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# The Transition Phase from the Bronze Age to the Eras of Ancient Arab Kingdoms in Arabian Peninsula: "Visions and Questions"

مرحلة الانتقال من فترة العصر البرونزي إلى عصور الممالك العربية القديمة

"في الجزيرة العربية "رؤى وتساؤلات

**Dr/ Ali Mubarak Saleh. Tueaiman***
**Associate Professor of Archaeology and Ancient Architecture - Department of Tourism and Archaeology - Universit**y of Hai'l
tueaiman@uoh.edu.sa

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## Abstract

The Arabian Peninsula stands as one of the most significant sites of human settlement since ancient times. It has undergone transitions from the Neolithic to the Bronze Age. However, the transition from the Bronze Age to the era of ancient Arab kingdoms remains a crucial gap in the civilization of the Arabian Peninsula. While several researchers have addressed this period, the last decade of the 21st century has seen a surge in field research in the northern and northwestern Arabian Peninsula. These locations are significant due to their geographical proximity to the civilizations of the Levant, Egypt, and Mesopotamia. These studies have been preceded by similar research in the southern and eastern Arabian Peninsula, which has shed light on the cultural landscape during the transition from the Bronze Age to the era of ancient Arab kingdoms in the north and the south.

This study aims to identify the economic factors that led to the development of the Arabian Peninsula's inhabitants and their transition from the agricultural village stage, which prevailed from the beginning of the Early Bronze Age to the full emergence of cities by the end of the Late Bronze Age. The stages of this transition varied among different locations within the Arabian Peninsula, but they centered around agricultural oases that developed on the edges of ancient lakes, which contributed to the rise of Arabian cities. Some of these cities had already

* Dr/ Ali Mubarak, Saudi Arabia

emerged before the period of writing, which researchers often use as a benchmark for the beginning of the Arabian kingdoms.
**Keywords**: Third Millennium BC, Ancient Arabian Kingdoms, Oasis Urbanism ,Early Arab Cities.

**ملخص:**

تشكل الجزيرة العربية أحد أهم مواقع استقرار الإنسان منذ أقدم العصور، وقد مرت بمراحل الانتقال من العصر الحجري الحديث إلى العصر البرونزي، وتبقى مرحلة الانتقال من العصر البرونزي إلى مرحلة الممالك العربية القديمة الفجوة الهامة في حضارة الجزيرة العربية، وقد تناولها عدد من الباحثين، إلا أنه وفي العقد الأخير من القرن الواحد والعشرون نشطت الأبحاث الميدانية في شمال وشمال غرب الجزيرة العربية، وهي المواقع الهامة ذات القرب الجغرافي من حضارة بلاد الشام وبلاد مصر وبلاد الرافدين، حيث قد سبق تلك الدراسات ما يشابهها في جنوب الجزيرة العربية وشرقها، مما اتضحت الصورة الحضارية في مراحل الانتقال من العصر البرونزي إلى مرحلة الممالك العربية القديمة بالشمال والجنوب.

وتهدف الدراسة إلى التعرف على المقومات الاقتصادية التي أدت إلى تطور إنسان الجزيرة العربية وانتقاله من مرحلة القرى الزراعية التي سادت منذ بداية العصر البرونزي الأول حتى ظهور المدن بشكل كامل في نهاية العصر البرونزي المتأخر، وقد اختلفت مراحل انتقال إنسان الجزيرة من موقع إلى أخر، ولكن تركزت حول الواحات الزارعة التي قامت على حواف البحيرات القديمة مما ساعد في بروز المدن العربية، والتي سبق أن ظهر البعض منها قبل فترة الكتابة التي عادة ما يربط الباحثون ظهور الممالك العربية ببداية ظهور الكتابة.
**كلمات مفتاحية:** الألف الثالث قبل الميلاد، التحضّر في الواحات، المدن العربية المبكرة، الممالك العربية القديمة

## - Introduction

The Arabian Peninsula has been one of the most important locations for human presence since ancient times, as evidenced by scientific studies dating back to the Paleolithic, Mesolithic, and Neolithic Stone Ages. Settlement in the Arabian Peninsula continued during the initial transition from the Neolithic to the Bronze Age, which is the era in which civilization

transitioned from the Bronze Age to the period of ancient Arabian kingdoms.

