

Reimagining Urban Origins: Social and Religious Landscapes at Bāb edh-Dhrā' in the Early Bronze Age Southern Levant

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Abstract:

The archaeological site of Bāb edh-Dhrā', situated southeast of the Dead Sea, is one of the largest archaeological sites in southern Jordan and is dated to the Early Bronze Age (3300-2000 BC). It was a special city reflecting the unity of social and religious organization and the architectural and spatial structure. Its purpose is to offer an analytical analysis of the social, religious, and urban institutions at Bāb edh-Dhrā', drawing on the evidence from archaeological excavations, archaeological and funerary artifacts, architectural monuments, funerary practices, settlement systems, environmental surveys, and regional significance. It is also concerned with the design of the city: walls and fortifications; planning; the communal use of buildings; and the degree to which they project a central political authority and a single social system.

The study focuses on the religious structure of these communities, which could be reconstructed from analysis of the elaborate funerary rituals at the unique mass graves at the Bāb edh-Dhrā' cemetery, counting thousands of burials in large stone mass graves, which is showing evidence for a complex system of beliefs and mass worship rituals connected with death. The evidence demonstrates that Bāb edh-Dhrā' was not just an agricultural village, but an urban and a religious center which is suggestive of an even more complicated human society and religious beliefs in earlier days of urban history in the southern Levant.

Keywords: Southern Levant, Jordan, Bāb edh-Dhrā', Early Bronze Age, Social and Religious Organization, Funerary Rituals.

Received: 01/07/2025

Accepted: 22/08/2025

Available online: 30/09/2025

Introduction

The analysis of the Early Bronze Age sites in southern Ghor, in the Jordan Valley, actually assist us in understanding the way early towns and communities began to develop together, particularly the way they lived socially, religiously and economically (Dever, 1990; Levy, 1995). Bāb edh-Dhrā' is one of such sites that have not only a large size but also unbelievable mass burials. The burials make certain funeral rituals and practices to be easy that we had not experienced previously. A good example of how the ancient people used to socialize with nature was Bāb edh-Dhrā', which gave us so much knowledge about the ancient beliefs and civilization of ancient civilizations, through the construction of citadels, complex burial systems, etc (Schaub and Rast, 1989). This paper will examine the history and site of the location, the past excavations, and discuss the various layers of the monuments found. It explores also the urban structure, pottery, metals and metal instruments, mass graves and funeral traditions and attempts to interpret what is revealed by these archaeological relics (Schaub, 1985; Doubleday et al., 2002). In addition, it also focuses on the significance of the site in ancient trade routes, based on what was discovered in excavations and the role of environmental factors. The paper explains the social and cultural implications of these findings, the reasons there are so many tombs at Bāb edh-Dhrā' and how they relate to bible tales on Sodom. It concludes with an overview of the research possibilities in the future, describing excavations during the first half of the twentieth century (Albright, 1924; Lapp, 1966, 1968, 1989; Rast and Schaub, 2003). These excavations showed big site with great walls, advanced city planning, and a big cemetery which provided great details about funerary and the social life of the early inhabitants in the Jordan Valley.

1. Methodology

This study is based on a wide, analytical and descriptive approach and is presented by summarizing an extensive literature review of the past academic works and past archaeological researches that are relevant to the location of Bāb edh-Dhrā' that were included in the broader context of the Early Bronze Age in the Southern Levant. The primary and secondary source materials were collected as different primary and secondary data sources like official field reports on the archaeological excavations, peer-reviewed scientific articles published in specialized journals, and authoritative texts on archaeology. The purpose of creating space in this analytical model is to have a profound insight into the site-specific social, religious, and urban phenomenon. It is by microscopic analysis of rediscovered artifacts, buildings, burial customs and settlement arrangements. In addition to that, much focus has been placed on the interpretation of the archeological information in a large historical and cultural context and paying close attention to the environmental and economic conditions

that could have contributed to the flow of the development in the site. This approach, thus, introduces a comprehensive and holistic perspective of the significance of Bāb edh-Dhrā' as an important city and a religious hub in the Early Bronze Age.

2. Bāb edh-Dhrā': Geographical and Historical Location

Bāb edh-Dhrā' is located on the eastern edge of the Jordan Valley, southeast of the Dead Sea, in an area called the Tongue, specifically about 14 kilometers southwest of the city of Karak, between longitude 31.2538374° N and latitude 35.5341974° E, at an altitude of approximately 350 meters below sea level (fig.1.) (Schaub, 1982; Schaub & Rast, 1989). The site covers around ten hectares, which is one hundred dunums, and it is well-positioned near Wadi al-Mujib and Wadi al-Hasa. This makes it an important spot along the old trade routes (Schaub, 1982). The valley also commands rich agricultural areas where Wadi al-Mujib and Wadi al-Hasa converge, and it has access to permanent water flows and natural flood defenses (Rast 1987).

