earliest such architectural complexes were documented at Norabats (Houses 4 and 9) and in Mokhrablur’s 10th-11th horizons (HAP 1996: 34-35). Buildings with similar configurations were also documented in the northern range of Shengavit culture in Dagestan, at the Chirkey, Gemetyube, and Galgalatli settlements (Gadzhiev 1991: 158).

H. Ertem, based on the substantial quantity of animal bones found in Early Bronze Age rectangular structures, suggested they functioned as stables (Ertem 1973: 63). Stratigraphic observations indicate that during the terminal phase of Shengavit culture, circular structures were gradually

replaced by rectangular residential dwellings, which became predominant in the subsequent Early Kurgan culture.

Architectural Features: Entrances and Access

Among the defining characteristics of architectural designs is the presence and construction of entrances providing access to residential spaces. A prevailing theory suggests that ancient access was achieved through roof openings. However, considering requirements for efficient interior space utilization, security, and thermal insulation, such entrances could not have been widespread during the Chalcolithic-Early Bronze Age. Nevertheless, entrances approximately 1 meter wide have been documented at Agarak, Shengavit, Garni, and Kul Tepe 1 (13th horizon) in Nakhichevan, and Chirkey in Dagestan (Khanzadyan 1969: 9; Abibulaev 1982: 83-99; Gadzhiev 1991: 153). Wooden door “pivot stones” (*krnkakarer*), upon which door posts rotated, were discovered at Shengavit and Kul Tepe 1 in Nakhichevan (Abibulaev 1982: 85, 87).

Courtyards and Workshop Spaces

Rectangular annexes and internal courtyards separated from other settlement sectors by enclosure walls were typical features adjacent to Shengavit culture dwellings. A particularly noteworthy courtyard was documented during the 2000 Shengavit excavations. This irregularly rectangular courtyard, compressed within the residential environment, likely served as a drying workshop for unfired bricks. It was entirely filled with unfired bricks laid on their sides (Simonyan 2004; Simonyan & Rotman 2023: 43). Enclosed courtyards have also been documented at Shengavit, Jrahovit, Hadrut, Yanik Tepe, Imiris Gora, and other sites (Bayburtyan 2011 [1938]: 29; Javakhishvili 1973: 47; Sagona 1982: 62; Amirdzhanov 1987: 76; Khanzadyan 1991: 11). This tradition originated in the Chalcolithic period at Imiris Gora (Javakhishvili 1973: 47).

Interior Design and Spatial Organization

A distinctive feature of Early Bronze Age residential structures was the practice of dividing interior space into two unequal sections—residential and economic—through partition walls. Such configurations were documented at Norabats, Shengavit, Mokhrablur, virtually all 10 strata of Kul Tepe 2 in Nakhichevan, Yanik Tepe, Khirbet Kerak, Gagalatli

in Dagestan, and elsewhere (Amiran 1965: 167; 1968: 317; Javakhishvili 1973: 206-207; Munchaev 1975: 177; Abibulaev 1982: 83, 91; Aliev et al. 1985: 11; HAP 1996: 34-35).

Artak Gnuni justifiably criticizes Alexander Javakhishvili's theory that the emergence of partition walls predetermined the replacement of circular structures with rectangular ones (Gnuni 1996: 136). Stratigraphic observations at Shengavit demonstrate that the tradition of circular building construction persisted for several centuries above the partitioned structure documented in the lower stratum (Simonyan 2002: 18-25).

Hearths and Central Features

Essential elements of interior design included domestic hearths, which, like ritual altar-hearths, were typically positioned in the central portions of houses. Clay-built domestic hearths were excavated in the center of Room 30 in Kul Tepe's 2nd construction horizon in Nakhichevan, as well as in rooms of upper strata. A charcoal accumulation uncovered in the center of one room at Elar likely represents the remains of a domestic hearth. Domestic hearths were also documented at Yanik Tepe and Berikldeebi (Sagona 1982: 62; Abibulaev 1982: 85; Glonti & Javakhishvili 1987: 82).

The placement of domestic hearths in central house areas was likely determined by the positioning of roof openings (*erdik*) for light and ventilation in the central portions of structures, through which smoke would be expelled. This circumstance indicates conical or *hazarashen* (corbelled) roof constructions with centrally positioned upper openings.

Benches and Platforms (*Mastaba*)

Important elements of the Shengavit culture dwelling interiors were bench-platforms (*mastaba*), primarily positioned along walls at Shengavit, Garni, Yanik Tepe, Kul Tepe, Jrahovit, and Norabats. These were platforms constructed from unfired brick or clay, averaging 50 cm in width and height, with lengths of 150 cm. In certain instances, such as the circular dwelling in Garni's second-from-top stratum, the bench extended along the entire wall perimeter. Upon these were discovered pottery sherds, molds for casting shaft-hole axes, and other artifacts indicating the economic functions of these bench-platforms (Khanzadyan 1969: 12).

²⁷ The so-called displacement of the foundations of the column supporting the roof—set with a significant offset from the center—was interpreted by Rafik Torosyan as stones that served as querns (Torosyan 1976: 31, 33). In an academic volume devoted to Armenian architecture, however, this phenomenon has been explained differently, suggesting that such anchor-stones may have existed in multiple instances inside the houses. Moreover, based on this assumption, Grigor Areshyan inferred that round-plan houses with stone column bases had flat roofs (HChP 1996: 39). Yet, in fact, no archaeological site has yielded evidence of several flat-laid stones in such a context. On the contrary, flat, unworked stones placed off-center on the floors of buildings have only been documented in central settlements—for instance, in Room 2 of Horizon 13 at the lower levels of Kul Tepe I in Nakhichevan, where the stone was encircled by small stones arranged in a round shape /another cultic feature—a magical ring/; in Structure 10 of Horizon 9 at Kul Tepe I; in Horizon 8 at Mokhrablur; in several rooms of the upper horizon at Shengavit; and in Horizons 3 and 4 at Yanik Tepe /here the stone was placed in a plastered pit/ (Sagona 1984: 63); as well as at Tsaghka Gora in Georgia (Ckitiešvili et al. 1991: 65), at the settlement of Chirkey, and elsewhere. It is believed that these settlements functioned as cultic centers, with their own sanctuaries.

Exceptions include House 37 in Mokhrablur's 8th construction horizon, which featured a centrally positioned unfired brick bench-bed (Areshyan et al. 1979: 206), and a 0.4×0.5×0.5 m platform-bench uncovered in the center of a house at the Mekegin settlement in Dagestan. Bench platforms were primarily documented in circular structures, though they also occur in rectangular rooms (Abibulaev 1982: 99; Simonyan 2013). Stone-built *mastabas* were documented in dwellings at Sgnakh (2nd level), Kethi (3rd level), and Pulur (Petrosyan 1989: 99; Kosay 1969: 104).

Interior design elements also included low shelves, elevated merely 5-8 cm above the floor, upon which relief-fronted, single-sided decorated vessels were likely placed.

Dwelling Roofs: Construction Techniques and Structural Solutions

The roofing of dwellings represented a crucial challenge for resolving the daily living requirements of Bronze Age inhabitants. For a considerable time, Bayburtyan's reconstruction proposing conical roofs for circular structures has circulated, suggesting that conical roofs were supported by wooden posts positioned on stone anchors (Bayburtyan 2011 [1938]; Piotrovsky 1949: 30; Khanzadyan 1967: 10; Sardaryan 1967: 174; HAP 1996: 34).

We have addressed this question in considerable detail, attempting to reveal the unfounded nature of this hypothesis, and have proposed an alternative in which flat stones positioned with significant deviation from the center were placed at the bases of clay-modeled basins (Simonyan 2013)²⁷. Supplementing our approach, we note that roof-supporting central pillars have not been verified at numerous key Shengavit culture sites: Mokhrablur, Yanik Tepe, Garakepektepe, Agarak, Ali Bayramali, Khizanant Gora, Garni, Norabats, and other settlements. The cultic nature of stones placed on the floors of circular and rectangular structures is substantiated by three flat stones placed atop one another discovered in Structure 10 of Kul Tepe 1's 9th horizon (Abibulaev 1982: 85, 94). It is obvious that stones placed on top of one another without binding mortar are structurally unstable. In contrast, the magical perception of stacked stones

as stairs directed toward heaven has been documented at numerous sites.

A prevailing view holds that rectangular structures featured flat roofs. These were typically covered with beams and branches, subsequently overlaid with a reed layer, then clay plaster, and compacted to achieve waterproofing. The use of reeds in roof construction has been documented during excavations at Mokhrablur, Shengavit, and other sites. Reed impressions are clearly visible in the debris of collapsed clay-built roofs found on floors.

Even with flat roofs, smoke evacuation could be resolved through openings in their central portions, formed according to the *hazarashen* principle through projecting elements (HAP: 43; Javakhishvili 1973: 143). Thus, the central positioning of hearths was intimately interconnected with roof construction. These circumstances may serve as foundations for possible roof reconstructions.

Beyond these canonical situations, hearth placements in front of entrances—a practice employed since the Chalcolithic period—have been documented at Tetri Tskaro and Imiris Gora (Chubinishvili 1971: 49; Javakhishvili 1973: 53), as well as adjacent to walls, such as the ritual hearth excavated in Room 9 at Norabats (Areshyan & Asatryan 1985: 203; HAP 1996: 36).

For heating dwellings, inhabitants also constructed cube-shaped ovens with upward-narrowing walls, possibly featuring vaulted covers with flat upper surfaces, typically positioned near entrances. Heat was expelled through pipe-shaped apertures 5-6 cm in diameter extending along wall lengths. Such ovens have been documented at Mokhrablur, Yanik Tepe, Norabats, Kul Tepe in Nakhichevan, and other sites (Burney & Lang 1971: 60; Abibulaev 1982: 85-87, 92; Areshyan & Asatryan 1985: 203; HAP 1996: 35-36).

Wall Construction Techniques

At the sites mentioned above, circular structures exhibit walls with a slight inward inclination that progresses upward, suggesting they featured false-vault (*corbelled*) roofs (Gnuni 1996: 137). Charles Burney and David Lang erroneously attribute the collapse of Yanik Tepe's structures with forward-leaning brick walls to this "deficiency" (Burney & Lang: 242-243).

CULTIC STRUCTURES:

Religious Architecture and Sacred Spaces in Early Bronze Age Armenia

Our understanding of Early Bronze Age religious beliefs derives from fragmentary archaeological evidence—structures associated with worship, figurines of household deities, and specific elements of burial rites. A comprehensive investigation of these materials, combined with a comparative analysis of Ancient Near Eastern written sources, enables at least a partial reconstruction of the spiritual and religious worldview of the Shengavit culture bearers, the indigenous inhabitants of the Armenian Highlands. We may postulate that the Early Bronze Age religion of the highlands, while constituting a distinctive system, was simultaneously integrated within the Ancient Near Eastern religious sphere, sharing certain commonalities with beliefs prevalent in Mesopotamia and Elam.

Based on material evidence analysis, we can conclude that the religious beliefs of Shengavit culture bearers gave precedence to the cult of the “Great Mother” goddess. The worship of nude figurines representing the feminine principle, originating in deep antiquity, became intimately intertwined during the Early Bronze Age with veneration of the phallus as a symbol of the masculine principle. Serpent sculptures also emerged as masculine symbols of fertilization, depicted on vessels, ritual hearths, basins, and relief carvings.

Evolution of Sacred Architecture

Archaeological and architectural observations demonstrate that early cultic structures did not differ in their structural and planimetric configurations from residential complexes (as at Çatalhöyük). However, transformations in social order and socio-economic development precipitated changes in ideological perceptions and, consequently, in the architectural forms of cultic structures. The emergence of proto-urban settlements and early cities provided the foundation for fundamentally new types of cultic buildings.

During the Early Bronze Age, religious complexes were developed, with their central structures featuring volumetric-spatial configurations that distinctly separated them from both

surrounding buildings and settlement structures. The concept of the “temple” emerged—structures that, through interior decoration and, in some instances, external appearance, sharply differentiated themselves from residential buildings. To emphasize the central volumes of cultic complexes, builders utilized both natural topographical opportunities (Amiranis Gora) and the formation of plazas before temples (Mokhrablur, Shengavit).

Major Cultic Sites and Sacred Complexes

Several sanctuaries and cultic structures have been documented in Early Bronze Age Armenia. An exceptionally distinctive complex was excavated on the southwestern foothills of Mount Aragats, in the eastern suburbs of Talin city, at an elevation of 1,600 meters above sea level. Beneath a mound 1.5 meters high and 23 meters in diameter, ritual platforms (4.8×10 m and 5.9×9 m) formed from river cobbles were uncovered. These platforms were covered with pottery sherds, animal bones, and ash, and were separated from each other by a narrow corridor. The platform edges were enclosed by walls constructed from large stones. On the eastern side of the east platform were two terraced ground anchors. The ritual platform was surrounded by contemporaneous (EBA 1: 3,300-3,000 BCE) burial mounds, beneath which group burial stone chambers and dromoi were exposed (Simonyan & Gnuni 1998: 83; Avetisyan et al. 2010: 161-163). This provides grounds to conclude that the Talin ritual platform was dedicated to otherworldly forces, for whom sacrifices were periodically performed.

A ritual-cultic structure was discovered in Javakheti at the Amiranis Gora settlement near Akhaltsikhe. This consists of a rock-cut corridor terminating in a rectangular ritual platform (Chubinishvili 1971: 130).

The Metsamor cultic complex comprises a central “temple,” numerous rock-cut structures, and an observatory. According to Elma Parsamyan’s astronomical observations, the latter dates to the first half of the 3rd millennium BCE (Khanzadyan 1998: 30). We believe that the attribution of the “temple” and rock-cut structures to the Early Bronze Age still requires examination and substantiation.

²⁸ In our view, attributing these rock-cut structures primarily to the Early Bronze Age is highly debatable. The site contains numerous carvings not only from the Middle and Late Bronze Ages, but also from the Urartian and Medieval periods. We are convinced that the several dozen sarcophagus-type rock-cut tombs, intended for both adults and children, date to the Early and High Middle Ages, whereas the viticultural complexes—grape-pressing basins, fermentation vats, and wine-storage pits—belong to the Antique and Urartian periods. Consequently, we may conclude that this unique cultic complex was established as early as the Chalcolithic period and continued in use uninterrupted until the Middle Ages.

The Agarak Sacred Landscape

The Agarak site extends along the southeastern foothills of Mount Aragats, in the Aragatsvotn district of the Ayrarat region of Greater Armenia. It is located in the foothill zone at an elevation of 1,100 meters above sea level, on the right bank of the Amberd stream. From 2001 to 2008, a massive rock-cut cultic complex of the Early Bronze Age was investigated in the southern part of Agarak village in Armenia's Aragatsotn Province.

On yellow-orange tuff rock outcrops covering approximately 150 hectares, numerous features were documented: niches, rectangular and circular basins, pits of various dimensions, wide and narrow channels connecting them, rock-cut tombs, caves, stairs, terraces, diverse altars, and other installations (Avetisyan 2003: 54; Avetisyan 2008: 41-44; Badalyan & Avetisyan 2007: 26; Tumanyan 2012: 89)²⁸.

This extensive sacred landscape represents one of the most significant ritual complexes of the Early Bronze Age South Caucasus, demonstrating the sophisticated religious architecture and complex spiritual practices of the period's inhabitants.

Major Temple Complexes of the Early Bronze Age The Khirbet el-Kerak Temple Complex (Mid-3rd Millennium BCE)

Located in Palestine, this distinctive temple complex occupies one of the settlement's districts and encompasses approximately 1,200 square meters (30×40 m) with a rectangular floor plan. The complex is enclosed by a stone wall 10 meters thick, within which seven cultic chambers are embedded in a cellular arrangement. These chambers, measuring 7-9 meters in diameter with stone foundations and unfired brick walls, extend in straight rows before forming angles. Prominently projecting pilasters divide the internal spaces of the structures into four equal compartments. It is hypothesized that false-vault (corbelled) roofs were supported upon these pilasters (Greenberg et al. 2014: 44-45, fig. 2.11). Essential components of the complex included ritual hearths and wheat storage silos, the latter perhaps indicating an established temple economy (Sagona 1982: 82).

The Mokhrablur Temple Complex

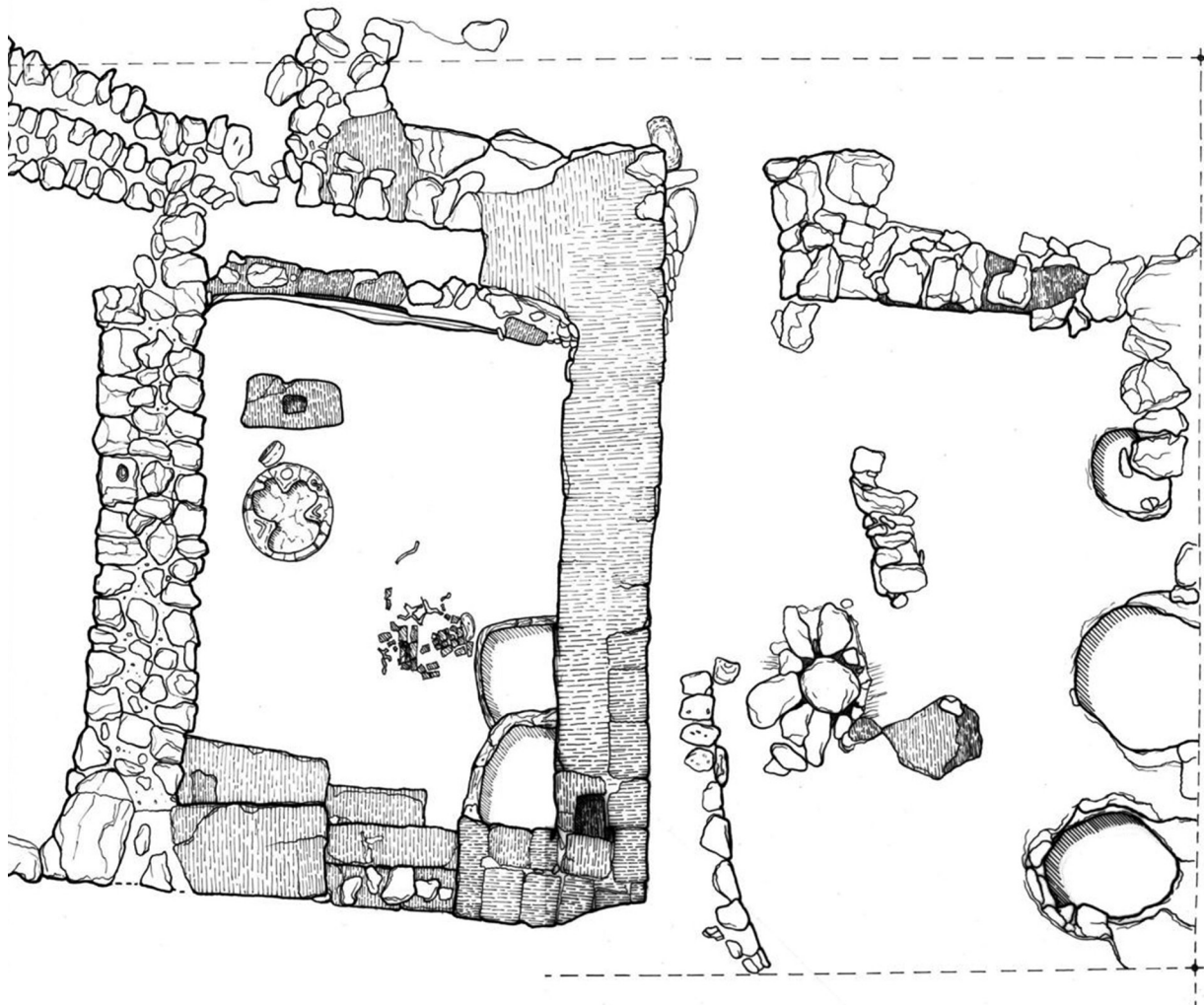
During the 1970 excavations, approximately 5 meters below the hill's summit in the central plaza of Horizons III and IV (accounting for the upper two Hellenistic and Early Iron Age strata), a cubic cultic tower with a rectangular floor plan was uncovered (wall length: 5.4 m, height: 4.5 m). This structure was erected upon a compacted, thick clay platform using standardly worked basalt and black, hard tuff stones, bonded with clay mortar enriched with lustrous crystals. The foundation platform consisted of flat-laid medium-sized rocks, upon which walls of larger stones were raised.