This study addresses the phase that led humans to transition from a stage of nomadic and impermanent settlement to a stage of permanent settlement, which ultimately led to ownership, agriculture, trade, and production. They acquired diverse economic resources that enabled them to move from a phase of settling in scattered stone structures to the formation of agricultural villages. These villages represented a transitional phase in the development of ancient cities, which evolved from villages into cities possessing all the civilizational elements: walls, palaces, markets, ramparts, gates, and religious, legislative, and judicial authority. Thus, humans transitioned from the Bronze Age In my opinion. This stage was a stage of forming a civilization capable of competing with the civilizations of the ancient world in the neighboring ancient Near East region.

Researchers have traditionally linked civilization to writing. However, it is necessary to connect civilization to agriculture, settlement, and the construction of walled cities. These cities contained all the elements of ancient urban centers, forming during the period that began in the late second millennium BCE, marking the emergence of ancient Arabian kingdoms across the Arabian Peninsula, particularly in the northern, northwestern, and southern regions. Undoubtedly, these cities are no less significant than the cities of the ancient world where It should be noted that this is a personal interpretation and subject to academic debate. such as Mesopotamia and Egypt. Moreover, their urban structures often resemble those of the Levant, where agriculture and settlement appeared at an early stage, dating back to the late Neolithic period.

This study focuses on the transitional phase from the Bronze Age to the emergence of ancient Arabian kingdoms before the first millennium BCE. The geographic scope covers key oasis settlements and early urban centers across the Arabian Peninsula, including: Jebel Ruwaiq, Al-Faw, Khaybar Oasis, Tayma Oasis, Dūmat al-Jandal, Al-Ha’it Oasis, and Marib. These sites represent crucial locations where early agricultural villages evolved into cities that formed the foundation of ancient Arabian civilizations.

Perhaps the difference between the ancient civilizations of the ancient Near East and the oasis cities of the Arabian Peninsula is that the former saw the emergence of writing, which is associated with civilization, while writing in the Arabian Peninsula dates to the late second and early first millennium BCE at the latest. However, civilization existed, and cities with all their components were inhabited throughout the regions of the Arabian Peninsula, from north to south.

**Methodology**

This study adopts a historical-archaeological research approach, primarily based on the analysis of archaeological reports, inscriptions, and previous academic studies related to the major oases settlements in the Arabian Peninsula. These settlements, from south to north, paved the way for the emergence of ancient Arab cities in the Arabian Peninsula in general, and were the first centers of civilization in the Arabian Peninsula. The research methodology includes a comprehensive review and synthesis of secondary sources, including excavation reports from sites such as Khaybar, Tayma, Dumat al-Jandal, al-Faw, and Ma'rib. It also traces the beginnings of civilization in each of the cities and their surroundings, particularly in Ma'rib and Tayma, where writing later emerged with the discovery of material culture. Due to the limited availability of primary field data, the study focuses on a comparative analysis of archaeological evidence and historical records to reconstruct the transitional phase from nomadic settlements to early urbanization in these oases. The geographical scope of the study focuses on sites dating back to the Bronze Age and up to the early first millennium BC. Limitations include reliance on published sources and the lack of direct fieldwork at early Bronze Age sites and cities, which is an area for future research.

**1-Geography of the Ancient Peninsula**

The Arabian Peninsula is one of the largest peninsulas in the world, with a total area of 3.5 million square kilometers. It is surrounded by water on three sides: the Arabian Gulf to the east, the Red Sea to the west, and the Arabian Sea to the south (Sanlaville 117) Some divide the Arabian Peninsula into several regions, namely: southeastern Arabia, western Arabia, and northeastern Arabia.