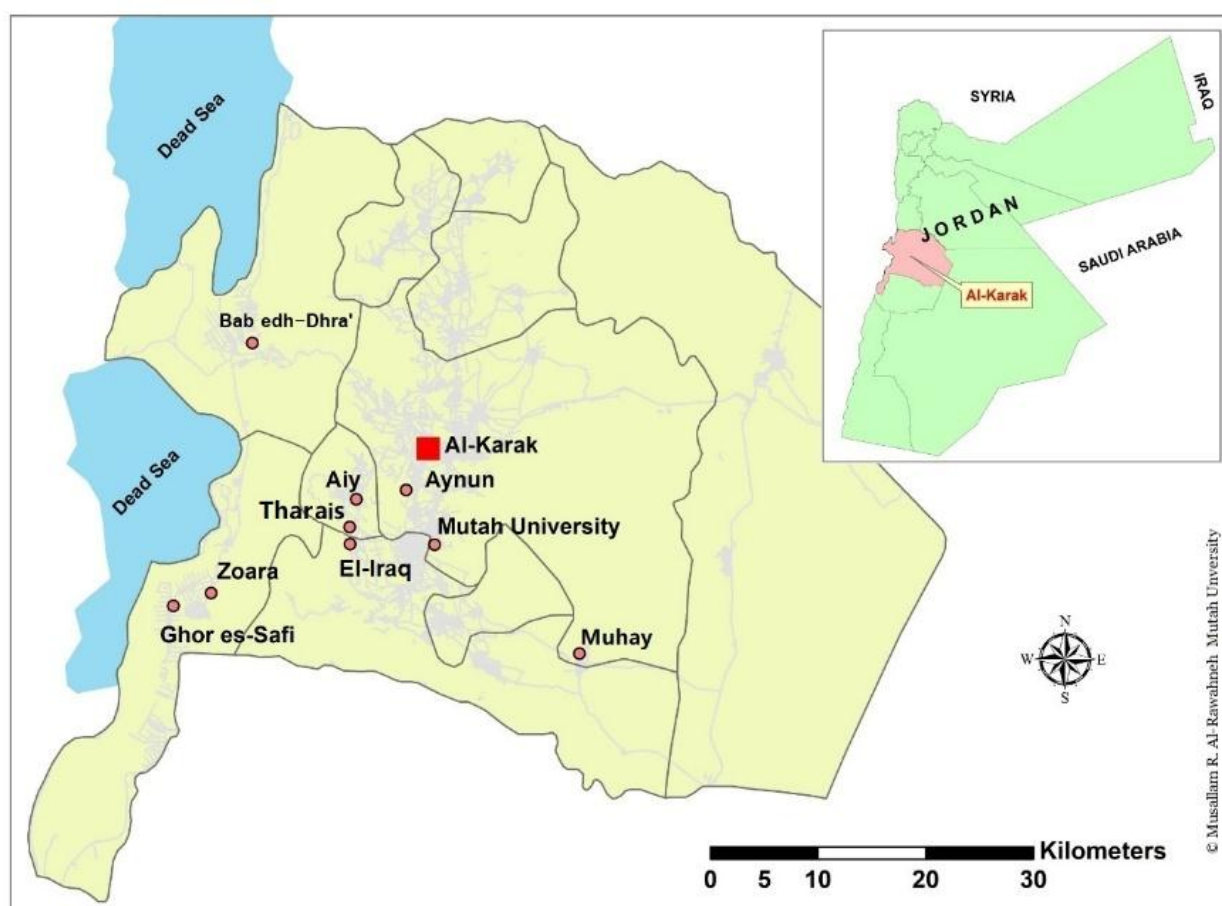


Fig.1. Map of the Karak Governorate showing the site of Bāb edh-Dhrā' (© Al-Rawahneh. M)

The Bāb edh-Dhrā' settlement sites have a settlement record that dates to the late 4th millennium BC, with the earliest occupation [layers] dating to EB I (ca. 3300-2900 BC) and occupation continuing until the end of EB III (ca. 2300 BC) before there was a conspicuous collapse for environmental and social

reasons (Schaub & Rast, 1979; Rast & Schaub, 2003). The importance of the geographical location indicates that it is a strategic center for controlling the ancient trade routes that linked the Hijaz areas to the south with the regions of Jordan, Palestine, and Syria to the north, and its fertile environment made it a center for agricultural and pastoral settlement (Richard, 1993).

3. A Brief History of Archaeological Research

The first archeological reconnaissance and excavation works in the Bāb edh-Dhrāʿ were undertaken in 1924 by the American school of Oriental research in Jerusalem. These initial activities were conducted on small-scale excavations under the guidance of William Albright. Bāb edh-Dhrāʿ was one of the first archaeological locations to be excavated in the Transjordan and with an initial aim to determine a connection between the location and the biblical city of Sodom, as depicted, in the Book of Genesis, (Chapters 18-19) (Albright, 1924). This venture would later come to an end after a few decades, only to be revived in the 1960s under the scrutiny of archaeologist Paul Lapp who led a renewed introduction of systematic excavations in the area in 1965, a joint venture between the Department of Antiquities and the American School of Oriental Research. Lapp mainly focused on the large cemetery with thousands of tombs and the fortified urban settlement with its mighty walls. After three years, his work came to an end (Lapp, 1966; 1968; 1989). After the works of Lapp, combined archeological digs involving American universities and a Jordanian team, led by William Schaub and R. Thomas Schaub, conducted further research throughout the 1970s and 1980s (Rast & Schaub, 1974; 1976a; 1976b; 1989; Schaub & Rast, 2003). These later excavations first aimed at the discovery of the huge eastern cemetery, with thousands of collective and individual graves, and the discovery of large areas of the walled city. Subsequent phases of excavation were also directed towards the investigation of settlement layers within the city with the resultant uncovering of elaborate system of fortification infrastructure, residential buildings, and the infrastructure underlying the city (Schaub & Rast, 1989). Moreover, the activity reflected not only the urbanization but also a more general cultural background of Bāb edh-Dhrāʿ and the related locations (Schaub & Rast, 1979). Unlike other excavations of their time, they were characterized by a modern methodology in their excavations incorporating stratigraphic documentation and chemical analyses of materials. Current modern tools like aerial photography and remote sensing were also used to produce accurate maps of the site (Quintero, Wilke, & Schaub, 2002). William Dever is very critical of the archaeological trends prevailing today, especially at Bāb edh-Dhrāʿ, and with the coming to light of recently recovered artifacts (Dever, 1990). Overall, Bāb edh-Dhrāʿ was quickly established as one of the major Ancient Near Eastern sites through these excavations, and fiery discussion within the academy about the emergence of early cities and

socioreligious conditions of the Early Bronze Age has been sparked with this finding. (Rast & Schaub, 2003).