Atop the tower forming the structural axis of the complex, offset from the center toward the plaza and parallel to the longitudinal wall, stood a massive altar carved from a single piece of unworked basalt, measuring 3.9 meters in length and 0.7 to 1 meter in width. The surface clearly displayed traces of wooden wedges used to separate the monolith from the bedrock. This single stone, weighing approximately 7 tons and utilized as an altar during the temple's final phase, must have been transported to Mokhrablur from a quarry at least 8-12 kilometers distant.

According to Grigor Areshyan, during the temple's first and second construction phases, the monolith stood erected atop the tower, creating with it a vertical axis 9-10 meters high at the proto-city's center. The combination of tower and vertically positioned monolith manifested an explicit intention to reproduce the earth-heaven axis (HAP, vol. 1, 1996: 66).

Beneath the tower walls stood smaller stone stelae, their bases reinforced with river cobbles. The tower's longitudinal walls, renovated multiple times, achieved a length of 7.4 meters and were precisely oriented along an east-west axis (Areshyan & Kafadaryan 1975: 397-403; HAP, vol. 1, 1996: 66; Areshyan 2007: 26-54). The golden-gleaming crystals embedded in the clay mortar binding the stones sparkled in sunlight, imparting particular splendor to the temple in contrast to the settlement's gray unfired brick structures (Areshyan 1978: 8; 1982: 256-258).

The Mokhrablur temple was spatially segregated from residential structures. West of the tower extended an open space where assembled crowds could observe sacrifices and



ritual ceremonies performed on the high tower platform. From here, streets branched toward residential complexes (HAP, vol. 1, 1996: 66).

Sacred Fire and Ritual Practices

North of the stone structure forming the temple complex's volumetric core lay ruins of unfired brick buildings, significantly disturbed by excavations preceding our work. Conditions were more favorable in the section south of the tower. Here we excavated a clay-plastered ritual platform, unfired brick annexes, and ash pits filled with burned bones of animals and birds mixed with ash (Simonyan & Gnuni 1998: 82). These testify to a sacred eternal fire maintained in the temple, upon which sacrificed animals and birds were immolated.

According to ancient beliefs, sacred fire ash could not be discarded, as contact with impurities would defile it and consequently provoke divine wrath. Based on this concern, Early Bronze Age peoples deposited sacred ash in specially designated basins and pits. This same ritual has been documented at the Shengavit settlement and at Alalakh (Woolley 1986: 40-43).

In the renowned temples of the Ancient Near East, animal and bird sacrifices were performed almost daily. Primarily, “pure” animals were sacrificed: sheep, bulls, goats, and birds. Particularly numerous were the “purification” sacrifices performed during spring and autumn equinoxes in honor of gods and goddesses. It is not coincidental that the festival dedicated to the Elamite Great Mother goddess Pinikir was known as the “Day of Bloodshed” (Hinz 1977: 56-57).

The Jrahovit Tower and Related Monumental Architecture

The Jrahovit complex consisted of three concentric or spiral circles with circular floor plans, constructed from unfired brick, each measuring 7-8 meters in diameter and nested within the other. At their center rose a solid cylindrical tower, 3 meters in diameter, with a hearth-altar on its summit platform. This structure functioned through three construction phases, corresponding to building horizons 5 through 3. The discovery of a shaft-hole axe mold has provided grounds for dating the tower to the developed phase of the Early Bronze Age. This structure has been unequivocally accepted as a cultic building and proclaimed as a temple (Khanzadyan 1991: 11; Kalantaryan 2005: 41-42, fig. 25).

The limited nature of excavations and inadequate stratigraphic documentation, along with the absence of a comprehensive scientific report or article, has deprived us of the opportunity to determine the actual significance of this monumental structure. This massive tower bears striking resemblance to the thick mudbrick columns erected before palaces of the Early Dynastic period at Alalakh Stratum XII (Syria), and at Erech and Kish (Mesopotamia), mentioned in the Old Testament (Woolley 1986: 44). Furthermore, while the Alalakh palace columns measure 2 meters in diameter, the Jrahovit tower significantly exceeds this at 3 meters.

According to Artak Gnuni, the Jrahovit tower resembles the Samshvilde tower, which also has a rectangular room attached (Mirtskhulava 1979: 70-71). A cultic structure composed of two concentric circles was revealed in Stratum D of the Khizanant Gora settlement (Javakhishvili 1973: 135).

Structures consisting of concentric circles have also been discovered at Yanik Tepe 1 and in Room 42 of Mokhrablur's 11th stratum. Notably, at Mokhrablur, the space between the two circles was filled with fragments of broken vessels, which, according to the excavating archaeologist, were intended to keep the structure dry (HAP 1996: 36). The cultic structure at Khirbet Kerak also consists of concentric circles (Burney & Lang 1971: 60).

The Shengavit Tower Discovery

A structure bearing remarkable similarity to the Jrahovit tower was excavated at Shengavit in 2022—a solid cylindrical tower with a jar base affixed to its summit, surrounded by traces of fire. The tower's foundation walls were laid with river cobbles, upon which walls of unfired brick were raised. Adjacent to the foundations lay collapsed, unfired bricks from the demolished walls within a thick ash layer. The situation documented in the excavated section suggests periodic renovations of the tower and regularly performed cultic ceremonies involving fire.

Only one quarter of the tower has been excavated, from which we can determine that it measured 6 meters in diameter. We believe the tower-columns at Jrahovit and Shengavit were part of exceptional monumental structures. Their complete excavation will shed new light on our understanding of Armenia's ancient architecture and the cultic practices of the Shengavit culture.

These monumental towers represent a distinctive architectural tradition within the Early Bronze Age South Caucasus, potentially serving as focal points for community rituals and possibly functioning as cosmic axes connecting earth and heaven in the religious cosmology of their builders. Their substantial dimensions and central positioning within settlements underscore their significance in the social and spiritual life of these early urban communities.

THE SHENGAVIT TEMPLE: A CULTIC COMPLEX OF EXTRAORDINARY SIGNIFICANCE

In 2012, an exceptionally distinctive complex was excavated in the upper stratum of the settlement's northern sector (square M:5), consisting of two rooms adjoining along a longitudinal blind wall extending north to south. The western section, Room N1, is a semi-subterranean hall with a rectangular floor plan, covering 27 square meters externally (6×4.5 m). The foundation walls, 75-77 cm thick, display tripartite construction in cross-section, built from river cobbles and split basalt. The construction technique characteristic of Midian masonry was employed: facing stones of large dimensions with smaller stones filling the interstices. In the room's southwestern corner, a massive, unworked basalt boulder was positioned as a foundation stone (Simonyan 2012: 103-106).

Upon the stone foundation of Room N1, walls were erected from double-coursed, plano-convex unfired bricks with rectangular, slightly convex upper surfaces, varying in dimensions: 41×28 cm, 43×29 cm, 44×30 cm, 46×23 cm, 50×28 cm in area and 8-9 cm in thickness. The bricks were laid longitudinally on one side and transversely on the other. In the southeastern corner, a rectangular void preserved in the brick coursing likely represents the trace of a wooden post positioned vertically within the wall. Before our excavations, probably as a result of Sardaryan's work, the unfired brick walls on the western and northern sides had been destroyed.

Interior Features and Sacred Installations

The stone and brick sections of the walls were internally plastered with a clay coating, which displayed clear traces of black paint. The clay-modeled relief decorations adorning the altar's facade were also painted black, as was the wall of another cultic structure uncovered in the adjacent square J:5 (Simonyan 2015: 149-159).

The preserved height of Room N1's eastern and southern walls reached 95-105 cm, which we believe corresponds to the thickness of the settlement's upper construction strata. For comparison, the thickness of the upper Stratum IV identified by Sandro Sardaryan in the museum's adjacent test trench measured 80 cm (Sardaryan 2004: 288).

A beautifully formed entrance, 90 cm wide, was positioned in the eastern section of the southern longitudinal wall. Its lateral walls were plastered with a clay coating up to 3 cm thick. A three-step stairway descended from the entrance into the semi-dark, mysterious interior. The threshold displays ingenious construction: first, unfired bricks were laid, then river cobbles secured with clay mortar were placed atop them, creating durable step-platforms resistant to foot traffic and slow to deteriorate.

The Altar and Fire-Altar Complex

Opposite the entrance, in the room's northwestern quarter, a crescent-shaped altar approximately 50 cm high was fashioned from clay and unfired bricks upon a stone slab foundation. Based on the rectangular depression in the summit platform, a wooden statue of the deity once stood here. The altar's facade was carefully plastered, featuring a relief border band on the surface with geometric relief designs inside—depressions, nested triangles, and grooved decorations characteristic of Shengavit culture ceramic ornamentation.

Before the altar, embedded in the clay plaster covering the floor, stood an *atrushan* (fire-altar) fashioned from fired clay, measuring 75 cm in diameter and 20 cm deep. This cylindrical *atrushan* bore mysterious relief carvings painted red on its broad, flat upper surface. The fire altar's external walls were also painted red. Here, the altar and fire-altar—the cultic installation and the sacrificial hearth designated for ritual ceremonies—were painted black and red, creating a chromatic interplay. Each color held specific significance, symbolizing the life-death dichotomy.

The *atrushan*-hearth's interior space was divided into three unequal cavities by three projections resembling a ship's prow. Relief spheres on the projection edges symbolized eyes and perhaps embodied the "image" of worshipped animals—rams or bulls. This configuration of triangular cavities of different sizes likely symbolized the concept of the Trinity: Father, Mother, and Son. These fire-altar hearths contained ash and fragments of broken bricks with which the abandoned altar had been "sealed." The presence of ash and fire traces

on interior walls testifies that the eternal sacred fire burned within the altar.

Ritual Installations and Architectural Context

Near the fire-altar lay the sacred libation bowl, while clay vessels crushed in situ on the floor would have collected sacrificial blood, according to Ancient Near Eastern religious written sources. Similar fire-altar hearths characteristic of the Shengavit culture have been discovered in numerous rooms throughout the settlement. While a prevailing view holds that cultic hearths in Shengavit culture sites were typically placed in circular rooms, our excavations revealed *atrushan* fire-altars in rectangular rooms as well. This is logical, as rectangular structures predominated in Shengavit's upper stratum, with the circular building tradition of lower strata having already ceased.

To the left of the entrance to Room N1's cultic chamber, against the wall, stood a bench. Before it, in the section extending to the fire-altar, an ornamental mat had been spread on the floor. Its impression—white interwoven straight lines—was clearly preserved on the floor surface.

To the right of the entrance, two basins of varying depth were constructed from unfired bricks placed edge-to-edge, their walls externally covered with clay plaster. The construction of these basins bears remarkable similarity to the "furnace" in Mokhrablur's Room N37. Green glass fragments were discovered inside the northern, lower basin, while the southern, elevated basin contained ash, pottery sherds, and a fragment of a basalt boat-shaped grinding stone.

We may hypothesize that sacred ash from the *atrushan* was accumulated in the southern basin (as noted, ancient beliefs prohibited discarding sacred ash, as contact with impurities would provoke divine wrath), while the northern basin stored fat from sacrificed animals and internal organs—kidneys—reserved for divination. These elements of "typical" furnishing—a bench against the wall to the left of the entrance, box-like storage compartments of unfired brick on the right—were also uncovered in Yanik Tepe's circular houses. The excavating archaeologists suggest that vessels were placed on benches along the wall perimeter. At the same time, wheat

was stored in box-like compartments (HAP, vol. 1, 1996: 49). We believe such interpretations are unacceptable, at least for Shengavit, as wheat storage silos possessed a distinct construction: underground pits with stone-lined cylindrical entrances and hermetically sealing tuff disc-shaped lids designed to prevent rodent access to food stores.

Reed impressions on the floor and in higher strata of Shengavit's Room N1 indicate that reeds were used in roof construction. The presence of the altar and fire-altar, where eternal fire burned and burnt offerings were performed, suggests the roof must have featured an opening (*erdik*) for smoke evacuation and illumination, through which, according to ancient beliefs, the worshipped deity could descend to the altar.

The Temple Complex: Architecture, Ritual Practice, and Sacred Economy

Architectural Features and Multi-Story Construction

The northern wall of cultic Room N1 exhibited double-layered construction: parallel to the inner wall, an outer wall was positioned approximately 0.5 meters distant. Unfortunately, previous excavations had damaged the outer wall, leaving it in a disturbed condition. A narrow corridor clearly existed between these two walls. Remarkably, at Yanik Tepe, in the Early Bronze Age Phase II Room N5 (24 square meters), a similar double wall measuring 2 meters in length was uncovered opposite the entrance, along half the longitudinal wall. Within this inter-wall space, traces of beam attachments were observed at various heights above the floor. This suggests that this Yanik Tepe room was two-storied, with a stairway platform to the second floor formed using the supplementary wall and beams secured to both walls (HAP, vol. 1, 1996: 50).

The newly discovered Shengavit cultic room parallels the Yanik Tepe two-story structure in its chronology, planimetric design, dimensions (27 square meters), and double-wall presence. Additional evidence for the two-story nature of Shengavit's M:5 square room includes the post trace in the southeastern corner, which would have served as a structural framework for wall reinforcement.

Ritual Objects and Sacrificial Practices

Ritual-magical objects discovered within the cultic room include: a) A sacrificial implement—a sharpened aurochs horn designed for piercing the sacrificial animal's chest, b) The deliberately broken head of a terracotta bull figurine with large horns, c) A stone-carved phallic amulet, likely belonging to the temple priestess, d) A human finger phalanx, possibly evidence of finger sacrifice performed here²⁹.

Ancient temples were not designed for large congregations. Moreover, believers' entry was prohibited; only the priest, the priestess, and perhaps the sacrificer possessed the right to enter the temple. The cultic room's modest dimensions apparently reflect this circumstance.

The Economic Wing and Temple Administration

An economic chamber adjoined the cultic hall from the east, sharing a common blind wall with the ritual hall and forming an integrated complex. The economic room's central area contained two pits. One pit featured a stone-lined, excellently formed cylindrical entrance sealed with a tuff disc-shaped lid, with pear-shaped walls widening downward. Carbonized wheat grains preserved within substantiate their function as a grain storage silo. At the tuff lid level surrounding the silo, a hard and rather thick clay-plastered platform, bearing traces of fire exposure, suggests that food processing and preparation occurred here. The room was entirely filled with ash layers.

Additional evidence of economic activity includes the lower slab of a boat-shaped basalt grinding stone, secured at the room's entrance threshold against the western wall. Grain was likely ground directly at the room's threshold and sent inside for bread baking or food preparation.

In this room's other economic pits, which have irregular edges and earthen floors, fragments of broken vessels were discovered, including a clay strainer likely intended for cheese production or beer brewing. Unlike the cultic hall with its southern entrance, the economic room's entrance faced north. Thus, the complex's entrances opened in opposite directions—the economic room to the north, the cultic room to the south—perhaps reflecting their different functional designations.

²⁹ In general, the sacrifice of a finger has symbolized, in the beliefs of many peoples, a necessary act after which individuals acquired the freedom to act independently. In the ancient world, the sacrifice of the little fingers of girls who had reached puberty was widespread; only thereafter did they obtain the right to enter into sexual relations. Perhaps one of the allegorical reflections of this rite appears in the following episode of John Ronald Reuel Tolkien's renowned mythopoetic canvas: the main hero, Frodo, is freed from the enchantment of the all-powerful "Ring of the Lords" by losing his finger, which the fateful figure—Gollum, transformed into a monster—bites off together with the Ring. In our view, it is not accidental that Tolkien, a profound connoisseur of ancient mythology and the Bible, considered the loss of a finger as the key to the dramatic resolution, allowing the hero who had set out to fight evil to be released from the enchantment of the "Ring of the Lords."

The integration of ritual and economic divisions within the same volumetric composition substantiates our hypothesis that the structure is a temple. Considering the documented importance of fire in ritual practice here, we provisionally designated this temple as the “Fire Temple” (*Hro Tachar*) (Simonyan 2012: 103-106).

The Temple Plaza and Sacred Economy

To complete the complex and substantiate our proposed interpretation, we excavated the area south of the cultic complex in 2020-2022. As expected, the area facing the temple complex, covering more than 400 square meters, lacked construction. Here were approximately 30 economic pits and grain storage silos. The economic pits primarily belonged to the upper, post-temple period, while the silo-pits with stone-lined entrances sealed by tuff lids were contemporary with the temple. This reality demonstrates that during the temple’s operation, an extensive plaza existed before its entrance, where the stone-lined mouths of storage silos, sealed with tuff lids, rose approximately 50 cm above the plaza surface. During ritual ceremonies, crowds gathered in this plaza, and the grain they brought as offerings to the gods was deposited into the storage silos in everyone’s presence.

Ritual Practices and Symbolic Architecture

The uncovered temple complex represents the best-preserved and documented Early Bronze Age cultic structure known to date. According to our reconstruction, eternal fire burned in the *atrushan* before the wooden statue of the deity fixed upon the altar, upon which libations and burnt offerings were periodically performed. In honor of the gods, they burned the fat of sacrificed animals (a ritual widespread in virtually all ancient peoples’ beliefs), whose smoke ascended to heaven through the temple’s roof opening.