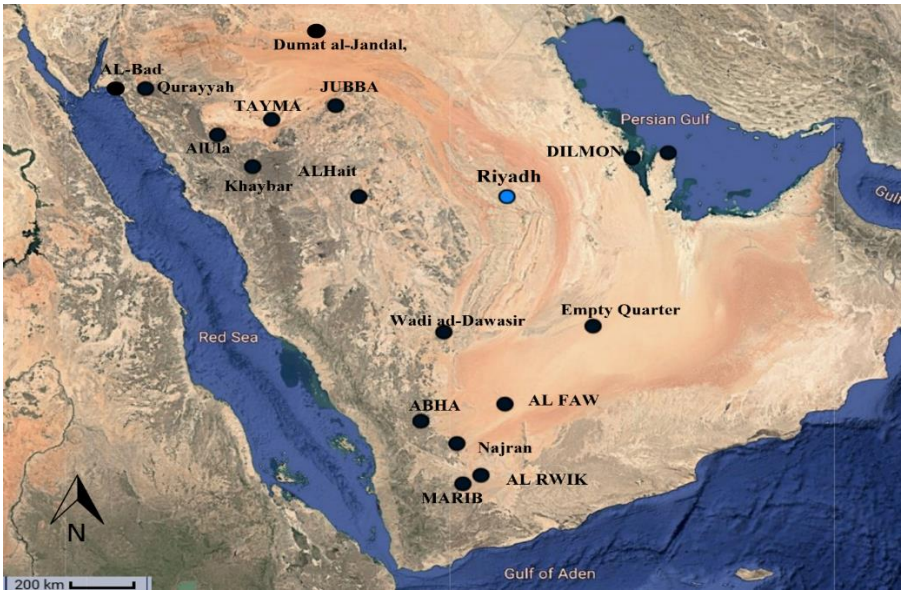



Fig1: Map of the Arabian Peninsula, including the sites of Bronze Age oases that were transformed into cities of the ancient Arab kingdoms.

Why is the Arabian Peninsula called by this name? Scientific studies indicate that the first written mention of the Arabs was in Assyrian records during the reign of the Assyrian King Shalmaneser III around 853 BCE, where the name 'Arabs' was referenced. Subsequently, references to the Arabs were repeated during the Assyrian periods of Tiglath-Pileser III and his successors, as well as by the Babylonian kings. We also find that settlement patterns in the Arabian Peninsula in the ancient world varied according to the diversity of terrain and the succession of wet and dry periods, which helped in the emergence of oases and the formation of ancient cities. (Kafafi 33–31).

The Arabian Peninsula is in the southern part of the continent of Asia, and it takes a shape closest to a rectangle. Geological studies The availability of surface and groundwater and trade routes contributed to the emergence of ancient civilizations, which led to the interconnection of the ancient cities of the Arabian Peninsula. have indicated that the Arabian Peninsula separated from the continent of Africa approximately 180 million years ago because of tectonic movements that led to this separation (Killebrew 106–109)

**2-The transition from the Bronze Age to the rise of the Arab kingdoms**

The transitional phase between the Bronze Age and the era of ancient Arabian kingdoms constituted a pivotal cultural stage in the history of humanity in the Arabian Peninsula. It was the period that led to the establishment of civilized kingdoms and greater stability, resulting in the formation of cities in agricultural oases, their emergence into kingdoms, and the development of administration and politics. Notably, the time during which these oases appeared dates to the Bronze Age, which spans from the fourth millennium B.C to the second millennium B.C.

This is the period during which centers of oasis civilization emerged in the Arabian Peninsula. This indicates that the Arabian Peninsula has not received the same level of field scientific studies compared to the Levant, which has yielded extensive results in the Bronze Age. In the Arabian Peninsula, the joint Saudi German archaeological mission indicated that the Tayma oasis dates to the third millennium B.C (Hausleiter et al. 25–30) which is the period when the Bronze Age began to be defined and oases appeared in the Arabian Peninsula, particularly in the northwestern Arabian Peninsula ((Eichmann and Hausleiter 163–176).