4. Stratigraphic Analysis of the Site: The Early Bronze Age

Bāb edh-Dhrāʿ exhibits a distinctive archaeological record with stratigraphic layers mapping the site-developmental history in the Early Bronze Age. These layers actually testified to each and every step of evolution, beginning with the creation of different structures up to the fortification. The location had been experiencing strong transformation of settlement pattern and land-use during the years. The strata show different styles of pottery and transformations in sequestered, burial customs (Schaub, 1985). Archaeological digs at Bāb edh-Dhrāʿ have therefore demonstrated a highly complicated chronology of archeological stratification depicting the formation of the human settlement in four significant stages of the Early Bronze Age (Rast and Schaub 2003). The stages of the earlier one, the older one being:

Early Bronze I (EB I): During this, the first phase was associated with the founding of human settlements with rudimentary agricultural and pastoral subsistence strategies. During the construction of this settlement, inhabitants set up very simple structures and developed small-scale burial sites on which they executed both individual and collective interments (Schaub and Rast 1989).

Early Bronze II (EB II): The second phase was characterized by a rapid rise in population and the building of the first defensive walling around the settlement. The walls were solidly embedded with mudbrick (according to Rast & Schaub 2003).

Early Bronze Age III (EB III): This phase extended to the height of Bāb edh-Dhrāʿ settlement, which saw the construction of monumental walls and a more organized form of planning. Such an apparent rise in large-scale burials must signify a wealthy and highly organized society (Schaub & Rast, 1989).

Early Bronze Age IV (EB IV): The last phase saw signs of decline, which included a decreasing settlement area and destruction in damage to walls and buildings. These were perhaps due to environmental changes or regional conflicts (Richard, 1993).

The interpretation of these stratigraphic layers can offer very essential information for the continuous evolution of social and technological organization over time at Bāb edh-Dhrāʿ, thereby allowing a full reconstruction of daily life and burial practices for distinct periods (table no. 1) (Rast, 1987; Dever, 1990).

5. Structure and Urban Planning

Bāb edh-Dhrāʿ stood out because of how its city was laid out. Archaeologists have found evidence showing it was a fortified city with advanced planning for its time, especially compared to other places

from the early Bronze Age. It was surrounded by a big defensive wall made of mud bricks, complete with towers and gates to protect it (Schaub, 1982).

Table No. 1: Summary of the development Phases of Bāb edh-Dhrā‘ during the Early Bronze Age

EBA Relay	Approximate period	Characteristics of Settlement	Architecture and Fortifications	Cemeteries and funerary rituals	Civilized Notes
First Phase (EBI)	3300-3000 BC	Primary agricultural settlement, small gatherings	Simple mud and stone buildings	Limited individual and mass graves	Beginning of Permanent Stability
Second Phase (BII)	3000-2700 BC	Population growth, urbanization	Construction of initial fences around the site	Increase in the number and diversity of cemeteries	Emergence of a primary central authority
Third Phase (EBII)	2700-2300 BC	The Peak of Urban Prosperity	Huge walls, towers, and fortified gates	Huge mass grave, complex funerary ritual	Evolution of social organization
Fourth Phase (EBIV)	2300 BC- and beyond	Significant population decline	Partial destruction of walls and buildings	Decrease in the number of cemeteries	Environmental and social changes

Inside, there were homes, grain storage, and industrial locations, all of which foreshadowed the existence of a central power as well as a highly structured urban structure at the time (Rast and Schaub, 2003; Schaub and Rast, 1979). The city was built in a certain way which had several important features:

Walls and Fortifications: The city was totally protected by this massive mud brick wall, about 4 to 5 meters thick, sometimes even reaching up to seven meters tall (Rast & Schaub, 2003).

Layout: Internally, the city was orderly: there were residential areas, storage zones and industrial zones. There were remains of multi-room houses, granaries, oil presses and workshops where they could make stone and pottery tools (Schaub, 1985; Schaub and Rast, 1989).

Infrastructure: Like on water, they had a brilliant system on how to manage their water, namely stone canals and water tanks, which demonstrates that they were well aware of how to handle their water resources (Richard, 1993).

Social Planning: The organization of the buildings and open spaces points suggest very much to the presence of a strong central power whether political or religious in character which closely controlled the organization and growth of everything on the Bāb edh-Dhrāʿ site. All these complex details help to stress the point that the city of Bāb edh-Dhrāʿ was a very sophisticated city that was way ahead of her era in terms of organization and planning in relation to other cities in the region (Dever, 1990; Levy, 1995; Schaub and Rast, 1979).