The fire, hearth, and room’s configuration mystically relate to the traditional Armenian *hazarashen* house as an embodiment of the macrocosm (universe): the center is the hearth, a unique well leading to the underworld. Opposite the hearth, in the center of the vaulted cover, would have been the smoke evacuation opening—the *erdik*—which, together with the hearth, formed the house’s vertical axis, embodying the cosmic

axis presented as the union of two mirrored, opposing parts. Between the lower (hearth) and upper (*erdik*) worlds, fire served as mediator, whose extinction equated to society's destruction (Demirkhanyan & Florov: 83-84).

Comparative Contexts and Regional Connections

The Shengavit temple bears remarkable similarity to a structure excavated at Tell Judeideh (Antioch Plain), where, as here, unfired brick walls were placed upon carefully constructed stone foundations. Like at Shengavit, the temple features a rectangular plan extending north to south. A clay-built compartment occupies the room's southeastern corner. Opposite the entrance stands a cultic hearth, with its rectangular platform on the northern side perhaps representing altar remains. Structures with similar configurations were excavated at Yanik Tepe and Pulur.

Cultural connections between Shengavit and Palestine are also evidenced by distinctive terracotta conical stoppers, previously considered exclusively southern phenomena (Badalyan et al. 2015: 228), which are also present at Shengavit.

Temple Personnel and Ritual Specialists

Mesopotamian and Elamite written sources describe priests who divined using sacrificed animals' livers and internal organs. To communicate with gods, they needed to achieve ecstatic states, for which they used psychotropic plants and alcoholic beverages—wine and beer. Besides priests, temples employed priestesses who performed economic tasks but primarily served as “love attendants.” In the Elamite pantheon, each goddess had her group of priestesses (Hinz 1977: 56-57).

Elements uncovered in the Shengavit cultic complex—the food preparation platform in the economic room, the grain-grinding stone, food storage pits, the clay strainer for beer (alcoholic beverage) preparation, the phallic pendant symbolizing the “love attendant” priestess, the sacrificed human (perhaps female) finger phalanx, the sacrificial horn, the integration of cultic and adjacent economic rooms into a unified complex, and other details—suggest the excavated structure resembled ancient Mesopotamian and Elamite temples, though of considerably smaller dimensions.

Among the finds, two green glass fragments stand out. This represents an exceptionally significant documentation, as it may be the earliest glass known from the Ancient Near East, produced circa 2,700-2,500 BCE. In antiquity, workshops operated adjacent to temples, including those producing glass beads, as attested by Middle Bronze Age Mesopotamian sources.

Additional Cultic Structure

Just 25 meters west of the “Fire Temple,” within the same cultural horizon, Armine Hayrapetyan excavated a structure in 2012. The structure had foundations laid from large basalt stones (100×60×40 cm) and unfired brick walls, rectangular in plan, measuring internally 5×4 meters. Beneath its northern wall was a ritual basin with a clay-plastered floor and walls. The floor preserved traces of a crescent-shaped, clay-modeled altar (dimensions: 110×70 cm) with a circular depression in the center, where a wooden idol was perhaps fixed.

South of the altar, on the fire-baked surface of a circular platform formed from unfired bricks, a portable hearth was likely placed. As evidence, one of two pits uncovered west of the altar was entirely filled with ash. In the room’s southeastern corner was perhaps a column’s clay-plastered base. Adjacent to this, on the clay-plastered floor, were depressions of various dimensions and organic drop-shaped remains. The excavating archaeologist interprets these as traces of lamps with fatty combustible materials at their ends, fixed to the floor (Hayrapetyan 2012: 52). However, similar depressions documented at Early Bronze Age sites of Kvatskhelebi, Khizanant Gora, Amiranis Gora, Mingechaur, and Kharpert-Malatya have been interpreted as traces of posts supporting covers for open-air workshops or other working environments in courtyards (Kushnareva 1993: 75-76).

In 2012, remnants of clay hearths and altars were discovered embedded in floors, approximately 10 meters west of the “Temple of Fire,” within the third construction horizon from the surface. The sixth horizon yielded fragments of decommissioned and “aged” hearths that had fallen out of use. Evgeny Bayburtyan’s excavations documented similar cultic clay hearths across all stratigraphic horizons

(Bayburtyan 2011 [1938]: 28). This evidence demonstrates that the tradition of installing ritualistic clay hearth-altars before sacred platforms at Shengavit emerged from the settlement's inception and persisted for centuries.

As previously noted, Sandro Sardaryan's excavations at Shengavit yielded over a dozen tuff-carved figurines, though regrettably, these lack proper archaeological documentation. These rudimentary tuff sculptures likely functioned as stone idols positioned adjacent to clay-formed hearth-shrines (Simonyan 2013: 14, fig. 4-6). Wooden cult statues were also crafted, as evidenced by contextual finds.

Architectural Features and Cultic Installations

Examination of more than ten previously excavated chambers at Shengavit, along with their detailed plans, reveals clear evidence of hearth installations paired with unworked, natural stone slabs in their vicinity. Evgeny Bayburtyan interpreted these as foundation stones for wooden pillars supporting conical roofs (Bayburtyan 2011 [1938]: 27, 31, schema 1), an interpretation that has gained widespread acceptance.

However, we propose an alternative interpretation. These stone slabs, often significantly offset from the center and occasionally positioned nearly against walls, could not have served as bases for central roof-supporting pillars of conical structures. Such support pillars, and consequently their anchor-slabs, would necessarily be positioned at the geometric center of circular structures. Instead, these slabs likely formed the foundations for clay-built altar-platforms, similar to those documented in the "Temple of Fire." The clay superstructures either failed to survive or were destroyed during inadequate excavations.

The basalt slabs designated for altars, paired with adjacent hearth installations, are clearly visible in Shengavit's excavated building plans. These features, we argue, attest to the structures' sacred character. The ritual hearths documented at other Kura-Araxes culture sites undoubtedly served ceremonial and religious functions. If this interpretation proves valid, we may conclude that approximately ten "temples" operated simultaneously within the Shengavit settlement.

Comparative Religious Contexts

Contemporary Elamite written sources provide supporting evidence for this interpretation, documenting numerous temples and sanctuaries within single settlements. The upper city of Susa, for instance, housed multiple temples dedicated to various deities (Hinz 1977: 50). Considering that over ten cultic structures have been uncovered within the same stratum, we may reasonably hypothesize that Shengavit's pantheon comprised numerous deities.



An Elamite text dated to 2,260 BCE enumerates thirty-seven deities: the "Mother of Gods," Ishtar goddess of love and passion, the "Ruler of Heaven," the "Lord of Susa," the "Father of Weak Mortals," the "Master of Gods," the "God of Oaths," the "Ruler of the Netherworld," the "Creator of Daylight" (the sun god), the lunar deity, and the "God of Judgment, Law, and Justice," among others (History of the Ancient East, Part 1, 1983: 404).

Perhaps, as in other Ancient Near Eastern centers, Shengavit's inhabitants constructed individual temples for specific deities. Following established conventions, these sanctuaries contained unworked basalt slabs supporting mud-brick altars crowned with wooden and stone cult statues. Before these installations, permanently burning clay hearths were embedded in the floors. Based on Ancient Near Eastern textual evidence and the numerous figurines recovered, we may infer that Shengavit's population venerated the "Great Mother," who protected women in childbirth, as well as the love and passion goddesses Astghik-Ishtar (Simonyan 2004: 60-61).

The simultaneous operation of multiple cultic structures suggests that, like the religiously complex societies of the Ancient Near East—Egypt, Mesopotamia, Elam, and elsewhere—Armenia possessed a priestly class with an established spiritual hierarchy (Kushnareva 1993: 272).

HYDRO-ENGINEERING STRUCTURES

The Early Bronze Age in Armenia witnessed the critical development of irrigation systems. Remnants of river-blocking dams have been discovered near Mokhrablur, along the dried riverbed of the Kasakh River. Archaeological test excavations revealed that Early Bronze Age communities blocked the Kasakh riverbed with three mud-brick dams, creating an artificial reservoir. This complex system of canals and channels directed water to adjacent fields, irrigating approximately 40-45 hectares (Jalalbekyan 1974: 157-158).

Similar dams likely existed near Shengavit in the Hrazdan River valley (Simonyan 2018: 4). The field adjacent to Shengavit represents the only extensive river valley in the Yerevan basin easily irrigable with Hrazdan's waters. For irrigated agriculture, ancient Shengavit's inhabitants could accumulate the flooding river's waters in artificial reservoirs constructed on the valley's elevated slopes, or establish artificial terraces on river branches during summer, as at Mokhrablur. These installations enabled water collection systems that irrigated the valley floor, yielding abundant harvests of cereals and fruits.

Indirect evidence for artificial reservoirs near the Early Bronze Age Shengavit includes carp bones weighing up to 32 kilograms discovered during excavations. These fish typically inhabited lakes rather than rivers, including artificial water bodies (Simonyan 2013: 8).



During spring floods, the Hrazdan valley's lowlands were likely covered with fertile alluvium, ensuring abundant grain harvests. Stepan Esayan and Karine Kushnareva support this interpretation, proposing that barriers constructed on the Hrazdan River near Shengavit created artificial reservoirs whose waters irrigated the surrounding extensive valley (Kushnareva 1993: 210). According to Esayan, Early Bronze Age Shengavit's inhabitants irrigated approximately 100 hectares with Hrazdan's waters (Esayan 1969: 13). Our calculations indicate the valley extending

from Shengavit to Karmir Blur encompassed 125 hectares. Theoretically, ancient Shengavit's population could harvest up to 3,600 tons of grain from this valley, stored in extensive granary-pits (Simonyan 2018: 3-5).

Mountain Irrigation Networks

Early Bronze Age irrigation systems left traces in the Geghama Mountains and on Aragats's slopes. Ancient hydraulic engineers, drawing on centuries of experience, studied mountain water distribution systems, including snow cover formation, preservation, and melting times; water reserves; spring positions; stream flows from snowmelt and rainfall; and resulting lake formations. By utilizing topographical features, they created complex networks of interconnected water conduits with natural gradients. Ashkharbek Kalantar mapped the vast and sophisticated irrigation systems encompassing Armaghan in the Geghama Mountains and the entire southern slopes of the Aragats massif. These comprised springs, reservoirs, natural and artificial lakes interconnected in irrigation networks extending dozens of kilometers (Kalantar 1994: 31-35).

The water distribution map of Mount Aragats is carved on the rock face of Metsamor. The reservoir locations, terraced by artificial embankments including Black Lake, were so masterfully selected that for millennia they continuously replenished from Aragats's summit ice fields, often appearing as natural lakes.

The Aragats and Armaghan irrigation systems were prerequisites for the Ararat Plain's high agricultural productivity during the Bronze Age (Simonyan 2000: 70-72). These distinctive irrigation networks could only be constructed and maintained through massive human labor supervised by a centralized authority. At crucial points of these mountain irrigation systems, built through enormous effort, stood water-guardian monuments unique in the Ancient World—massive fish-shaped and stele-form vishap sculptures carved from monolithic stones (Simonyan 2012: 38-40). A developed irrigation system comprising springs and reservoirs has also been documented at the Early Bronze Age settlement of Sgnakhner.

FUNERARY ARCHITECTURE: SOCIAL MEMORY AND MORTUARY PRACTICES

Ancestors persist in a distinctive domain of collective consciousness—commemorative narratives that ensure the past's perpetual presence in human cognition and prevent ruptures between past and present. Burial rituals constitute a unique sphere of these “memory narratives,” designed to preserve vivid remembrance of deceased kinship members while facilitating their successful transition to the afterworld. These objectives were pursued through sepulchral architecture and the deposition of personal effects with the deceased—integral components of mortuary ceremonial practice.

The architectural configuration of Early Bronze Age tombs, along with the quantity and typology of grave goods—personal belongings, ornaments, weaponry, insignia of authority, implements, and sacrificial fauna—diverges substantially from the mortuary assemblages documented in Chalcolithic contexts. The period from 3,300-2,300 BCE reveals both the evolution of afterlife conceptualizations and the intensification of social stratification, reflecting fundamental distinctions between Chalcolithic and Early Bronze Age societal structures.

Social Stratification and Mortuary Wealth

Archaeological evidence demonstrates that mortuary wealth in antiquity corresponded directly to the deceased's social status. Chalcolithic burials from Anatolia (Çatalhöyük) and the Armenian Highlands (Voskehat, Mokhrablur in Nakhichevan, Alikemek Tepesi) exhibit extreme poverty levels. Funerary offerings appear in merely one-third of excavated tombs, indicating that over 65% of the population lacked resources to deposit personal items or perform sacrificial rites (Alekshin 1986: 25). Even among the affluent strata, grave goods remain remarkably impoverished in both variety and quantity. Tombs typically contained single vessels, with exceptional cases reaching a maximum of four items (Kushnareva 1993: 261-262).

This pattern underwent a dramatic transformation during the Early Bronze Age, reflected in both settlement patterns and mortuary contexts. Analysis of monumental tumuli, expansive

stone-walled burial chambers, and associated ritual practices indicates substantial improvements in living standards under conditions of economic growth. Research from Western Asia documents a decline in unaccompanied burials from 65% during the Chalcolithic to 35% in the Early Bronze Age (Kushnareva 1993: 271).

We propose that the persistence of unaccompanied burials primarily reflects the emergence of pronounced social stratification and enslaved populations in Western Asia's developed societies. Such individuals' tombs would predictably lack funerary offerings.

Regional Variations in Mortuary Practice

The Armenian Highlands exhibit significantly fewer Early Bronze Age burials without grave goods compared to Mesopotamia or Egypt. This pattern reflects both the relatively prosperous conditions of middle and lower-class social strata—facilitated by metal ore exploitation—and less extreme social stratification.

Cases documented across the Armenian Highlands and South Caucasus demonstrate the continuation of early agricultural traditions through sub-floor burials within dwellings (Mokhrablur). However, the Kura-Araxes period witnesses the predominance of formal cemeteries near settlements, featuring isolated tombs and burial mounds with diverse architectural configurations and multifaceted ritual signatures. These attest to complex belief systems regarding the afterlife among Kura-Araxes communities, who conceived the deceased as requiring sustenance and liquid refreshment in death, with tombs serving as intermediaries between this world and the next. Consequently, tombs contained ceramic vessels filled with provisions and liquids, personal effects, and symbols denoting social position, with particular attention paid to architectural elaboration.

Emergence of Funerary Architecture

According to Grigor Areshyan, the Kura-Araxes period witnessed the genesis of a distinctive architectural tradition—sepulchral architecture. This era saw the emergence of burial mounds (kurgans) with sophisticated stone constructions beneath: at Tregk (kurgans XIX and XXIV) and the southern

foothills of Mount Aragats at the Mayisyan cemetery (kurgan No. 10, featuring stone walls, pyramidal covering, and south-facing entrance) (Areshyan 1985: 63-64). Areshyan attributes the origins of kurgan culture in the Ancient Near East to the Armenian Highland's indigenous populations: "Burial mounds represented new anthropogenic elements introduced into the Armenian Highland landscape" (History of Armenian Architecture, vol. 1, 1996: 67).

Archaeological Evidence from Key Sites

At Amiranis Gora, approximately fifty Early Bronze Age tombs were excavated, positioned either beyond the settlement or within abandoned suburban areas, paralleling the pattern at Shengavit. Mortuary practices at Amiranis Gora included:

- Stone-lined cist graves with ovoid ground plans
- Pit graves covered with stone-earth "armor"

At Samshvilde, Early Bronze Age interments occurred in pit graves with rectangular or circular plans. Elar yielded twenty-one Kura-Araxes culture tombs structurally analogous to Amiranis Gora burials (Khanzadyan 1979: 36-50), featuring both ovoid stone cists and earthen pit graves (Kushnareva 1993: 270).

Within the territory of historical Armenia, Kura-Araxes culture tombs remain relatively scarce. Several burials were excavated near Bulur (Pulur), with one collective burial chamber at Ernis (Burney 1958: 182-189). Iranian territory has yielded virtually no documented Kura-Araxes burials, while Dagestan produced a single collective tomb with an ovoid plan at Shebokh (Gadzhiev 1986: 25-26).

Late Early Bronze Age Transformations

The terminal phase of the Early Bronze Age witnessed radical transformations in kurgan construction, burial chamber architecture, and mortuary ritual. Stone-walled family crypts proliferated, accommodating periodic interments of community members or, more plausibly, patriarchal lineage groups. These familial sepulchers contained 4-5 to 10-11 individuals, with exceptional sites (Tkviavi, Stepanakert, Joghaz) yielding 40-50 skeletons.

These architectural and ritual innovations reflect fundamental social transformations, marking the transition from communal

to lineage-based burial practices and the crystallization of hereditary social hierarchies that would characterize subsequent Bronze Age societies in the Armenian Highlands.

The Jrvezh (Avan) Cemetery: Early Mortuary Traditions

Approximately 150 meters east of Yerevan's Duryan and Charents districts, along the western slope of a watershed ridge, are Early Bronze Age burial mounds of the Kura-Araxes culture extends across roughly 10 hectares and dates back to the mid-4th millennium BCE (Badalyan 2014: 74-78). Their excavation holds crucial significance for understanding the formative phase of Early Bronze Age culture.

The excavated tombs consisted of uniform, lenticular stone-earth tumuli measuring 15 meters in diameter and 1.2-1.4 meters in height. Beneath these structures, cromlechs of irregular circumference—9 meters in diameter—were constructed from contiguous medium-sized basalt stones. These belong to the category of so-called “pitless graves.” Within the stone “armor” of the burial mounds, archaeologists recovered Early Bronze Age pottery sherds, obsidian fragments, and boat-shaped grinding stones fashioned from vesicular basalt.

Architectural Features and Burial Practices

In the central portions of burial mounds, tomb walls were constructed on bedrock foundations using unworked volcanic basalt slabs positioned orthostatically or laid flat in 2-3 courses (diameter: 2 m, depth: 0.5 m). Elongated passages—dromos entrances—were configured on the eastern sides of burial chambers with ovoid or circular plans. These passages, initially “sealed” with transversely positioned slabs, maintained open communication with the tomb chambers. At the junction points between entrance passages and burial chambers, carefully arranged stone pavements were revealed, bearing evidence of sacrificial animal remains and obsidian fragments.

Within the tombs, archaeologists documented human skeletal remains (up to 7 individuals) covered with ash-mixed mud plaster, up to 9 ceramic vessels crushed in situ, and bone arrowheads. Burials performed through cremation and dismemberment rites were accompanied by sacrifices of small

horned animals. Following completion of burial ceremonies, protective stone-earth tumuli were accumulated over the tombs (Tumanyan 1992: 12-13; Muradyan 2012: 183-189).

The cromlechs—magical circles arranged around tumulus perimeters—were constructed based on beliefs about preventing malevolent forces from entering tombs. For identical apotropaic purposes, unworked obsidian fragments were scattered over burial chambers (Simonyan 1988: 79-81).