Among the most prominent practical studies conducted in the later period is the discovery of the Khaybar oasis, which, through analysis, has proven to be the largest agricultural-urban village that developed in northwestern Arabia. It dates to the Early Bronze Age I, approximately 2400-1500 BCE, during which settlement activity continued in the Bronze Age for nearly a thousand years. This demonstrates the earliest appearance of walled cities in the Arabian Peninsula, dating from the Early to the Late (Bronze Age) (Charloux et al. 4–5).

Additionally, evidence from southern Arabia, specifically in the ancient oases of Marib and Sirwah—both cities of the first Sabaean Kingdom at the end of the second millennium and the beginning of the first millennium B.C—has further disproven this earlier perspective (Pietsch et al. 2430–2445).

**3-The Ancient Environment in the Arabian Peninsula during the Mesolithic and Neolithic periods**

When tracing the ancient environment of the Arabian Peninsula, which dates to the Paleolithic period around 400-300 thousand years ago,

it is evident that it was based on the edges of lakes and waterbeds, indicating the arid conditions of that period (Nassr et al.) Subsequently, in the Middle Paleolithic period, there was a humid environment dating back approximately 25,000-3,000 ka, based on evidence found with the formation of lakes, limestone, and depressions where water gathered, forming ancient lakes (Petraglia et al. 1555–1559)

To demonstrate the existence of the ancient environment in which early humans lived during the Middle and Upper Paleolithic periods evidence has been found in Wadi Fatima in Mecca, the Dawadmi Governorate in the Riyadh region of central Arabia, and northern Arabia in Hail, Tabuk, and Al-Jawf. This indicates a humid environment that prevailed in the Arabian Peninsula, suitable for the conditions and life of early humans (Petraglia 141–179)

These sites have led researchers to conclude that they belong to the Middle and Upper Paleolithic periods, indicating the continuous settlement and movement of early humans in and around these areas (Shipton et al. 446–462) In the southern regions of the Arabian Peninsula, numerous sites dating back to the Neolithic period and the transitional phase between the Neolithic and Bronze Ages have emerged, including the Marib oasis, the capital of the Sabaean Kingdom in later periods, Climatic changes are also documented based on scientific studies conducted on organic material samples (Gerlach 187–198).

**4-The ancient environment of the Peninsula during the Bronze Age period:**

The ancient environment in the Arabian Peninsula during the Bronze Age The Bronze Age period in the Arabian Peninsula is the richest in terms of the diversity of archaeological sites and the material remains revealed by recent studies of those settlements. when humans discovered bronze, an alloy of 90% copper and 10% tin. Perhaps the most prominent archaeological evidence in northern Arabia is what recent studies have revealed about the environment, as uncovered in the Khaybar oasis (Al-Nata village). This serves as a model for the ancient environment that prevailed in the Arabian Peninsula, particularly in northwestern Arabia, which developed along the banks of Wadi Khaybar, forming an a cultivated oasis that enabled permanent settlemen. This indicates that the

ancient environment prevailing in the Bronze Age was moderately arid, representing the stage in which humans transitioned from a humid, lake-filled environment to agricultural oases. This is clarified by the study based on samples taken samples of plant remains from excavations, which were analyzed and showed periods from the Early to the Late Bronze Age (Charloux et al. 4–5)

In southern Arabia, which was not far removed from the climatic changes prevailing in the Arabian Peninsula, numerous sites date back to the Bronze Age. These include sites in the western highlands, revealed by field studies, which were characterized by the widespread use of agriculture—evidence that the environment in the highland regions of southern Arabia (modern-day Yemen) was more humid during that period—such as at the Hadur Hamdan site north of the capital, Sana'a. (De Maigret 134–159).

In central Arabia, recent scientific studies have confirmed the presence of a humid ancient environment that contributed to the formation of the Al-Faw village oasis. This development occurred during the second phase of the Bronze Age, which spans from the beginning of the third millennium BCE to the start of the first millennium BCE. The climatic evidence—such as sediment deposits and fossilized vegetation—indicates that the region experienced alternating humid and arid phases. The humid phase, around the foothills of the Tuwaiq Mountains, created favorable conditions for human settlement after a period of environmental stress and aridity in earlier times (Laursen and al-Otaibi 63–86).