6. Rituals and Beliefs

One of the largest mass graves in ancient east, elaborately known as Bāb edh-Dhrāʿ cemetery, is said to carry thousands of individual and group burials (Rast, 1994; fig.2). Revealed from these studies are different modes of burial, such as grave reuse, multiple burials in a single grave, with offerings placed with the dead. All these practices speak of funerary importance to the people, and thus they are assumed to reflect a rather powerful belief in afterlife and even immortality (Schaub, 1982). The mass graves often show piles of bodies laid within an arched fashion one on another generated by years with added new ones on top and then items like pottery, tools, and weapons that are buried along with the deceased (Rast & Schaub, 2003).

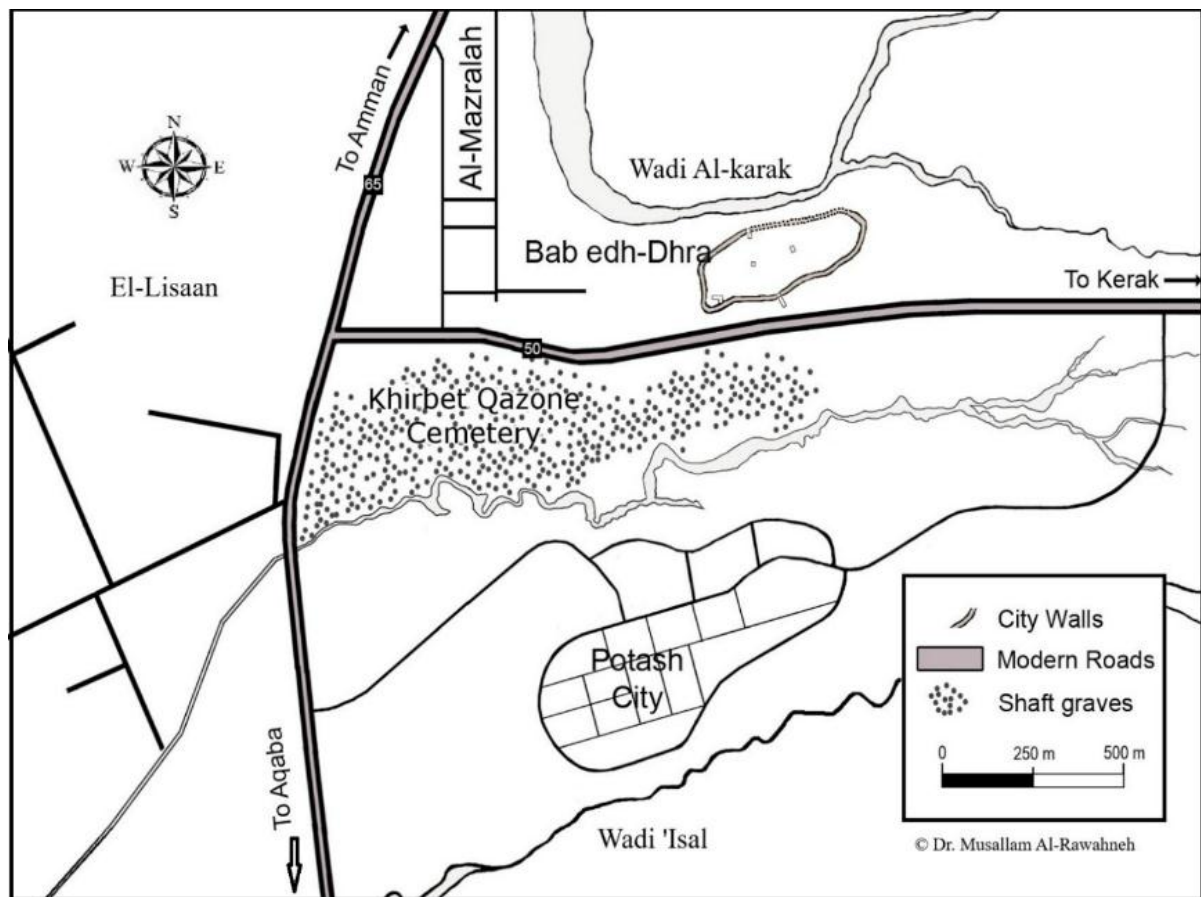


Fig.2. Map of Bāb edh-Dhrāʿ, illustrating the location of the settlement and cemetery. © 2014 Dr. David E. Graves, Electronic Christian Media.

As studies indicate, it would seem that rituals followed by the reuse of graves were conducted for the living to reopen tombs to deposit new bodies or retrieve certain things, thus suggesting an active and ongoing relationship between the living and the dead (Schaub, 1982). The distribution of burials and the presence of diverse types of burial methods (individual, collective, children, and adults) indicate the existence of a social and class division in the Bāb edh-Dhrāʿ society. The presence of decorated or larger burials indicates the existence of social or religious elites (Harrison, 2004). Therefore, we tend to believe that the beliefs associated with death and burial in Bāb edh-Dhrāʿ were developed and include belief in the other life and the need to provide the dead with everything they need on their journey to the other world, manifestations that are like other sites in Jordan and Palestine (Richard, 1993).

6.1 Funerary Rituals and Social Practices

Funerary rituals in Bāb edh-Dhrāʿ constitute a unique model in the history of the ancient East. Archaeological excavations at the site Bāb edh-Dhrāʿ revealed a huge mass grave of more than 20,000 graves, most of which were reused many times over successive generations (Dever, 1990; Last, 1994). Archaeological evidence indicates that the burial was carried out according to complex rituals, which

included placing the dead sideways or in squats similar to the position of the embryo or in an extended form, with the addition of large quantities of funerary attachments, including pottery, metal and stone tools, and sometimes pets or plant offerings (Scrub, 1982; Doubleday et al., 2002). It is remarkable that some of these burials were reopened to add new bodies, and the burial was repeated more than once in the grave itself, and sometimes the grave was reopened to take some of the materials or possessions in it, indicating a strong concept of collective memory and linking the living with the dead (Rast & Scrub, 2003).