Significantly, the Jrvezh cemetery already manifested nearly all essential characteristics of Armenian funerary architecture: stone-earth tumulus construction, stone “armor,” magical circles (cromlechs), entrance passages, stone-lined walls for chambers and dromoi, the custom of scattering obsidian fragments for protective purposes, and cremation and dismemberment rites—traditions preserved continuously until Christianity’s adoption (Simonyan 2018: 27-45).

The Joghaz Cemetery: Complex Mortuary Architecture

Located in Berkaber village, Tavush Province, Republic of Armenia, along the right bank of the Oskepar (Joghaz) tributary on the left side of the Aghstev River, this site underwent systematic investigation from 1986-1988 by Yerevan State University’s Archaeological Research Laboratory expedition (directors: Grigor Areshyan and Hakob Simonyan). The research encompassed approximately 2 kilometers of archaeological complexes along the reservoir’s southern shore.

Site Components and Chronology

The documented archaeological sequence includes:

- Kura-Araxes culture settlement and cemeteries
- Early Middle Bronze Age and Late Bronze Age burial mounds
- Classical period settlement and burials
- Developed and Late Medieval village sites.

The earliest monuments belong to the Kura-Araxes culture, dated from the second half of the 4th millennium to the first half of the 3rd millennium BCE. The extensive Early Bronze Age settlement and cemetery occupy the locality known as “Meydanner.”

Tomb Typology and Distribution

The discovered tombs are classified into two categories:

1. Individual pit graves: Over twenty excavated examples
2. Collective burial chambers: Three semi-subterranean structures with stone-lined walls

These extended approximately 300 meters along the slope from east to west.

Joghaz Tomb No. 1: A Collective Burial Chamber

Tomb No. 1's walls were constructed with double-course masonry, while the northern wall featured triple-course construction. The stones' faces were deliberately flattened. One longitudinal wall incorporated an entrance-like opening.

The preserved strata of Joghaz Tomb No. 1 yielded approximately 50 human skeletons covering the entire chamber floor. During each successive interment, bones from previous burials—cleaned of soft tissue—were displaced to accommodate the new deceased. These periodically performed burials were arranged in three distinct layers. When the tomb floor became covered entirely with skeletal remains from earlier burials, subsequent deceased were placed atop previous remains. After filling the second layer, third-layer interments commenced.

Material Culture and Ritual Evidence

The tomb assemblage included:

- Sacrificial animal bones
- Approximately sixty black-burnished ceramic vessels, crushed in situ
- Bronze ornaments
- A bivalve ceramic mold
- Beads and additional artifacts.

These findings illuminate complex mortuary practices and beliefs regarding death and the afterlife among Early Bronze Age communities (Simonyan 2009: 215-222, fig. 1, 3).

The evidence from both Jrvezh and Joghaz cemeteries demonstrates sophisticated funerary traditions, reflecting hierarchical social organization and elaborate

conceptualizations of post-mortem existence that would profoundly influence subsequent mortuary practices throughout the Armenian Highlands.

The Shengavit Cemetery: Urban Mortuary Practices

Sandro Sardaryan excavated nine tombs at Shengavit, while our investigations documented an additional eleven burials. All twenty interments discovered to date were located on the gently sloping southwestern flank of the citadel, descending toward Lake Yerevan. These burials, positioned outside the fortification walls in the abandoned suburban area, date to the terminal phase of the Kura-Araxes culture (Simonyan 2008: 81-93).

The majority of tombs consisted of simple pit graves, though stone-lined burial chambers were also documented. Rectangular tombs (3×2 m) featured walls constructed from stone and mud-brick, with floors fashioned from small river pebbles. Following burial ceremonies, the chambers were sealed with clay plaster. According to Sardaryan, these tombs architecturally resembled residential structures. They functioned as lineage crypts, each containing over ten individuals representing extended family members (Sardaryan 2004: 370). Both individual and collective burials were excavated.

Burial Customs and Social Stratification

Mortuary practices encompassed flexed lateral positions, dismemberment, and cremation rites. Advanced social stratification is evidenced by grave goods fashioned from precious metals—gold and silver—alongside bronze, semi-precious stones including carnelian, jasper, jet, marble, travertine, limestone, tuff, bone, marine shells, faience, and glass ornaments and beads.

During the terminal Kura-Araxes phase, beyond collective burials, individual elite male interments appear, as exemplified at Telmankend. The cromlech-encircled Tomb No. 1 yielded an arsenical bronze spearhead with a socketed blade, a smoothing tool, and quadrangular arrowheads. Cemetery Tomb No. 2, a stone-built chamber, featured a corridor-type entrance passage (Mahmudov 1979: 5).

Elite Burials and Status Symbols

Elite representatives were interred in expansive pit chambers beneath burial mounds at Khachenaget. Chamber No. 2 contained bronze daggers, a scepter head, a cylindrical gold seal, obsidian blades, and black-burnished ceramics characteristic of Kura-Araxes culture (Kushnareva 1993: 271).

In northwestern Azerbaijan's burial mounds—excavated by Yervand Lalayan (1915) near Nizh village and S. Ghaziev (1961) at Dashli Tepe near Kabala—collective burials were discovered covered with irregularly deposited stones. Clear evidence of cremation and dismemberment rites was documented. Scholars propose that elite individuals in this region underwent dismemberment, while commoners were interred supine with flexed limbs (Akhundov 2001: 12).

The Voskehat Cemetery: Architectural Innovations

Excavations conducted by the author in 2023 at the Voskehat village cemetery in Aragatsotn Province provide crucial insights into early tumulus construction. These Kura-Araxes tombs, dated to 3,500 BCE, were constructed following a sophisticated sequence:

Construction Methodology

1. Foundation Preparation: The natural surface of gravel and bedrock outcrops was leveled to create burial platforms. Selected platforms were carefully plastered and smoothed with clay coating.
2. Chamber Construction: Basalt stones were arranged around burial platforms, primarily in ovoid configurations. Walls reached 2-3 courses in height.
3. Burial Deposits: Interments were accompanied by 1-3 ceramic vessels, obsidian tools, and blades.
4. Protective Covering: Burial chambers were sealed with “stone armor” consisting of accumulated stones.
5. Tumulus Construction: Stone-earth mounds were accumulated over tombs, surrounded by cromlechs of contiguous, unworked basalt stones forming irregular circles.

Apotropaic Elements

To protect tombs from malevolent forces, obsidian fragments were scattered over burial mounds and within chambers. Certain tumuli featured stones with paired cup-marks resembling eyes. Tomb No. 32 yielded a human face sculpture displaying carved eyes as depressions and a horizontal mouth slit.

Architectural Innovation in Tomb No. 31

Tomb No. 31 exhibited exceptional construction quality, featuring:

- Stone-lined entrance passage with cromlech
- Chamber constructed from imported tuff slabs positioned vertically and covered with horizontal capstones
- Northern longitudinal wall with each successive course corbelled inward.

This represents the earliest evidence of false-arch construction in the Armenian Highlands. Particularly noteworthy is the technique of connecting paired wall slabs with diagonally positioned stones—a method that was subsequently widely applied in residential architecture to reduce roof openings and form smoke holes.

These architectural innovations and mortuary practices reflect sophisticated engineering knowledge and complex belief systems regarding death and the afterlife, demonstrating the advanced cultural development of Early Bronze Age communities in the South Caucasus region.

CONCLUSIONS

Archaeological evidence increasingly substantiates the hypothesis that settlements featuring monumental architecture and cultic complexes—including temples—should be recognized as proto-urban centers (Tobler 1950; Merpert, Munchaev 1982; Kubba 1998; Munchaev et al. 2004; Amirov 2006). This interpretation fundamentally reframes our understanding of Early Bronze Age social complexity and urbanization processes in the ancient Near East.

The convergence of monumental construction, specialized religious architecture, and concentrated populations

represents a critical threshold in the trajectory toward urban civilization. These proto-urban settlements demonstrate the organizational capacity for large-scale architectural projects, the presence of religious institutions with dedicated spaces, and the social stratification necessary for complex society formation. The archaeological record from sites like Shengavit and contemporary settlements across the Armenian Highlands and greater Near East reveals communities that had transcended simple agricultural villages to become regional centers of religious, economic, and political authority.

This proto-urban characterization carries significant implications for understanding the emergence of early state formations and the development of urban planning traditions that would define subsequent Bronze Age civilizations throughout Western Asia.

SUMMARY

The cultural heritage of the Eurasian region has profoundly influenced the ancient art of the Armenian Highlands, a relationship central to understanding the origins of the spiritual consciousness of the indigenous ethnos. Armenia represents one of those rare regions where phenomena characteristic of late cave art have survived as vestiges of ancient traditions, manifesting distinctive iconography of themes and symbols. Rock shelter paintings are dominated by stylized animal contour figures executed in a linear-schematic technique.

Proximate to the Tigris-Euphrates basin, Armenia emerged as one of the centers of prehistoric civilization where the earliest art forms originated, particularly monumental architecture and rudimentary sculptural representations.

Rock Art Traditions

Among the most enigmatic phenomena of prehistoric art is the rock art culture. This tradition encompasses transformations of realistic forms, mysterious symbolism, stylization elements, linear plasticity, pictographic tendencies, and semantic-mystical interpretative elements. Armenian petroglyphs constitute an integral component of the vast Eurasian continental tradition extending from the Pacific to the Atlantic, yet maintain their distinctive character linked to mythological worldviews and cosmological perceptions. The quantity and diversity of rock art attest to the Armenian Highlands' status as one of the cradles of petroglyphic artistic tradition.

The Kura-Araxes Cultural Complex

In the Armenian Highlands during the 4th-3rd millennia BCE, the Early Bronze Age Kura-Araxes (Shengavit) culture emerged, persisting for approximately one millennium. Through temporal expansion, it encompassed over 1.5 million square kilometers, stretching from the North Caucasus to Palestine and from Central Anatolia to Central

Iran. It maintained consistency in archetypes and artifacts—objects, architectural configurations, decorative motifs, and burial customs—harmonizing spiritual consciousness and predispositions.

Both mortuary practices and decorative arts of the Kura-Araxes culture reveal traces of Indo-European thought and mythology, which subsequently became comprehensive throughout Armenian Highland art during the Middle and Late Bronze Ages. Ceramic specimens saturated with complex symbolism are particularly exceptional. Their decorative motifs incorporate elements and compositions that germinated in Shengavit's formative cultures, and continued directly into the Middle Bronze Age.

Metallurgical Arts and Jewelry

Luxury objects, particularly goldsmithing with ornamental symbolism and artistic refinement, occupied a distinctive position in Armenia's Early Bronze Age art. These traditions continued into the Middle Bronze Age, preserving and perfecting volumetric forms and the charm of material expressiveness.

Harmonious with this art are the decorative motifs and chromatic plasticity of Bronze Age domestic and ritual objects, with their curvilinear, angular, and spiral expressiveness, particularly through the spatial rhythm of images and the repetition of formal relationships. Especially impressive are the canonical and exquisitely polished scepters and battle axes carved from semi-precious stones, belonging to ancient Armenia's elite representatives

Early Goldsmithing Traditions

The earliest golden ornaments in the Armenian Highlands date to the 5th millennium BCE (Nakhichevan, Sharur district), contemporary with the oldest goldsmithing specimens discovered in the Balkans. The 4th millennium BCE yields finds from Arslantepe, one of the most significant sites in the middle Euphrates, which, like the burial offerings from the Great Maikop kurgan, were likely military spoils.

The oldest goldsmithing examples from the Republic of Armenia date to the 3rd millennium BCE. These are represented by unique specimens fashioned from both precious metals and semi-precious stones—luxury items, symbols of authority, and insignia of “priestesses of love.” Composite necklaces incorporated gold, semi-precious stones, and even glass beads and pendants. Beads likely formed bracelets and embellished ceremonial garments.

The still-limited goldsmithing specimens display canonical forms and standardized decorative patterns, suggesting that prototypes existed from much earlier periods. The geometric ornamental composition of the pendant-amulet from Shengavit possessed complex symbolism, narrating through symbolic language one of the ancient mythological legends prevalent in the Armenian Highlands.

Archaeological Discoveries and Mythological Narratives

In 2022, at Sayburç village near the Euphrates River—a Portasar culture site—Eylem Özdoğan discovered a large stone slab (70/90 × 370 cm) dated to the 11th millennium BCE. Through relief carving, it depicted an ancient myth composed of two interconnected compositions with five figures:

- a) A man with pronounced genitalia (round face, large ears, thick lips, protruding eyes), wearing a necklace or scarf, surrounded by female and male leopards in profile, facing the viewer (en face) in high relief.
- b) A relief depicting a massive bull attacking a six-fingered man in semi-profile position with bent legs, holding an elongated rod (snake?).

The bull’s head is depicted turned to display both massive horns. This vaguely recalls the famous “Acrobats and Bull” theme from Knossos Palace in Crete. The predators in the first theme are depicted with terrifying open jaws, exposed fangs, and raised tails directed toward the man (perhaps one of the earliest depictions of Daniel in the lions’ den?).

The Sayburç reliefs closely relate stylistically to Göbekli Tepe figures. Feline predators are depicted with identical exposed teeth, open jaws, and raised tails. Bull heads, as at Portasar,

are carved on the frontal plane with spread massive horns. The only difference is the more careful finishing of Portasar sculptures.

These newly discovered compositions present nearly all styles and techniques of ancient sculpture: relief, high relief, frontal figures (*en face*), semi-profile, and the depiction of the bull's body in profile with the head shown from above. While four figures on the slab are reliefs, the man holding his genitalia is in high relief, emphasizing his central character role.

Conclusions

The primary goldsmithing collection reaching us was discovered at Shengavit. This circumstance once again emphasizes this Early Bronze Age site's exceptional role in ancient Armenia's socio-economic, political, and religious- cultural life.

The distinctiveness of individual finds testifies to the master craftsmen's creative freedom and individual skills. Simultaneously, we witness mastery of advanced technologies and technical innovations, along with the production of standardized luxury items, crafted with executive expertise, such as temple ornaments featuring one-and-a-half spirals. Armenia's Early Bronze Age goldsmithing could only have been created under conditions of established goldsmithing schools or at least a skilled artisan class.

During the terminal Early Bronze Age phase, a refined school of polychrome goldsmithing with subtle color transitions germinated, characteristic exclusively of the Armenian Highlands and South Caucasus. Its creative spirit flowed with particular abundance during the Middle Bronze Age, creating exceptional values endowed with barbaric grandeur and classical refinement. The high level of goldsmithing and the elite's standardized aesthetic taste could only develop under conditions of complex socio-economic relations, an established ruling class, and periodic commissions to goldsmithing schools under their patronage.

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**CATALOGUE OF THE BOOK
"THE PREMEVAL ART
OF THE ARMENIAN HIGHLANDS"**

MESOLITHIC PERIOD CAVE PAINTING



Excerpts from cave paintings of “Khosrov Forest” State Reserve (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”, photo by Benik Yeritsyan)



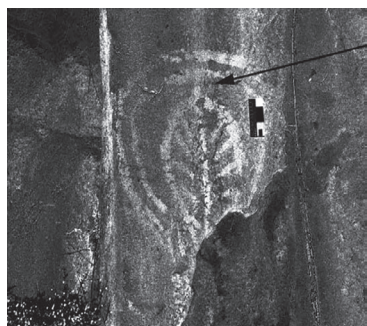
"Karmir qarandzav" (Red cave): cave painting of a wild horse (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”)



"Karmir qarandzav" (Red cave): cave paintings of a deer (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”)



"Karmir qarandzav" (Red cave): cave painting of a deer (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”)



A cave painting of Pokaberd: two semicircles inscribed into each other – goat horns, inside of which the tree of life is depicted (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”)



A cave painting of Kakavadzor: a hunting scene of a feline predator (lion?) attacking a bull (reprinted from the article by Anna Khechoyan and Boris Gasparyan, 2014. “Rock Painting Phenomenon in the Republic of Armenia”)



A "grazing horse" depicted in red ochre on the wall of one of the Ani caves (reprinted from Rock Art discovered in Turkey, 10 Dec 2015)



Mersin: a cave painting image of the Sun god fertilizing the earth (reprinted from <https://iadsb.tmgrup.com.tr/94e48b/645/344/0/66/1500/864?u=h> <http://i.tmgrup.com.tr/dailysabah/2016/09/24/1474667089366.jpg>)

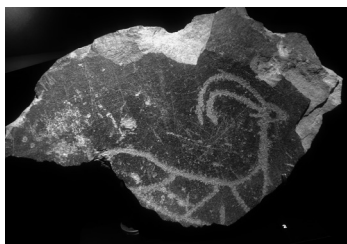
PETROGLYPHS



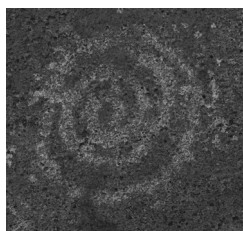
High mountain landscape, typical for petroglyphs (photo by Hakob Simonyan, 2016)



Petroglyphs on the Tirsin Plateau (reprinted from “Neolithic in Turkey” by Özdoğan Mehmet)



Petroglyphs on the Tirsin Plateau (reprinted from “Neolithic in Turkey” by Özdoğan Mehmet)



Murad sar (Murad mount): multi-twisted (curled) spiral (photo by Hakob Simonyan, 2013)



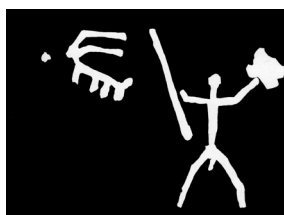
Lori-Pambak regional museum: A multi-layered twisted (curled) spiral on a Shengavtian vessel (photo by Hakob Simonyan, 2005)



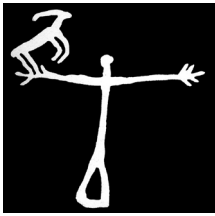
Zar: an idol (photo by Aramays Sedrakyan, 2008)



Murad sar (Murad mount): petroglyph of a hunter with a dog (photo by Hakob Simonyan, 2013)



Ukhtasar: petroglyph of a sky hunter



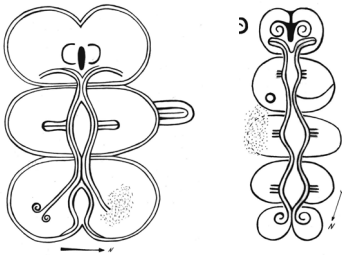
Ukhtasar: petroglyph of the god emitting lightning



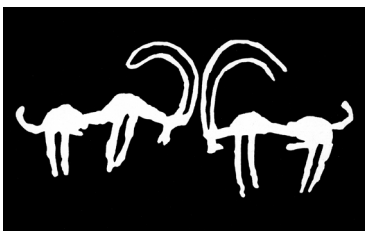
Ukhtasar: petroglyph of the god emitting lightning