Based on what people are buried with - such as pottery, tools, or weapons - tells us quite a lot about their lives. Seeing such groups of people being buried together suggests very strong connections between family or tribe ties. Sometimes, these rituals might have been overseen by religious leaders or elites, giving us a peek into the social and spiritual hierarchy of the society (Scrub, 1985; Harrison, 2004; Dever, 1990). These funerary rituals on the burial of the dead among the residents of Bāb edh-Dhrāʿ also indicate a very important aspect, which is the presence of advanced beliefs about life after death (immortality), which is consistent with burial patterns in similar sites in Jordan and Palestine (Richard, 1993), next to the fact that this belief is known in Egyptian civilization and religious belief, which indicates the existence of Egyptian religious links and influences on religious belief in the south of the Levant (Al-Rawahneh, 2007; 2013).

6.2 Types of Burials at Bāb edh-Dhrāʿ

The diversity of burial patterns at Bāb edh-Dhrāʿ not only reflects an evolution in architecture but also reveals complex social and religious structures, a clear class divide, as well as a strong presence of notions of other life and a belief in life after death. The interments from the site of Bāb edh-Dhrāʿ display a real mixture of styles and types, giving a foretaste of how people's views on death and their social lives were developing during the Early Bronze Age. We can sort these burials based on things like how they were built, the way they were arranged, and whether there was just one person or more buried together. The following is a presentation of the most prominent models and burial patterns:

A. Shaft Tombs: It is one of the oldest types of indoor tombs, narrow vertical pits drilled deep into the ground and ending with a small burial chamber. These burials often contained a single individual, accompanied by some artifacts such as pottery or stone and metal tools. These burials were used especially in the initial stages of settlement, and it is believed that they were associated with the middle and lower social classes, as they were simpler than collective burials (Lapp, 1968; Schaub & Rast, 1989).

B. Collective Vaults (Charter Tombs/Charnel House): Collective burials are a distinctive feature of the Bāb edh-Dhrāʿ site and include large numbers of individuals, in some cases more than 100 bodies in one grave—and these burials were often modeled in the form of circular or oval-shaped stone chambers, used for several repeated burials over different periods of time. These burials represent an advanced social and funerary concept that reflects collective rituals and indicates clan or religious associations, next to the presence of clay, copper, and organic foundries within them, indicating the practice of complex religious and funerary rites accompanying the burial process (Rast & Schaub, 1974), as well as tombs with patterns and other names, including the cairn burial (or tumulus tomb) (circular charnel houses), which are circular-shaped tombs dating back to the period 2650–2300 BC.

C. Chamber Tombs with Dromos: They consist of a long corridor that ends in a room or rooms, often constructed of stone. This type of burial was used in the late periods of the early Bronze Age and contained multiple and overlapping burials. These burials represent a development in funerary architecture and indicate progress in organizational and social awareness, and they are likely to be dedicated to elite families or religious groups of the Bāb edh-Dhrāʿ community (Lapp, 1989).

D. Jar Burials: A small number of burials were found inside large pottery jars, and the burial process was often conducted near the walls of houses or inside the public cemetery. These burials are due to a symbolic use that reflects a belief in the need to protect the child or his association with the place of residence. It is noted that this type of burial was associated as a funerary phenomenon with newborns or infants and may indicate a certain religious or ritual practice towards children (Dever, 1990).

E. Corbelled Tombs: In the construction of this type of burial, the method of building with an overlapping arch was used, which is an advanced method that shows architectural skills that are remarkable only for the residents of Bāb edh-Dhrāʿ. These burials indicate the presence of elite (legal people) in society that require distinctive funerary facilities. This type of burial with arches is rare compared to the previous four types, but it indicates a technical development in building methods and is an indication of the high status of the burial (Mazar, 1990).

6.3 Reasons for the Large Number of Burials at Bāb edh-Dhrāʿ

The unprecedented large density of burials in Bāb edh-Dhrāʿ is one of the most prominent archaeological central phenomena that has attracted the attention of researchers since the beginning of early archaeological excavations at the archaeological site and has distinguished the site from other sites of the early Bronze Age in the southern Levant. The presence of large numbers of burials in Bāb

edh-Dhrāʿ reflects a complex set of social, religious, economic, and environmental factors that have interacted over centuries of continuous use of cemeteries (Rast & Schaub, 2003), and these reasons collectively suggest that the sheer density of burials in Bāb edh-Dhrāʿ is not only a reflection of population growth but also reflects the religious, social, and political traditions followed by the residents of Bāb edh-Dhrāʿ, as well as the continuity of cemetery use across multiple generations (Rast & Schaub, 2003; Harrison, 2004). For some aspects of this phenomenon, there has been a public debate between the archaeologists and the researchers of ancient studies, and these have assigned it various reasons, the most important among:

A. Period of Continuity in Burial: The archaeological works have evidenced that the collective funerary structures in Bāb edh-Dhrāʿ have been occupied for long centuries; burials were continuously opened and reused, leading to the accumulation of enormous numbers of burials in the same small confined spaces (Rast & Schaub, 2003), as class studies revealed that many burials were reused over successive generations, as they were opened repeatedly to add new burials (Schaub, 1982; Rast & Schaub, 2003), thus doubling the number of burials without establishing new ones or creating a separate burial site for each individual (Schaub, 1982).