Ukhtasar: petroglyph of heavenly goat



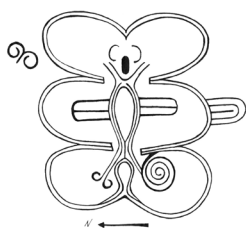
Yugharot: conception scene (pen drawing by Hovhannes Azizbekyan)



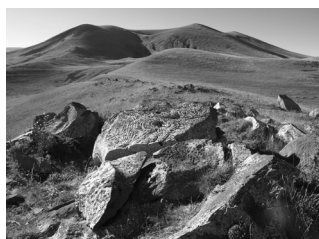
Ukhtasar: petroglyph of battering rams



Tsak sar: petroglyph (photo by Hakob Simonyan, 2016)



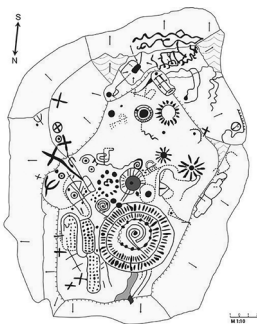
Yugarot: conception scene
(pen drawing by Hovhannes Azizbekyan)



Sev sar (Black mount): general view of the “observatory”
(photo by Hakob Simonyan, 2010)



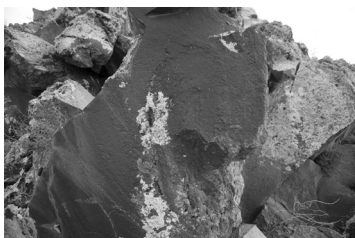
Sev sar (Black mount): the central part of the “observatory”
(photo by Hakob Simonyan, 2010)



Sev sar (Black mount): general view of the “observatory”
(pen drawing by Hovhannes Azizbekyan)



Gomshout: group of petroglyphs
(photo by Samvel Karapetyan, 2012)

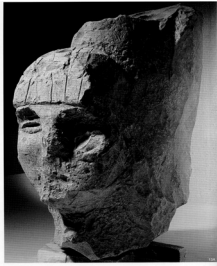


Great Ararat: petroglyph of a ram /horns preserved/
(photo by Hakob Simonyan, 2013)

GÖBEKLI TEPE CULTURE



Nevali Çori: an idol (reprinted from Neolithic in Turkey by Harold Hauptman)



Nevali Çori: Face Sculpture of a young woman
(reprinted from Neolithic in Turkey by Harold Hauptman)



Sayburç: reliefs (reprinted from: The Sayburç reliefs:
a narrative scene from the Neolithic Published online by
Cambridge University Press: 08 December 2022)



Karahantepe: statuette (reprinted from
<https://nplus1.ru/news/2023/10/03/gobekli-tepe>)



Karahantepe: statuette (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsId=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: statuette (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: statuette (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: statuettes (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: room with columns (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: Reliefs on columns (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)



Göbekli Tepe: Reliefs on columns (reprinted from <https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>)

NEOLITH

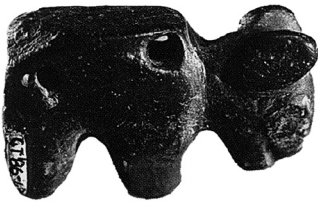
Çayönü Tepesi: figurine (reprinted from Aslı Erim Özdoğan
Çayönü Tepesi)



Çayönü Tepesi: figurine (reprinted from Aslı Erim Özdoğan
Çayönü Tepesi)



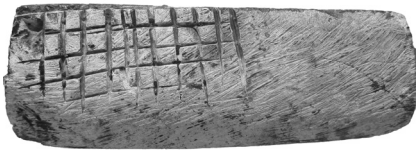
Çayönü Tepesi: figurine (reprinted from Aslı Erim Özdoğan
Çayönü Tepesi)



Shengavit: stone figurine (photo by Hakob Simonyan, 2014)



Masis Blur: a seal
(photo by Hakob Simonyan, 2012)



Masis Blur: a small river-stone ax
(photo by Hakob Simonyan, 2012)





Çayönü Tepesi: a bronze bead (reprinted from Aslı Erim Özdoğan -Çayönü Tepesi)

ARCHITECTURE



Çayönü Tepesi: photo of the foundations of the house (reprinted from Aslı Erim Özdoğan - Çayönü Tepesi)



Çayönü Tepesi: photo of the foundations of the house (reprinted from Aslı Erim Özdoğan - Çayönü Tepesi)

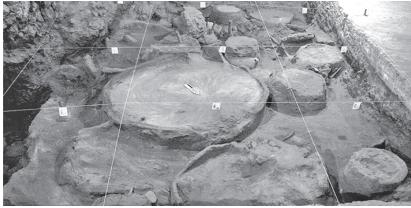


Aratashen: clay buildings (photo by Ruben Badalyan, 2012)



Masis Blur: clay buildings (photo by Hakob Simonyan, 2012)

CHALCOLITH



Areni: wine-making complex
(photo by Hakob Simonyan, 2012)



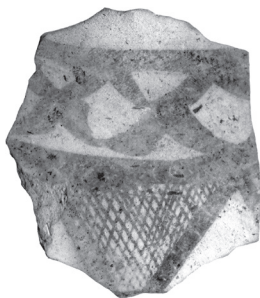
Areni: wine-making complex, Halafian-type painted jug
(photo by Hakob Simonyan, 2012)



Nakhichevan: Halafian-type painted jug



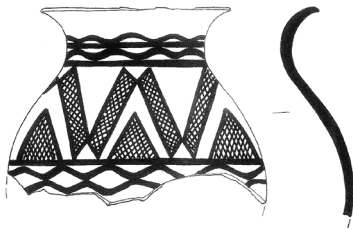
Nerkin Godedzor: a fragment of a painted vessel



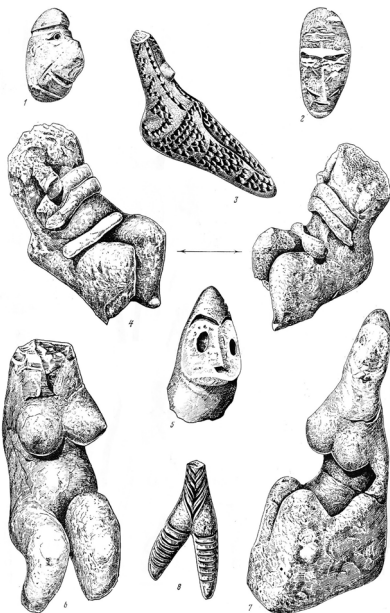
Nerkin Godedzor: a fragment of a painted vessel



Nerkin Godedzor: a fragment of a painted vessel



Nerkin Godedzor: a pen drawing of a painted vessel



Kura river basin: clay figurines from the sites of Arukhlo, Shulaveris-gora, Imiris-gora, Khramis Didi-gora (reprinted from Археология СССР (Археология), 1994)

EARLY BRONZE AGE



Shengavit: a black polished clay bowl from tomb N11 (photo by Vram Hakobyan, 2009)



Shengavit: a painted clay bowl with the image of storks fighting with snakes (photo by Hakob Simonyan, 2009)



Shengavit: a black polished cup (photo by Hakob Simonyan, 2006)



Vessels of Shengavitian culture, History Museum of Armenia



Shengavit: a black polished crucible (storing-pot), History Museum of Armenia



Clay vessels of Shegavitian culture, History Museum of Armenia



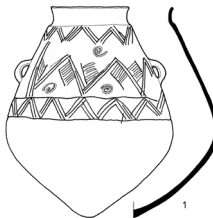
Lori-Pambak regional museum, Kosi Choter: fragment of a vessel with a stylized sculpture of a woman
(photo by Hakob Simonyan, 2005)



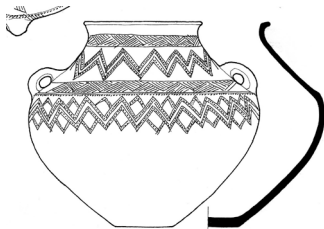
Shengavit: a black polished crucible (storing-pot),
History Museum of Armenia



Lori-Pambak regional museum: a black polished vessel with a sacrificial sculpture of an ax (photo by Hakob Simonyan, 2005)



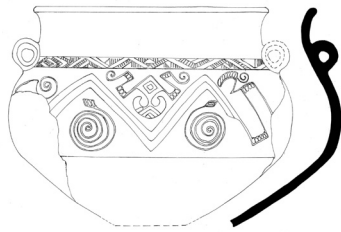
Joghaz, tomb N1: a black polished crucible storing-pot,
(pen drawing by Hasmik Sargisyan)



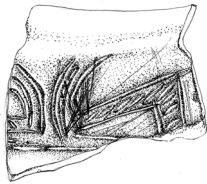
Joghaz, tomb N1: a black polished crucible (storing-pot),
(pen drawing by Hasmik Sargisyan)



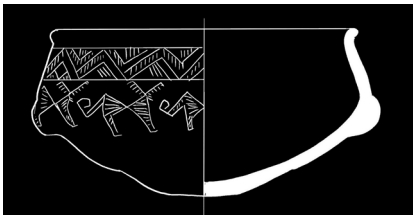
Lori-Pambak regional museum: a black polished vessel with a sacrificial sculpture of an ax
(pen drawing by Taguhi Hmayakyan)



Lori-Pambak regional museum: a black polished vessel with a sacrificial sculpture of an ax
(pen drawing by Taguhi Hmayakyan)



Shengavit: black polished ornamental pottery (pen drawing by Taguhi Hmayakyan)



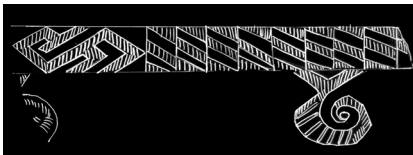
Shengavit: a pattern of black polished ornamental pottery
(pen drawing by Taguhi Hmayakyan)



Shengavit: a pattern of black polished ornamental pottery
(pen drawing by Taguhi Hmayakyan)



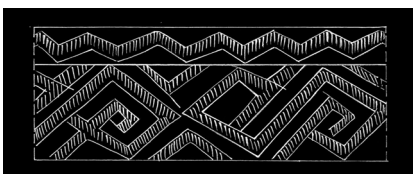
Shengavit: a pattern of black polished ornamental pottery
(pen drawing by Taguhi Hmayakyan)



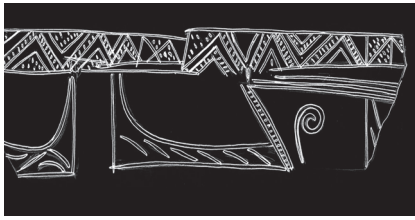
Shengavit: a pattern of black polished ornamental pottery
(pen drawing by Taguhi Hmayakyan)



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(pen drawing by Taguhi Hmayakyan)



Shengavit: a pattern of black polished ornamental pottery
(pen drawing by Taguhi Hmayakyan)

GOLD ART



Shengavit, tomb No. 1: gold pendant, History
Museum of Armenia



Shengavit, tomb No. 1: gold earring, History Museum of
Armenia



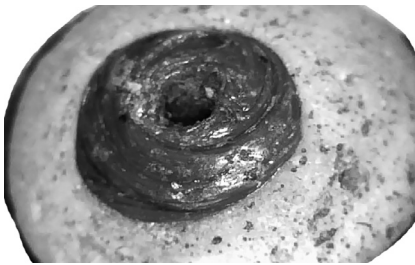
Gorayk, Beg kurgan: gold earring, History Museum of
Armenia (photo by Hakob Simonyan, 2020)



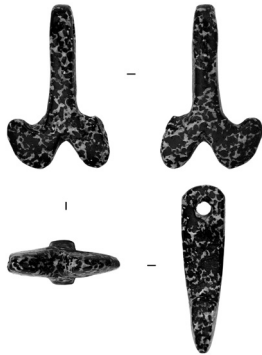
Shengavit, tomb N2: a gold ring, History Museum of
Armenia (photo by Hakob Simonyan, 2013)



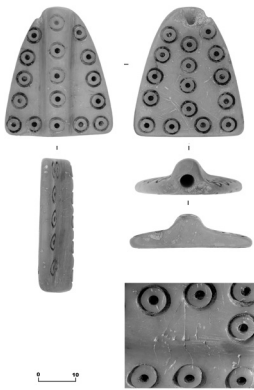
Shengavit: a red jasper amulet with a black eye
(photo by Hakob Simonyan, 2012)



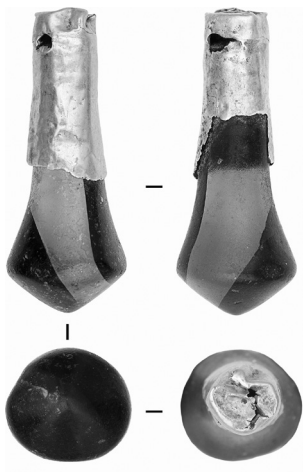
Gorayk, Big kurgan N1: a glass amulet, History Museum of Armenia (photo by Mary Safaryan, 2020)



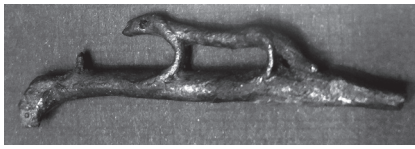
Shengavit: a snake-stone pendant-charm (photo by Vram Hakobyan, 2009)



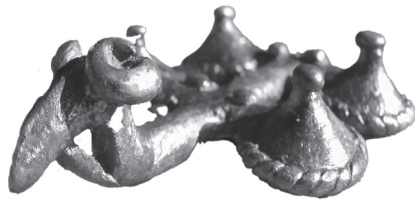
Shengavit: the torso of the marble statuette (photo by Vram Hakobyan, 2009)



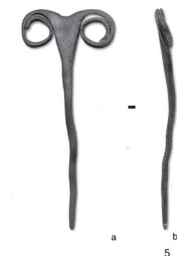
Shengavit: an obsidian pendant-charm (photo by Vram Hakobyan, 2009)



Shengavit: weasel-shaped needle–decoration (photo by Hakob Simonyan, 2023)



Pambak regional museum: a ram-headed needle– decoration (photo by Hakob Simonyan, 2005)



Jogaz, grave No. 1: a ram-headed needle–decoration (photo by Vram Hakobyan, 2009)



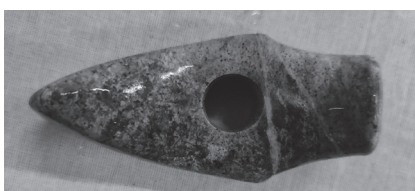
Lori-Pambak regional museum: a needle decoration with bird figurines (photo by Hakob Simonyan, 2005)



Lori-Pambak regional museum: a ram-horned styled needle–decoration (photo by Hakob Simonyan, 2005)



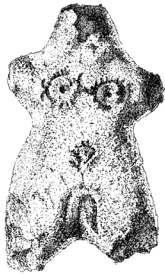
Shengavit: an ax-shaped sardion pendant-charm (photo by Hakob Simonyan, 2014)



Gorayk: Big kurgan: a serpentinite ax (photo by Hakob Simonyan, 2020)



Mokhrablur: a terracotta statuette of a woman, History Museum of Armenia



Shengavit: statuette of "Astghik", black tuff (pen drawing by Ashot Tumanyan)



Agarak: a terracotta figurine of a pregnant woman, History Museum of Armenia



Agarak: a terracotta statuette of a woman, History Museum of Armenia



Shengavit. a statuette of a woman (History Museum of Armenia)



Shengavit: a statuette of a woman (photo by Hakob Simonyan, 2005)



Shengavit: a statuette of a woman (photo by Hakob Simonyan, 2005)



Shengavit: a statuette of a woman (photo by Hakob Simonyan, 2005)



Shengavit: male figurine (photo by Hakob Simonyan, 2002)



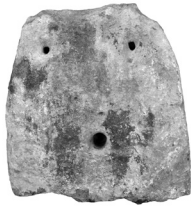
Shengavit: a terracotta statuette of a man,
History Museum of Armenia



Shengavit: male figurine (photo by Hakob Simonyan, 2002)



Shengavit: a tuff-made idol (photo by Hakob Simonyan, 2012)



Shengavit: a tuff-made idol (photo by Hakob Simonyan, 2012)



Shengavit: a tuff-made idol (photo by Hakob Simonyan, 2012)



Shengavit: a terracotta idol with a sculpture of twins (photo by Hakob Simonyan, 2002)



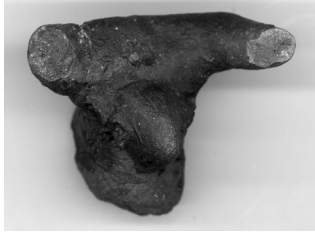
Akhaltskha: a terracotta idol with a sculpture of twins (photo by Hakob Simonyan, 2004)



Shengavit: a terracotta idol with a sculpture of twins (photo by Hakob Simonyan, 2002)



Shengavit: a terracotta figurine of a bull
(photo by Hakob Simonyan, 2010)



Shengavit: a terracotta figurine of a bull
(photo by Hakob Simonyan, 2010)



Shengavit: a terracotta figurine of a bull, History Museum of Armenia (photo by Vram Hakobyan, 2010)



Shengavit: a terracotta figurine of a bull,
(photo by Vram Hakobyan, 2010)



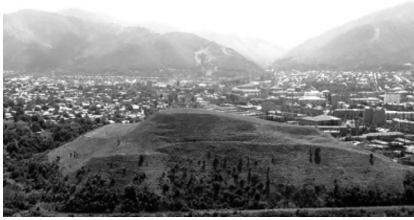
Harich: horseshoe shrine with ram protomes,
History Museum of Armenia (photo by Vram Hakobyan, 2010)



Shengavit: a terracotta figurine of a lion
(photo by Vram Hakobyan, 2010)



Mokhrablur: a statue of a bird (photo by Hakob Simonyan,
2023)



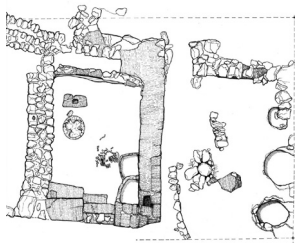
Vanadzor: general view of Tagavoranist (the king-residence) hillfort (photo by Hakob Simonyan, 2019)



Shengavit: general view of the site with Mount Ararat in the background (photo by Hakob Simonyan, 2020)



Shengavit: general view of the site showing “Hro Tachar” (Temple of Fire) (photo by Hakob Simonyan, 2012)



Shengavit: measurements of “Hro Tachar” (Temple of Fire) (architect: Hovhannes Sanamyan, 2012)



Shengavit: the altar of “Hro Tachar” (Temple of Fire) (photo by Hakob Simonyan, 2012)



Shengavit: mud brick wall (photo by Hakob Simonyan, 2012)



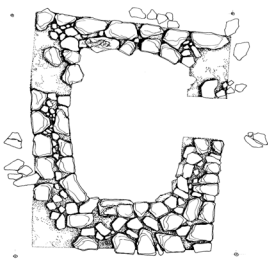
Geghahovit: general view of the Early Bronze Age tomb
(photo by Hakob Simonyan, 2002)