B. Regional Role of the Site as a Funerary Center: Bāb edh-Dhrāʿ's regional and central location in the Jordan Valley had a central funerary role in the region, making the Bāb edh-Dhrāʿ cemeteries a burial center not only for the city's residents but also perhaps for all neighboring communities in the Jordan Valley and elsewhere, which helped in the doubling of the number of burials clearly and significantly (Richard, 1993).

C. Symbolic and Religious Importance of the Site: The process of long continuance in the practice of burial rituals at the site of Bāb edh-Dhrāʿ, next to many of the features that characterize the site, has been characterized by the character of holiness and symbolism and has become a center of religious symbolism for communities in the southern Levant, which has gained it religious importance or symbolic ritual that has made it a favorite place to bury the dead (Rast & Schaub, 1976b). Perhaps this is what made the city of Abydos in Egypt of symbolic and religious status, as many Egyptians preferred to be buried there because it is the place where the god Osiris, the god of the underworld, was buried according to Egyptian myth (Al-Rawahneh, 2007; 2013).

D. Social and Religious Beliefs about Collective Burial: Archaeological and anatomical evidence shows that the local community attached great importance to mass funerary rituals while taking care to bury the dead in a unified mass grave, and this practice was associated with deep religious and social beliefs about community unity and collective memory and the importance of sacred places of

burial to be buried in unified places and to keep the collective memory alive through successive generations (Deve, 1990; Rast, 1994).

E. Population Growth and Urban Prosperity: The population growth and the great urban prosperity witnessed by the region during the Early Bronze Age, the third floor (EB III), which represents the peak of the prosperity of the Bāb edh-Dhrāʿ site, played a major role in the high burial rates, as the large increase in the population had to be matched by an increase in the number of deaths, which contributed to a clear increase in the number of burials (Rast & Schaub, 2003).

F. Environmental Factors: Environmental factors such as floods, droughts, or epidemics have contributed to an increase in the number of deaths in certain periods over successive years (Harrison, 2004). Thus, the number of burials within mass graves has increased (Rast & Schaub, 2003). Some periods may have experienced epidemics or natural disasters (such as droughts or floods), resulting in high mortality and an increase in the number of burials in short periods of time (Richard, 1993).

G. Geological Characteristics of the Site: The geological characteristics of the Bāb edh-Dhrāʿ site contributed to creating a suitable environment for the construction and excavation of tombs, as the nature of the soil in it was characterized by the fact that it is chalky soil that is easy to dig in, especially the tomb (tunnel) next to other types of tombs that have spread significantly in this site and no other sites, and thus the existence of a cemetery that is the largest ever in the southern Levant in particular (table no. 2) (LaBianca & Randall, 2013).

Table No. 2: Summary of the Reasons for the Large Number of Burials at Bāb edh-Dhrāʿ

Reason	Brief explanation	References
Burial time continuity	The use of the cemetery across several generations and the cemetery was reopened repeatedly, and several people were buried in the same grave during the period 3300-2000 BC.	Rast & Schaub, 2003; Schaub, 1982
Regional function of the site as a regional funerary center	The residents of the city and neighboring communities used the cemetery, where it played a role as a regional funerary center.	Richard, 1993; Rast & Schaub; Paul, 1989.
Religious Symbolic Likelihood of Location	The site had acquired a symbolic religious or ritual significance that made it a favorite place to bury the dead.	Rast & Schaub, 1976a; 1976b
	The importance of collective rituals, collective	Rast, 1994;

Funeral rituals and social customs	memory, and beliefs about uniform burials refers to symbolic or ritual connections with ancestors.	Dever, 1990;
Population Growth and Urban Prosperity	High population during site urban peaks	Rast & Schaub, 2003
Environmental Factors	Impact of floods, droughts, or epidemics on increased mortality rates	Harrison, 2004; Richard, 1993
Geological Characteristics of the Site	The nature of the chalky soil helped to facilitate the excavation of vertical burials, which facilitated the creation of a large cemetery in a specific place without technical obstacles.	LaBianca & Randall, 2013

7. Archaeological Material Discovered

Copious quantities of early Bronze Age characteristic pottery, such as jars, cups, and geometric pots, were found in Bāb edh-Dhrāʿ. Archaeological studies analyzing pottery artifacts from Bāb edh-Dhrāʿ have revealed they had trade links with other parts of Jordan and Palestine (Richard, 1993). Besides pottery, they have also found tools made of stone and metal, along with some organic materials that managed to survive over time.

A. Pottery: A vast number of pottery pieces were revealed at Bāb edh-Dhrāʿ, with about 2.5 million pots found during the first few seasons of digging (Lapp, 1966). These pots come from all parts of the Early Bronze Age. These would include large storage jars, smaller jars, cups and plates, often ornamented with simple geometric patterns in colors reds, browns, and blacks (Schaub, 1985; Richard, 1993). According to tests and comparisons, the pottery found locally was surprisingly excellent. Of note, some pieces originated from the nearby sites of Khirbet Al-Karak (Beit Yerah) and Tal Al-Sultan (Jericho), implying that trade must have been active between Bāb edh-Dhrāʿ and its neighboring sites (Schaub, 1985; Rast & Schaub, 2003).

B. The Stone Tools: unearthed by archaeologists at Bāb edh-Dhrāʿ are the tools that people would have utilized during the early Bronze Age for such activities as farming, hunting, and growing up. Thus, tools from arrowheads, blades, scrapers, machetes, and polished stone axes — mostly fashioned from flint, basalt, and local limestone — were uncovered. The results have been discussed by researchers like Schaub, Doubleday, and Rast (Schaub, 1982; Doubleday et al., 2002; Rast & Schaub, 2003). But very close examination of these tools revealed the fact that the people in Bāb

edh-Dhrā' were very good toolmakers who had really clever methods of shaping and polishing their tools such as compressing stone in order to create a very thin blade or grinding for the axes (Quintero et al., 2002). Some tools even show signs of use-the cut marks, wear from erosion or rust-giving the feeling that they were hard at work managing farms and producing labor (Rast, 1987; Quintero et al., 2002). It was also shown to morphological studies that some raw materials and tools were imported from really far away, thus implying that there was trade carried out between Bāb edh-Dhrā' other sites in the Jordan Valley and Palestine (Rast & Schaub, 2003). All these tools are indicative of specialized artisans in the community as well as a developing social organization on-site.

C. Metal Tools: Some metal tools like daggers, needles, and staples are available. Interestingly, these tools were made using local copper and imported copper (Rast & Schaub, 2003). These mini tools signify the beginning phase of metal use in creation; it suggests even more of the on-site metallurgy or metal skills development.

D. Organic Materials: On the organic side, burnt plant remains, grains of wheat, and barley included animal bones, showing that diet is quite diverse (Schaub & Rast, 1989). These finds will help understand farming habits and economic ways of life of people living in Bāb edh-Dhrā'.

8. The Regional Role of Bāb edh-Dhrā' Site: Trade and Communication Network

Bāb edh-Dhrā' is a strategic point along the ancient trade route from the southern to the central part of Syria. It dominated the caravan between north and south. The survey yielded foreign objects like pottery, stone, and other minerals, pointing to strong trade links with other localities, such as Khirbet al-Karak (Beit Yarah), Jericho, the Negev Hills, and others (Schaub, 1985; Richard, 1993). This means the site is integrated into a wider regional network (Rast & Schaub, 2003). The favorable geographic situation made Bāb edh-Dhrā' an economic and strategic outpost dominating the terrestrial pilgrim routes running between the Hijaz to the south and Jordan, Palestine, and Syria to the north; those elements also constituted a staging point for the transport of raw material to and from the agricultural and pastoral zones (Schaub & Rast, 1989). The finding of pottery and stone tools from non-local sources, including excellent quality basalt and flint, further attests to the site's inclusion within a broad regional network (Doubleday et al., 2002; Quintero et al., 2002). There is also proof of cultural interaction with adjacent communities for the exchange of goods and transmission of technical ideas or innovations (Levy, 1995).

9. Environmental Analysis: How Environmental Factors Shaped the Site

Climate, water resource availability, soil fertility, and changes in Dead Sea water levels had all major importance during the development and decline of this site (Rand & Schaub 1980; Rast 1987). The studies show that periods of profuse groundwater and fertile land helped promote urban prosperity. Prolonged dry spells beginning near the end of the Early Bronze Age were characteristic of the decline in settlement that affected the location of the site and the planning of the city (Schaub, 1982). This survey will take a closer look into the prime environmental determinants affecting the site.

Agriculture and Economy: The economy of the people who settled in Bāb edh-Dhrāʿ was on varied agricultural practice that consisted of farming to produce wheat, barley, and lentils with sheep and goat raising as a complementary source (Richard 1993). Therefore, this mixed economy was very important for the equilibrium and elasticity of their society.

Settlement Decline: Major changes in climate and the existence of prolonged drought intervals have caused this major shift. These dry conditions either forced the population to migrate or seriously contributed to the decline of the urban centers from the close of Smith and Heschina, 1987.

Interaction with the Environment: Archaeological evidence shows that the inhabitants of Bāb edh-Dhrāʿ developed elaborate adaptive strategies to their environment, including dams and canals for water management, water storage systems, and recycling their agricultural lands. In addition, their architecture exhibited an astonishing ability in adapting to the ambient environmental conditions (Rast and Schaub, 2003).

10. Bāb edh-Dhrāʿ and Biblical Narratives: Possible Relation with Sodom site

Bāb edh-Dhrāʿ is one of the most important archaeological sites that have been the subject of intense debate regarding its relationship with the Biblical cities of Sodom and Gomorrah, where Sodom is mentioned in the Book of Genesis as a prosperous city within the circle of Jordan, but it is also known for its moral corruption and its divine punishment of destruction (Genesis 13:10–13, 19:24–29). Descriptions of the biblical narrative, together with data on the geographical location of the southern Dead Sea, have led to the suggestion that Bāb edh-Dhrāʿ may be the remains of this mythical city (Mazar, 1990). We note that geographically, Bāb edh-Dhrāʿ is located on the southeastern bank of the Dead Sea, an area that matches the biblical description of the Jordan Plain or the "paradise of God" before it was destroyed (Dever, 2003). The site was known for its intensive settlement during the first and second early Bronze Age (3300-2350 BC) and for the existence of a huge cemetery indicating a complex urban society with several thousand inhabitants (Rast, 1989). The results of archaeological excavations, led by Walter Rast and Thomas Schaub, suggest the existence of massive defensive walls