Gorayk: general view of the Big kurgan
(photo by Hakob Simonyan, 2020)



Gorayk: the masonry of the walls of the tomb chamber of Big kurgan (photo by Hakob Simonyan, 2020)



Joghaz: the measurement of tomb No. 1 (architect: Samvel, 1986)



Joghaz: general view of the lower layer of tomb No. 1
(photo by Hakob Simonyan, 1986)



Shengavit: the mud brick wall of a two-story room and the worship tower (photo by Hakob Simonyan, 2020)

COLOR IMAGES

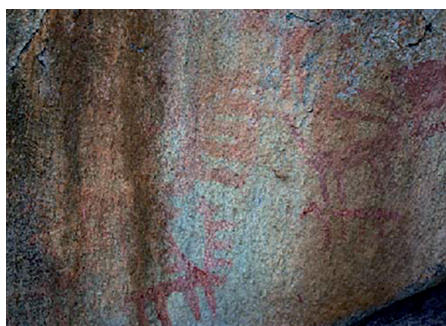


The Armenian Highlands from space (https://pikabu.ru/story/kavkaz_iz_kosmosa_dnemnochyu_4366855)

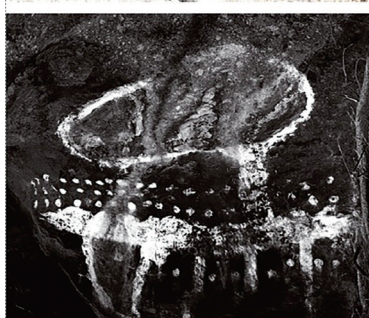
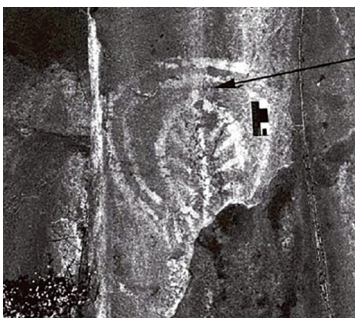
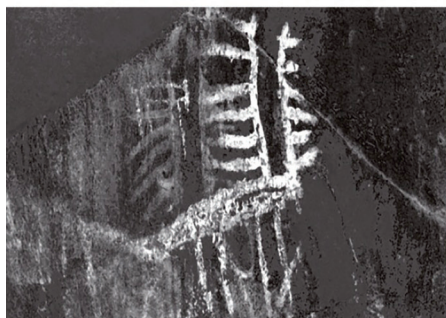
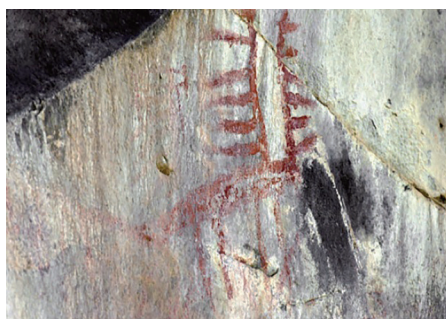
MESOLITHIC PERIOD CAVE PAINTING



Excerpts from cave paintings of "Khosrov Forest"



"Karmir qarandzav" (Red cave)



"Karmir qarandzav" (Red cave)

A cave painting of Pokaberd

A cave painting of Kakavadzor



A "grazing horse" depicted in red ochre on the wall of one of the Ani caves

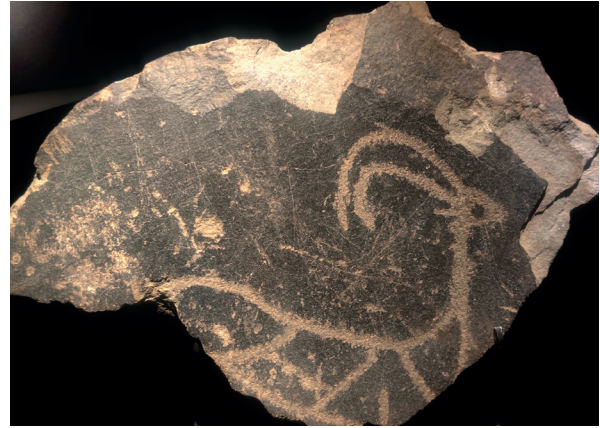
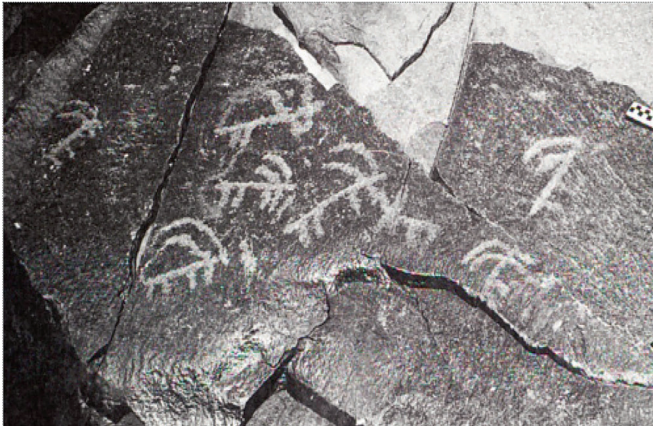


Mersin: a cave painting

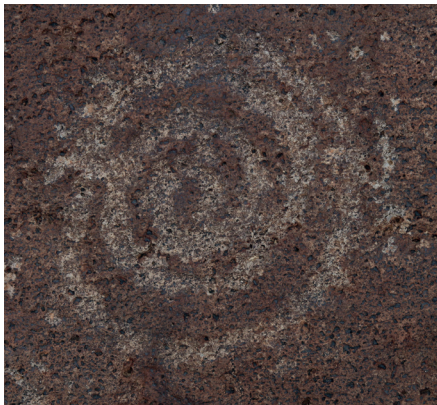
PETROGLYPHS



High mountain landscape, typical of petroglyphs



Petroglyphs on the Tirsin Plateau



Murad Sar (Murad Mount)



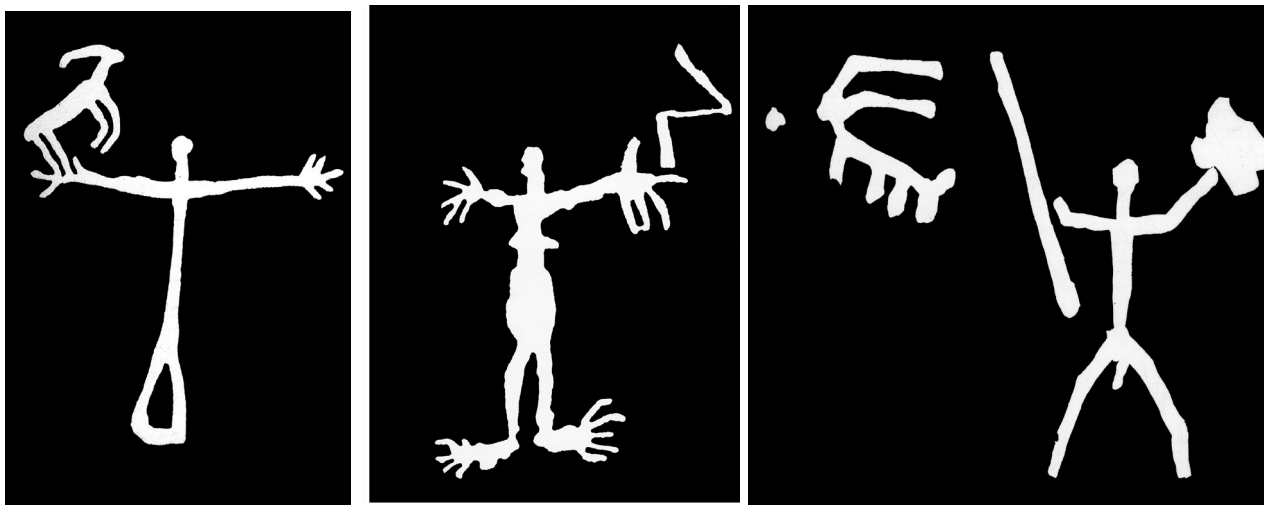
Lori-Pambak regional museum



Zar: an idol



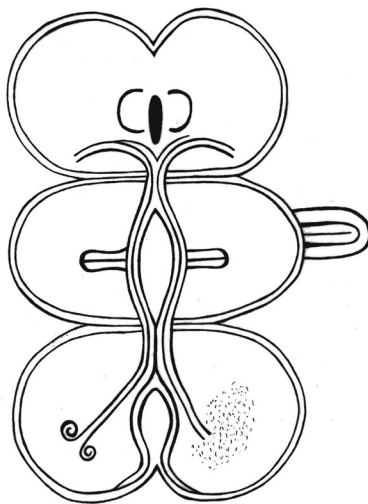
*Murad sar (Murad mount):
petroglyph of a hunter with dog*



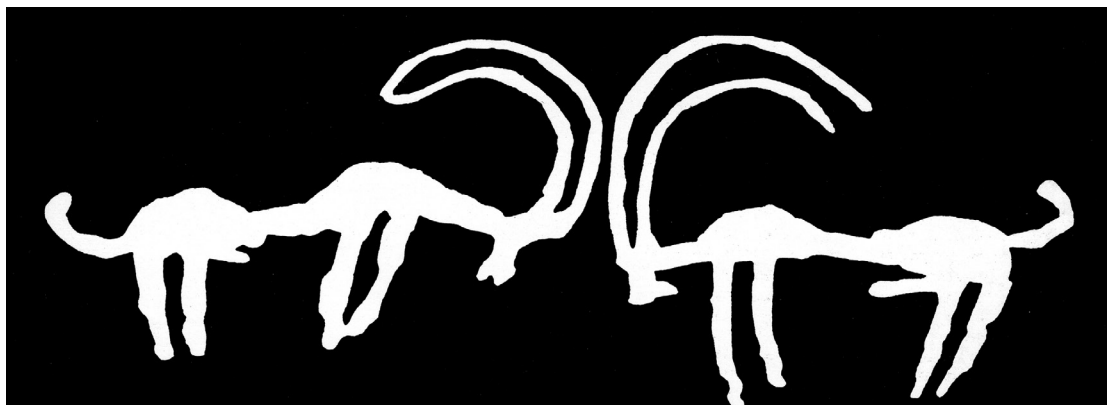
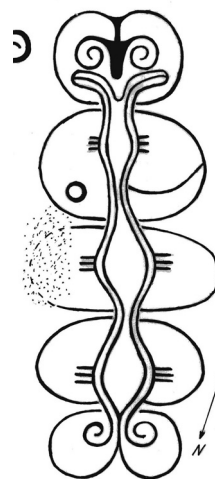
Ukhtasar: group of petroglyphs



Ukhtasar: petroglyph of heavenly goat



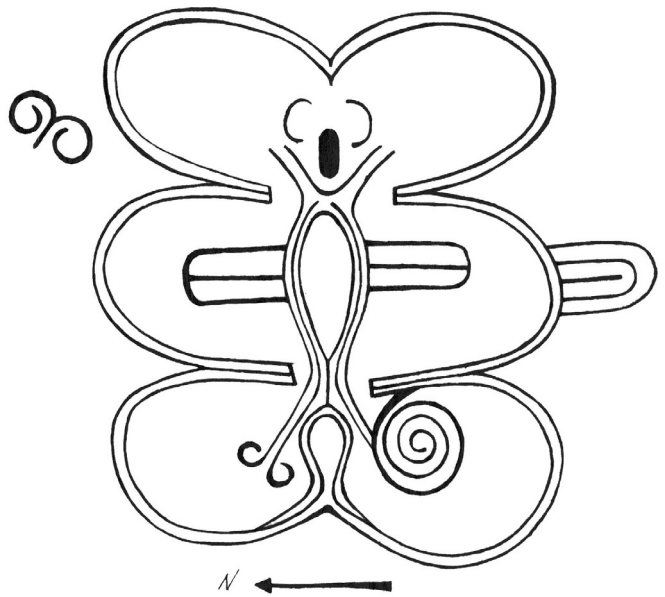
Yugharot: conception scene



Ukhtasar: petroglyph of battering rams



Tsak Sar: petroglyphs



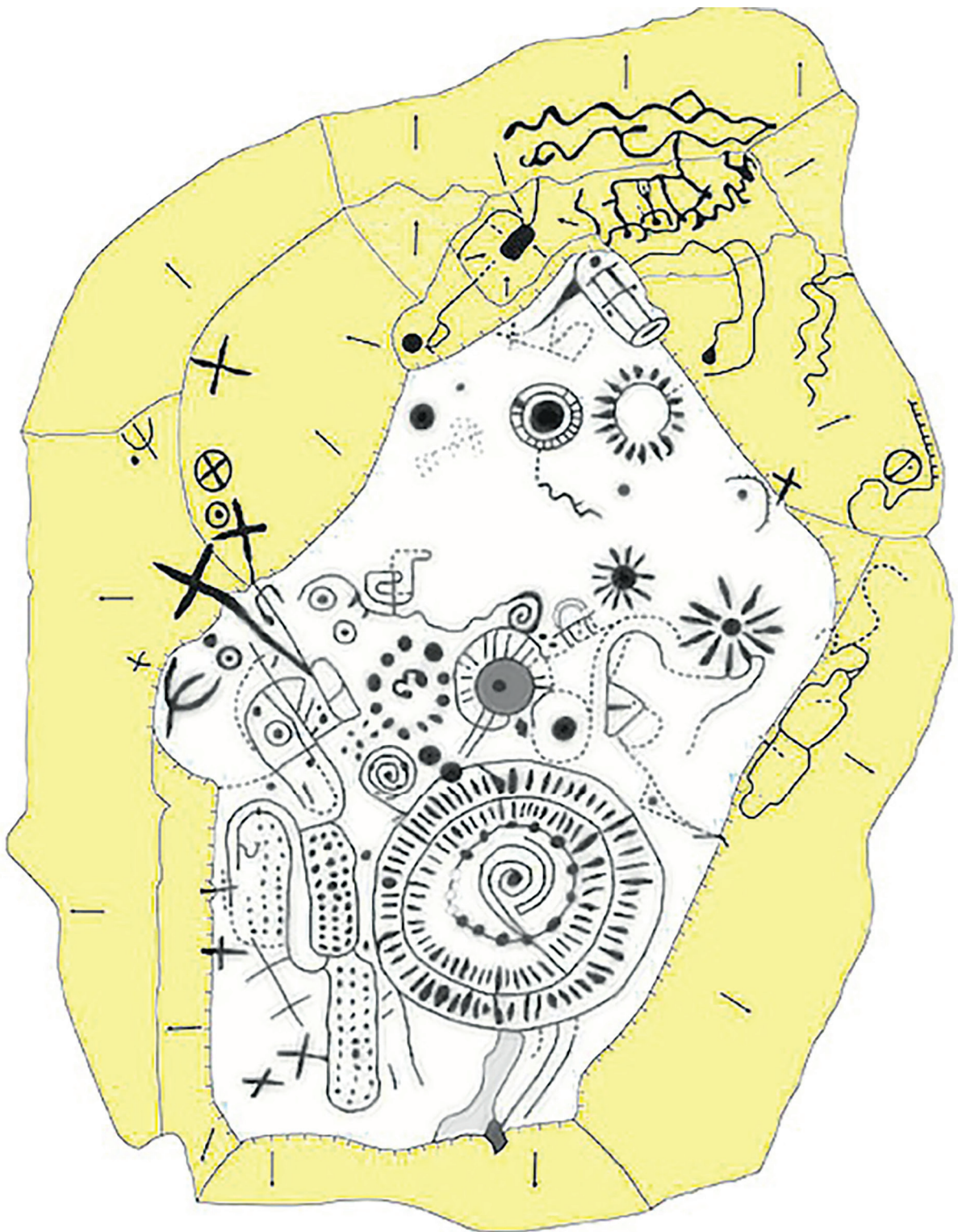
Yugharot: conception scene



Sev Sar (Black Mount): general view



Sev Sar (Black Mount): the central part of the "observatory"



Sev Sar (Black Mount): general scheme of the “observatory”



Gomshout: group of petroglyphs

GÖBEKLI TEPE CULTURE



Nevalı Çori: portraits

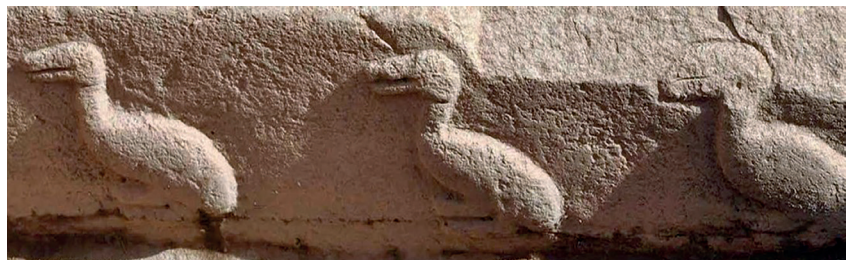
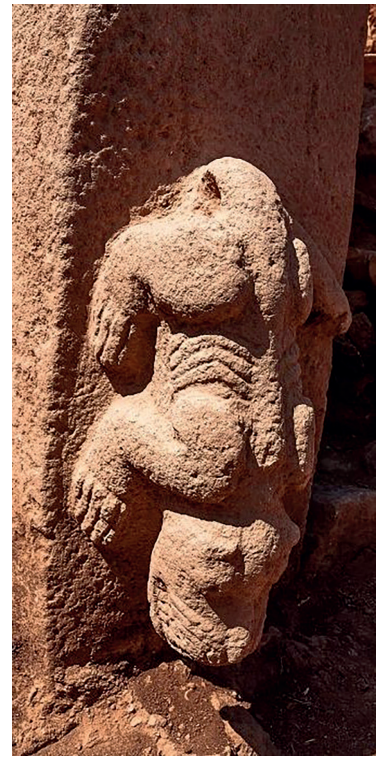
<https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsli-tid=AfmBOopidhgf4eWXMS4f0IQSpss2rroe2nE7PHZWryvua78SjzidtBpz>



Sayburç: reliefs



Karahantepe: statuette



Göbekli Tepe: relief depicting birds in procession

<https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srsltid=AfmBOopidhgf4eWXMS-4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>



Göbekli Tepe: relief depicting birds in procession

<https://his.ua/article/gebekli-tepe-samoe-staroe-i-samoe-zagadochnoe-sooruzhenie-v-mire-2017-07-14?srlti-d=AfmBOopidhgf4eWXMS4f0lQSpss2rroe2nE7PHZWryvua78SjzidtBpz>