and dwellings built of uncut stone and clay, demonstrating advanced urban planning (Rast & Schaub, 1989). In addition, evidence showed sudden destruction at the end of the Second Early Bronze Age, followed by complete abandonment of the site without any subsequent attempts at reconstruction (Schaub, 1987). W.F. Albright was one of the first to link the Door of the Arm to Sodom, based on geographical symmetry and indications of sudden destruction (Albright, 1946). He was followed by Nelson Glueck, who noted that the cities of the Circle of Jordan, including Bāb edh-Dhrāʿ and Khirbet Namirah, may represent famous biblical sites (Glueck, 1940). However, the time gap between the destruction of Sodom according to the biblical sequence (1800–1700 BC) and the archaeologically dated destruction of the portal of the arm (2350 BC) is highly problematic in this connection (Bienkowski, 1987).

In contrast, recent studies, such as Steven Collins 's, have argued that Israeli oral traditions can retain memories of an older catastrophe, such as the destruction of the arm door, even if the dates do not match accurately (Collins, 2013). As noted by Bryant G. Wood, certain geological phenomena around the Dead Sea, such as sulfur emissions and natural fires, may support the biblical account of “fire and sulfur” raining down on Sodom (Wood, 1997). About the huge size of the cemetery and the number of burials exceeding 20,000 graves, it is therefore one of the largest cemeteries in the early Bronze Age, prompting some conservative researchers to consider evidence of a collective catastrophic event (Rast & Schaub, 1974; 1989; 2003). However, recent research, such as that of Piotr Bienkowski, confirms that complex funerary rituals and the nature of joint burials are common cultural features of early Bronze Age societies and do not necessarily indicate sudden catastrophe (Bienkowski, 1992). From the above, the linking of the door of the arm to Sodom is based on general geography, evidence of destruction, and some literary traditions, but it lacks direct and confirmed archaeological evidence, and there are no biblical references or contemporary texts indicating that the door of the arm was known as Sodom. Plus, the gap in time between when Bāb edh-Dhrāʿ was destroyed, and the biblical story's event raises some big questions about whether we can really connect the two.

Conclusion: Future Research and New Directions

Bāb edh-Dhrāʿ remains a fertile ground for archaeological research in Jordan and the region due to its stratigraphic richness and the diversity of discovered materials, especially concerning the study of climatic changes and their impact on human settlement. Recent studies are moving towards analyzing biological, organic, and genetic materials of human remains, in addition to using remote sensing and 3D scanning techniques to create accurate maps of the site to reveal more details about the site and its history. Therefore, we review the most important of these future directions:

- Studying the impact of climatic changes on the continuity of settlement.
- Analyzing social relationships through the study of DNA from discovered bones.
- Studying the interaction between Bāb edh-Dhrāʿ and neighboring sites through material
- and written evidence.
- Documenting and protecting the site as a world heritage site at risk of disappearance.

It is further recommended that systematic archaeological excavations be carried out along with environmental scientists and anthropologists in order to give a better understanding of the history of Bāb edh-Dhrāʿ and its role in the entirety of human civilization.

المستخلص

إعادة تصور الأصول الحضريّة: المناظر الطبيعيّة الاجتماعيّة والدينيّة في باب الذراع في العصر البرونزي

المبكر في جنوبي بلاد الشام

مسلم رشد الرواحنة

يُعد موقع باب الذراع الأثري، الواقع جنوبي شرق البحر الميت، واحدًا من أكبر المواقع الأثرية في جنوبي الأردن، ويعود تاريخه إلى العصر البرونزي المبكر (3300-2000 ق.م). كانت المدينة المميزة تعكس وحدة التنظيم الاجتماعي، والديني، والبنية المعمارية، والمكانية. يهدف هذا البحث إلى تقديم تحليل شامل للمؤسسات الاجتماعيّة والدينيّة والحضريّة في باب الذراع، بالاعتماد على الأدلة المستقاة من الحفريات الأثرية، واللقى الأثرية والجنائزية، والمعالم المعمارية، والممارسات الجنائزية، وأنظمة الاستيطان، والمسوحات البيئية، بالإضافة إلى الأهمية الإقليمية للموقع. كما تهتم الدراسة بتصميم المدينة بما في ذلك الأسوار والتحصينات، والتخطيط، والاستخدام المشترك للمباني، ومدى قدرتها على فرض سلطة سياسية مركزية ونظام اجتماعي موحد.

تركز الدراسة على البنية الدينية لهذه المجتمعات، والتي يمكن إعادة بنائها من خلال تحليل الطقوس الجنائزية المعقدة في المقابر الجماعية الفريدة في مقبرة باب الذراع. حيث تم إحصاء آلاف المدافن في المقابر الجماعية الحجرية الكبيرة، مما يُظهر دليلًا على وجود نظام معقد من المعتقدات، وطقوس العبادة الجماعية المرتبطة بالموت. وتشير الأدلة إلى أن باب الذراع كان أكثر من مجرد مستوطنة زراعية؛ لقد كان مركزًا حضريًا ودينيًا يدل على وجود مجتمع بشري ومعتقدات دينية أكثر تعقيدًا في فترة سابقة من التاريخ الحضري، في جنوبي بلاد الشام.

الكلمات المفتاحية: جنوبي بلاد الشام، الأردن، باب الذراع، العصر البرونزي المبكر، التنظيم الاجتماعي والديني، الطقوس الجنائزية.

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