NEOLITH STATUETTES



Çayönü Tepesi: figurines

ARCHITECTURE



Çayönü Tepesi



Çayönü Tepesi



Masis Blur: clay buildings



Aratashen: clay buildings

CHALCOLITH APPLIED ART



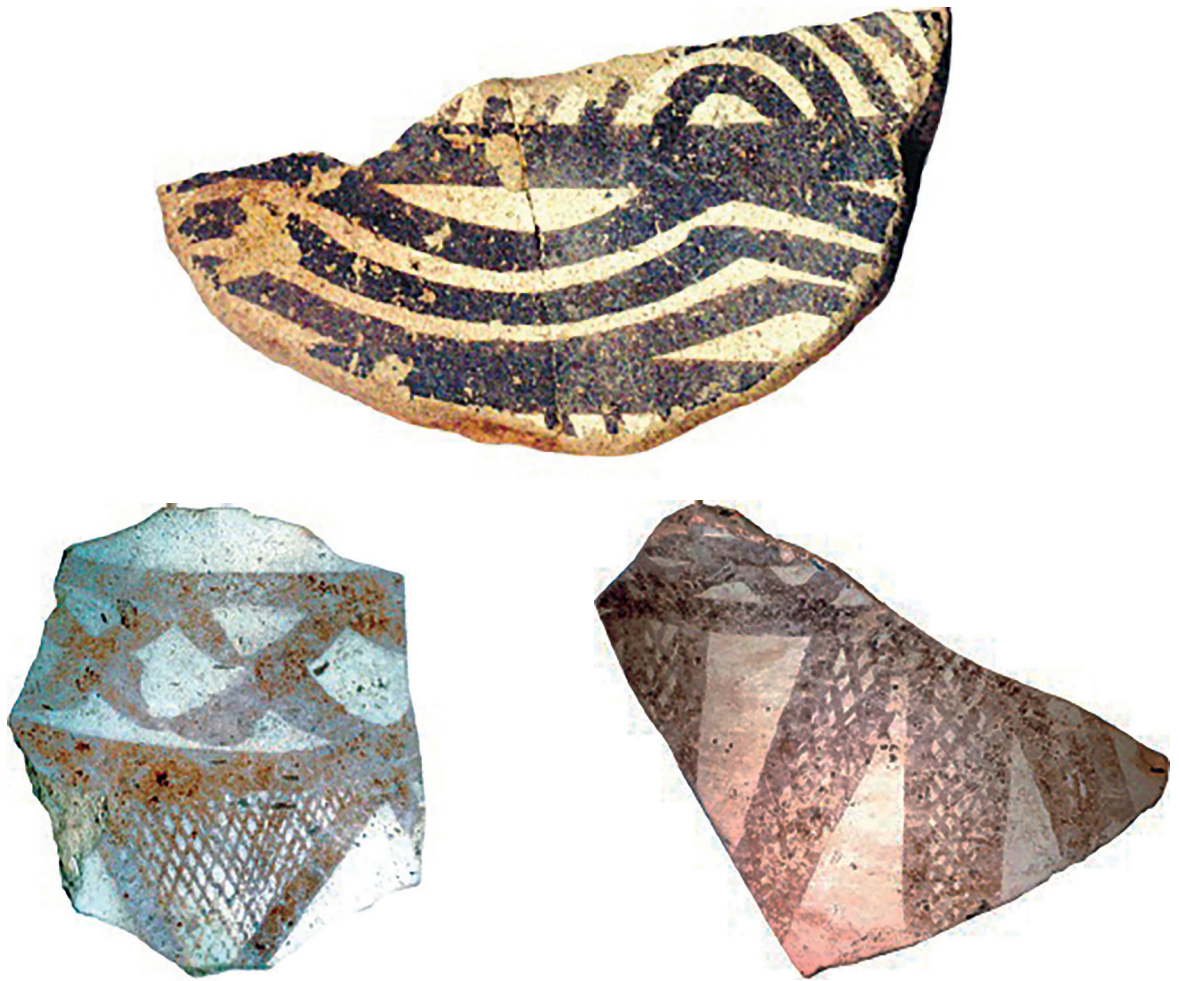
Areni: wine-making complex



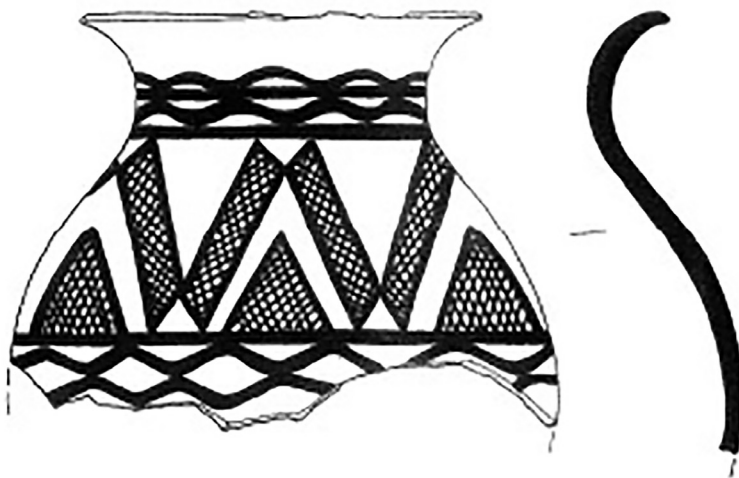
Areni: wine-making complex



Nakhichevan: Halafian-type painted jug



Nerkin Godedzor: a fragment of a painted vessel

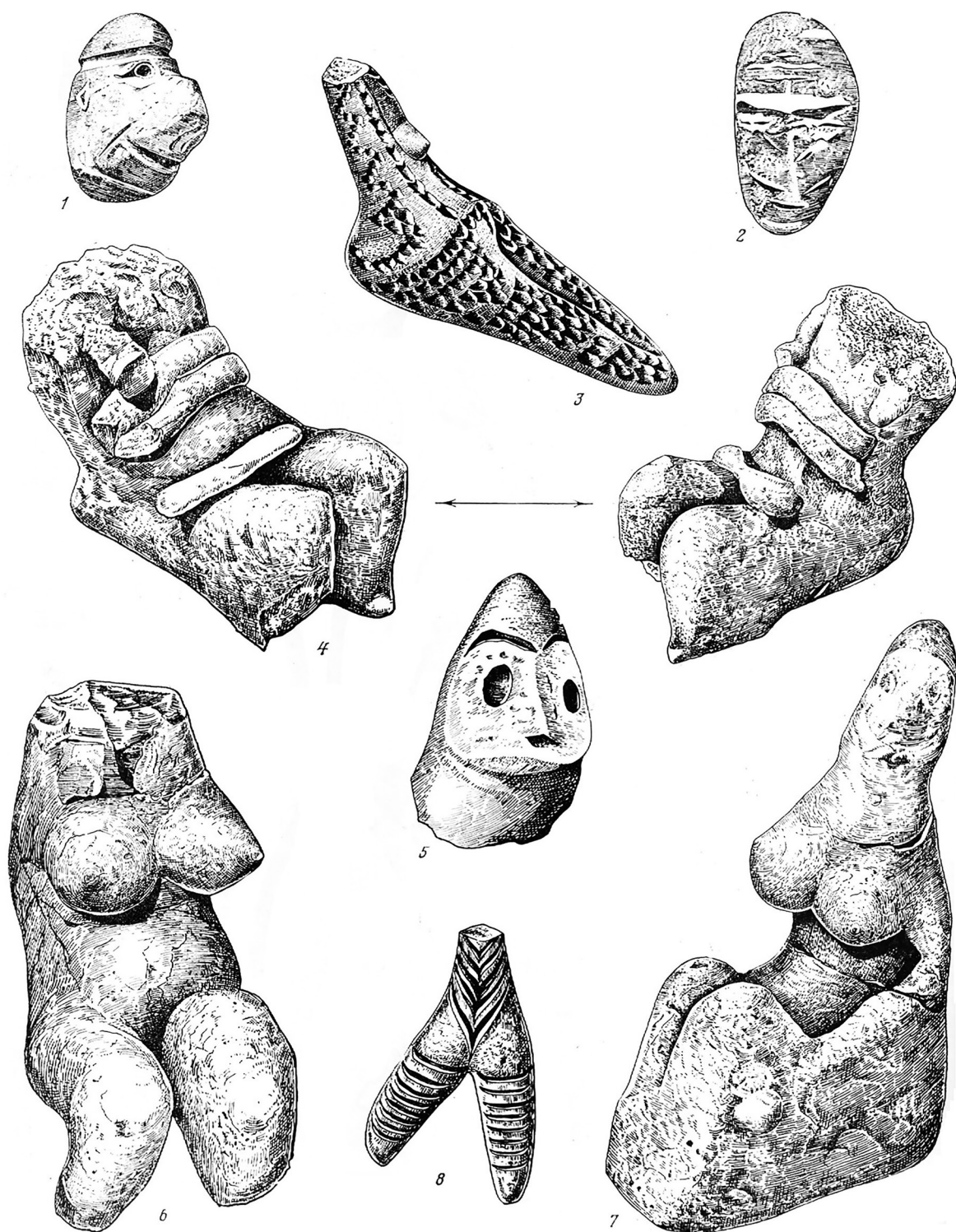


Nerkin Godedzor: a pen drawing of a painted vessel

ARMENIAN HIGHLAND AND THE PORTASARYAN CULTURE AREA







Kura river basin: clay figurines from the sites of Arukhlo, Shulaveris-gora, Imiris-gora, Khramis Didi-gora

EARLY BRONZE AGE APPLIED ART



*Shengavit: a black polished clay bowl
from tomb No. 11*



*Shengavit: a painted clay bowl with
the image of storks fighting with
snakes*



Shengavit: a black polished cup



*Shengavit: a black polished crucible
(storing-pot)*



Vessels of Shengavitian culture



Clay vessels of Shengavitian culture



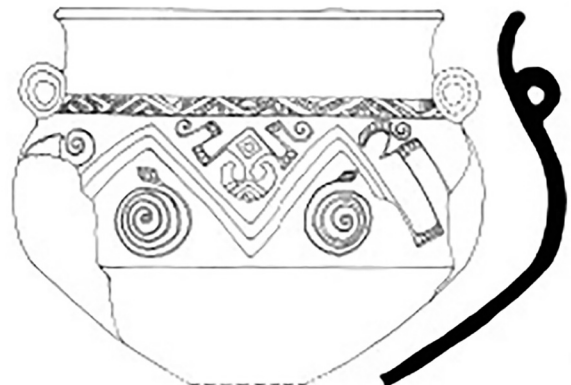
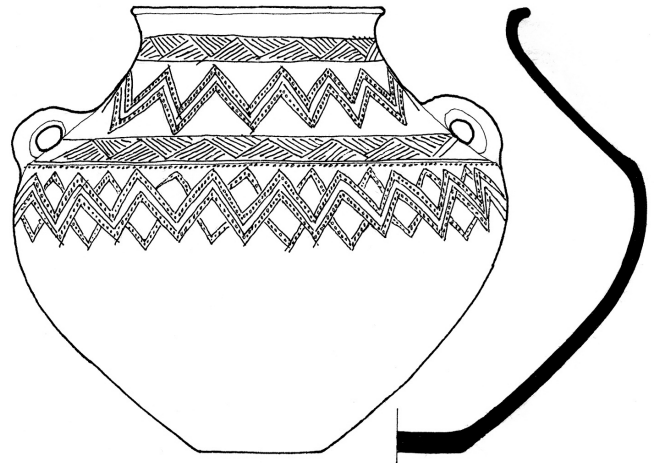
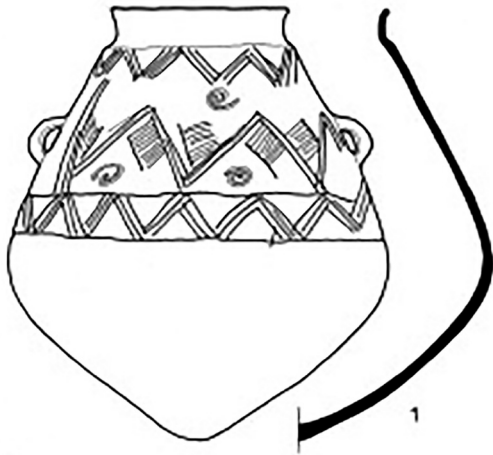
Kosi Choter: fragment of a vessel, Lori-Pambak Regional Museum of Vanadzor



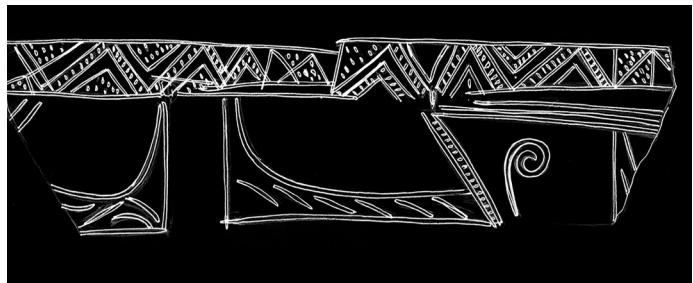
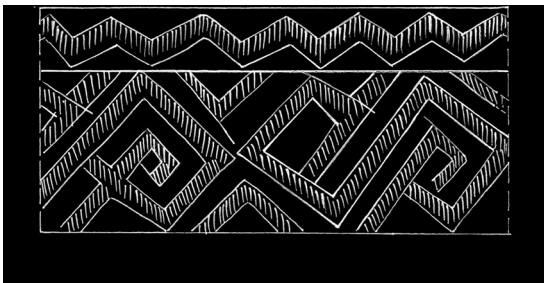
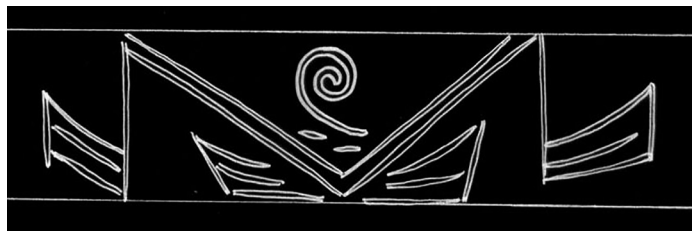
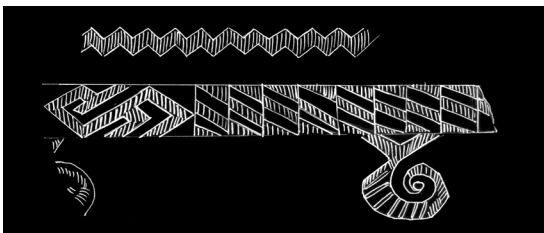
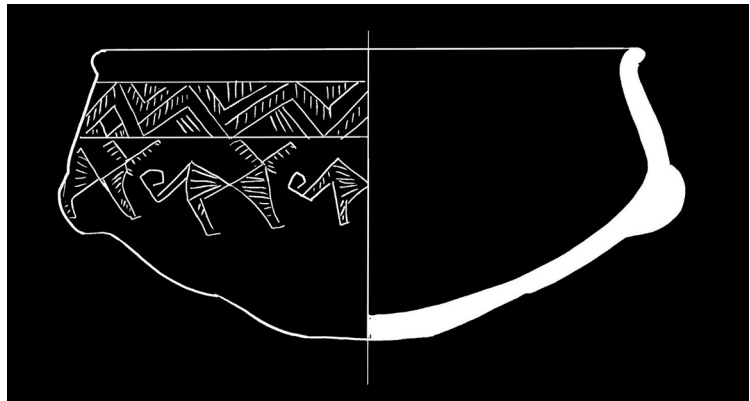
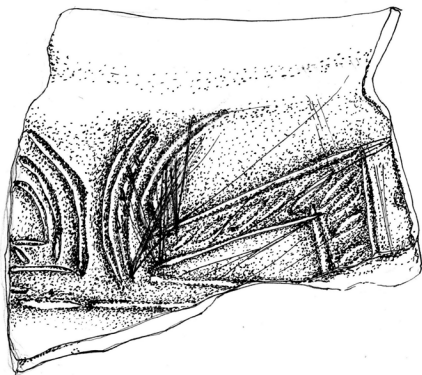
Shengavit: a black polished crucible



Lori-Pambak Regional Museum of Vanadzor: a black polished vessel



Joghaz: black polished ornamental pottery from the tombs, Lori-Pambak Regional Museum of Vanadzor



Shengavit: black polished pottery with incised geometric decoration

GOLD ART



Shengavit: tomb No.1



Shengavit: tomb No.1



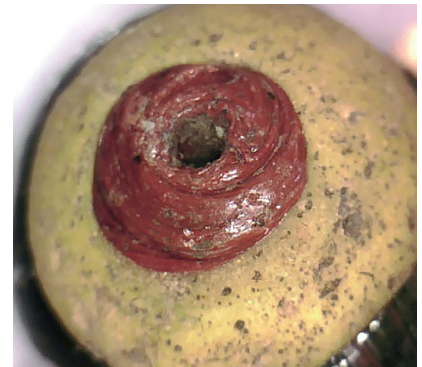
Gorayk, Big Kurgan: a gold earring



Shengavit, tomb No.2: a gold ring



Shengavit: a red jasper amulet with a black eye



Gorayk, Big Kurgan: a glass amulet



Shengavit: a snake-stone pendant-charm



Shengavit: the torso of the marble statuette



Shengavit: an obsidian pendant-charm

ARTISTIC METALWORK



Shengavit: weasel-shaped decorative needle



Joghaz, grave No. 1: a ram-headed decorative needle



Lori-Pambak Regional Museum of Vanadzor, ram-headed decorative needles



FEMALE FIGURINES



Mokhrablur: statuette of a woman



Shengavit: statuette of "Astghik", black tuff



Agarak: a pregnant woman



Agarak: statuette of a woman



Shengavit: statuette of a woman



Shengavit: statuettes of women

MALE FIGURINES



Shengavit: male figurines

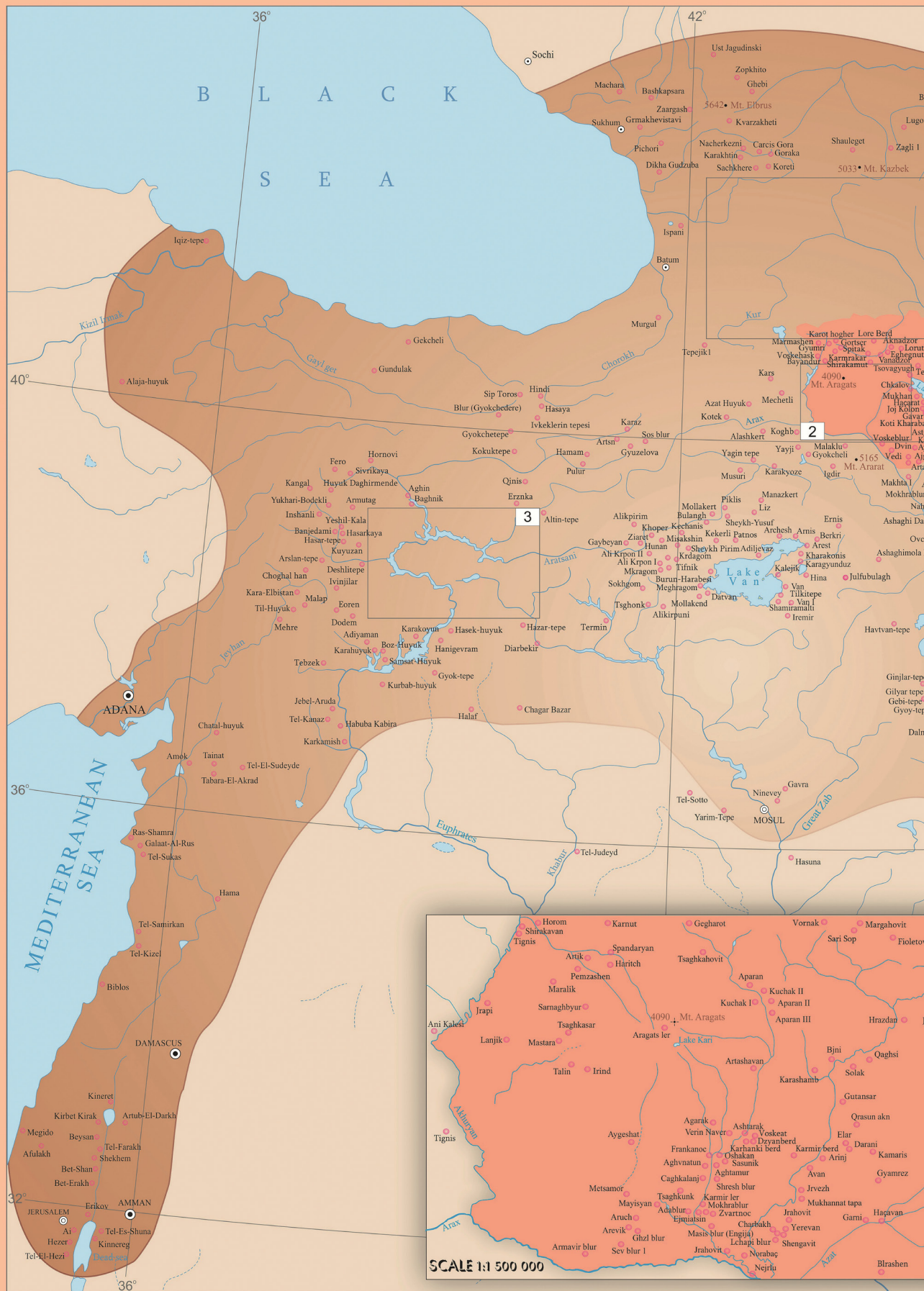
IDOLS

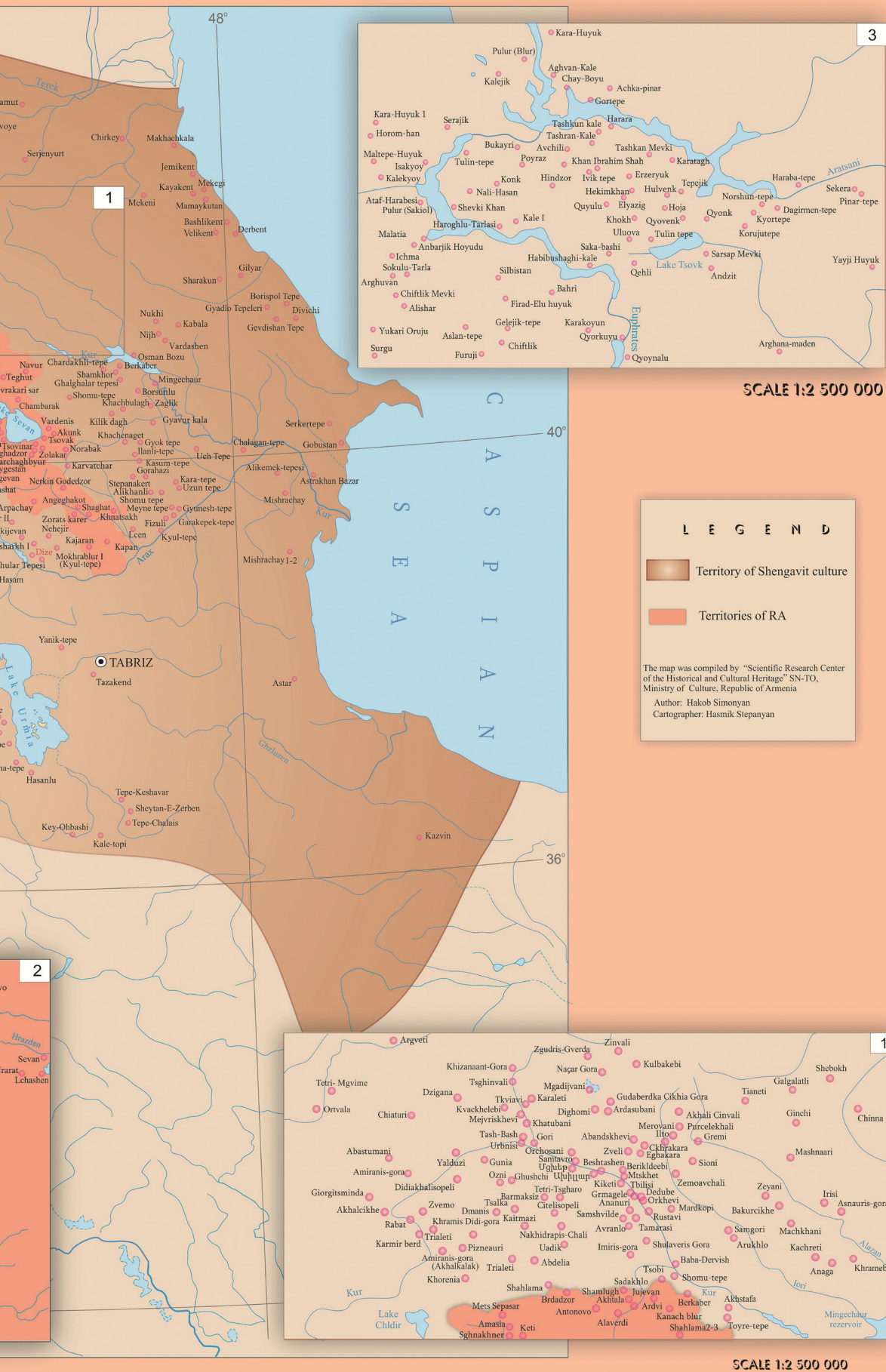


Shengavit: a tuff-made idol



Akhaltskha: a terracotta twin idol





ANIMAL FIGURINES



Shengavit: terracotta figurines of bulls



Shengavit: a terracotta figurine of a ram

Harich: a portable horseshoe-shaped shrine with sculptures of rams



Shengavit: a terracotta figurine of a lion

Mokhrablur: a statue of a bird

ARCHITECTURE



Vanadzor: general view of Tagavoranist (the king's residence) hillfort



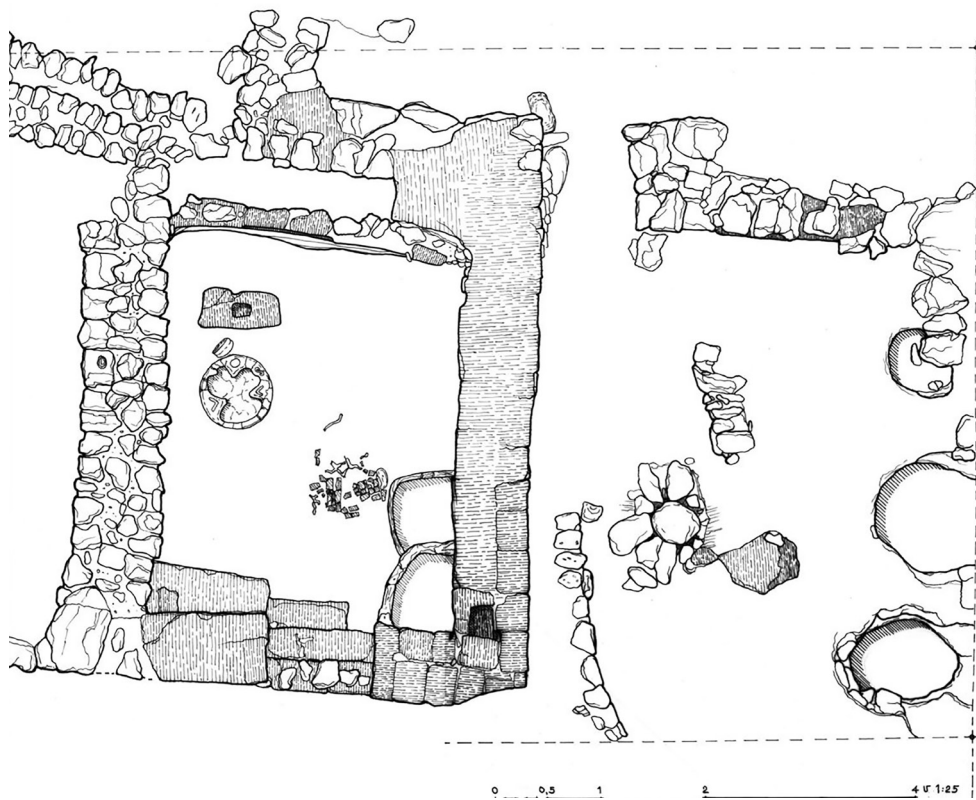
Shengavit: general view of the site with Mount Ararat in the background



Shengavit: general view of the site with architectural remains of a rectangular room and the altar of "Hro Tachar"(Temple of Fire)



Shengavit: close view of the altar of "Hro Tachar"(Temple of Fire)



Shengavit: architectural plan of “Hro Tachar”(Temple of Fire)



Geghahovit: general view of the Early Bronze Age tomb

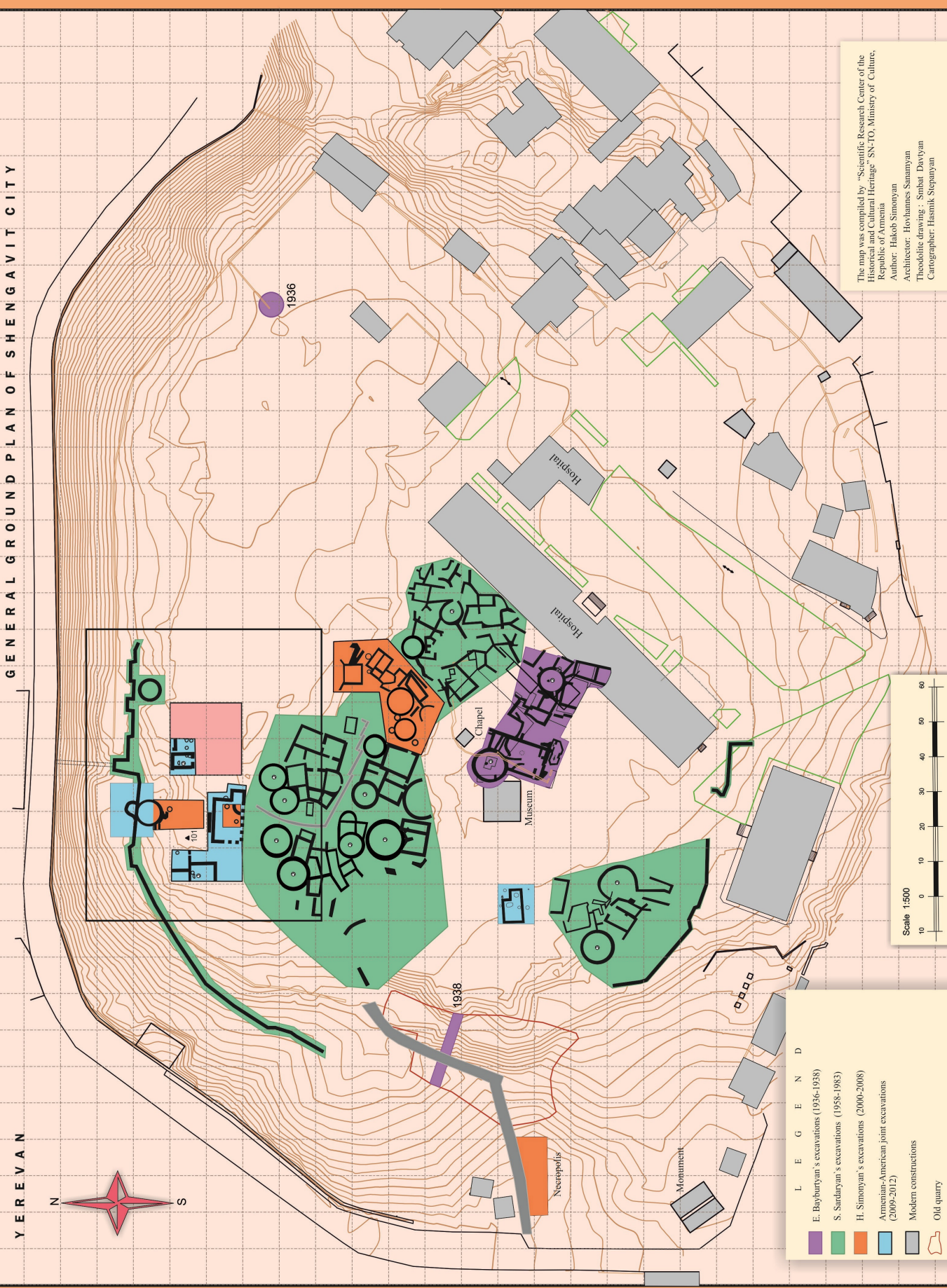


Shengavit: mud brick wall

-B -A A B C D E F G H I J K L M N O P Q R S T U V W X Y Z A' B' C' D'

YEREVAN

GENERAL GROUND PLAN OF SHENGAVIT CITY



- E. Bayburtian's excavations (1936-1938)
- S. Sardaryan's excavations (1958-1983)
- H. Simonyan's excavations (2000-2008)
- Armenian-American joint excavations (2009-2012)
- Modern constructions
- Old quarry
- Area for intended excavation

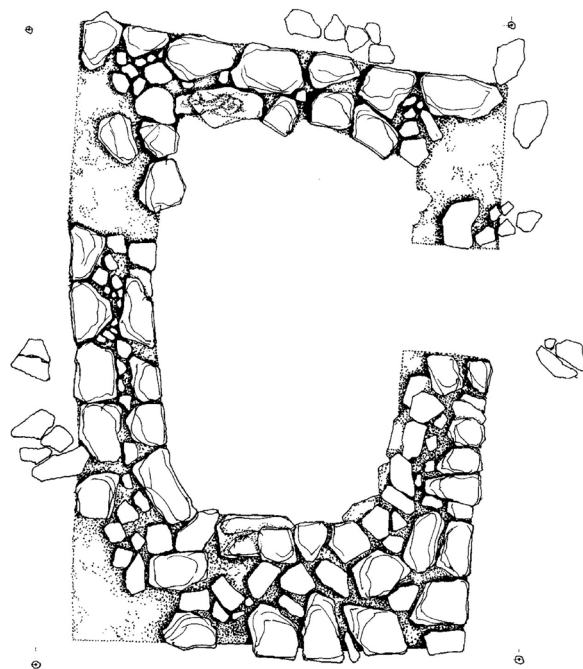
The map was compiled by "Scientific Research Center of the Historical and Cultural Heritage" SN-TO, Ministry of Culture, Republic of Armenia
 Author: Hakob Simonyan
 Architector: Hovhannes Samanyan
 Theodolite drawing: Snibat Davtyan
 Cartographer: Hasmik Stepanyan



Gorayk: general view of the Big Kurgan



Gorayk, Big Kurgan: masonry of the tomb chamber walls



Joghaz: architectural plan of tomb No.1



Joghaz: general view of the lower layer of tomb No.1



Shengavit: mud brick wall of a two-story room and the worship tower

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ABBREVIATIONS AND ACRONYMS

BCE – Before Common Era

CE – Common Era

HAP – Hnagyun Arevelkhi Patmuthyun – The History of the Ancient Orient

HChP – Hay Chartarapetuthyan Patmuthyun – The History of Armenian Architecture

HČP – Hay Chartarapetuthyan Patmuthyun – The History of Armenian Architecture

HŽP – Hay Zhoghovurdi Patmuthyun – The History of Armenian People

HZhP – Hay Zhoghovurdi Patmuthyun – The History of Armenian People

et al (et alii) – and others

HAKOB YERVAND SIMONYAN

THE PRIMEVAL ART OF THE

ARMENIAN HIGHLANDS

(12TH MILLENNIUM – FIRST HALF OF THE 3RD MILLENNIUM BCE)

Translation:

Tigran Martirosyan

Translation Editor:

Saak Tarontsi

Typesetters:

Astghik Vardanyan

Hasmik Stepanyan

Size: 70×100, 1/8

Volume: 44 printed sheets

Including: a 7-printed-sheet colored chalk-coated insert

Paper and printing: offset printing

«Ersar Print» Publishing house

Hakob Yervand Simonyan

Honored Art Worker of the Republic of Armenia; Ph.D. of Historical Sciences; Doctor of Art History; Professor. He served as the Founding Director of the "Scientific Research Center of Historical and Cultural Heritage" SNCO of the Ministry of Education, Science, Culture and Sports of the Republic of Armenia (1993–2014), and is currently (2014–present) the Head of its Department of Archaeological Research.



1968–1973 - He studied at the Department of Archaeology, Faculty of History, Yerevan State University.

1979–1983 - He pursued postgraduate studies at the Institute of Archaeology of the USSR Academy of Sciences in Leningrad.

He is the author of nearly 300 scientific articles, maps, and books, with an H-index of 8. He has participated in numerous international conferences across Europe, Asia, the United States, and in nearly all the former Soviet republics. He has directed archaeological excavations at the Mausoleum of the Armenian Kings in Aghtsk, the Tsitsernavank monastic complex, the Shengavit settlement, the Lori fortress-city, the Karmir Blur necropolis, and at dozens of other significant heritage sites. He serves as Editor-in-Chief of the *Hushardzan* (Monument) annual and the *Historical and Cultural Heritage* monograph series. He is also a member of the editorial boards of the *Yearbook of Academy of Fine Arts* and *Region and World* academic journals of the Academy of Fine Arts of Armenia, as well as the newspaper *Voice of the Fatherland*.

His research interests include the history of the Armenian people, archaeology, epigraphy, and the history of architecture and art.

He has been awarded the Garegin Nzhdeh Medal, as well as gold medals from the State Committee of Science of the Republic of Armenia, the Ministry of Culture of the Republic of Armenia, and the Prime Minister of the Nagorno-Karabakh Republic.

By Presidential Decree No. NH-224-A of 3 September 2011, he was conferred the honorary title of Honored Worker of Culture of the Republic of Armenia.

Contact information

Tel.: +374 77 007 009,

Email: haksimon@gmail.com

ISBN 978-9939-9087-5-5



9 789939 908755