**5-The journey from the village to the city in the Arabian Peninsula**

The concept of the "Neolithic Revolution" has been debated for decades, as the transition to agriculture, pottery, and sedentary life varied greatly across regions. In this study, we refer to the shift from village to city not as a sudden revolution, but rather as a gradual and complex journey—particularly during the Bronze Age. This journey marked a significant transformation in human history, as settlements evolved from simple agricultural villages into structured urban centers featuring walls, markets, and administrative buildings. This process is especially evident in regions like the Arabian Peninsula and the Levant, where early cities began to emerge from former oasis-based communities. The prevailing

view regarding the civilization of the Arabian Peninsula was that it did not extend beyond the beginning of the first millennium BCE. However, this view has been contradicted by the results of recent archaeological research conducted in the region, particularly in Tayma, Al- (Eichmann, Schaudig, and Hausleiter 136–176) and Khaybar (Charloux et al. 4–5)Therefore, researchers believe that the Arabian Peninsula witnessed significant shifts in settlement patterns. This resulted from the climatic changes that prevailed in the Arabian Peninsula, specifically the final phase of the wet periods, which led the Arabian Peninsula towards the desiccation of lakes, consequently causing a shift towards concentrating settlements around oases (Magee).




A- Fig: 2 Khaybar Oasis overlooking the valley of volcanic rocks, where the remains of palm trees can still be seen today, according to Charloux et al. fig. 2)

B- Tayma Oasis overlooking the salt marsh, today it appears amidst the modern buildings in the Tayma Governorate, according to (Kuntz,et al fig. A)

C- Dūmat al-Jandal Oasis village in northwest Tabuk, Saudi Arabia. It is one of the Bronze Age oases in which the city was formed, according to (Hüneburg, et.al.Fg8).

D- Dūmat al-Jandal Oasis in Al-Jawf, Kingdom of Saudi Arabia, is one of the oases that dates back to the Bronze Age and appeared in the formation of the city in historical times, according to ,(Loreto.Fg1).

When examining the southern Arabian Peninsula, we find that field scientific studies have demonstrated that early humans, during the transitional phase in the historical gap between the Bronze Age and the era of ancient Arabian kingdoms, and the shift from village to city, began establishing settlements dating back o the Paleolithic, Mesolithic, and Neolithic .These settlements date to the fifth millennium B.C (Ghaleb 30). Settlement occurred in the western areas of eastern Wadi outflows, known as the western highlands of Marib, particularly on a large scale in the second millennium BC. This led to human descent and settlement in oasis areas where floodwaters from the highlands overflowed, forming settlement oases. These oases facilitated human settlement and the emer gence of cities, marking a part of the transition from village to city and the ultimate appearance of cities in their final form during the era of ancient Arabian kingdoms (Ghaleb 132-124).




A- Fig: 3 The Hait Oasis in northwestern Saudi Arabia is one of the most prominent facades that witnessed the Bronze Age – researcher.

B- Al-Faw Oasis, located in the center of the Arabian Peninsula in the of Saudi Arabia, witnessed the First, Middle, and Late Bronze Ages, and was registered on the UNESCO 2024, according to the Al-Faw UNESCO - https://whc.unesco.org/en/list/1712/gallery/

**6-Features of the Bronze Age**

Perhaps one of the most prominent features of the Bronze Age in the Arabian Peninsula is metalworking, represented by copper and bronze, and their export and trade. Among the most important indications confirming this is what was discovered in sites in the eastern regions of the Peninsula, in what is today the Sultanate of Oman. These discoveries have proven that this area was a source for mining and manufacturing, along with pottery production. This qualitative leap in industry constituted a broad cultural development, marking the transition of the people of the Arabian Peninsula from villages to the formation of cities and settlements dating back to the Bronze Age.




A- Fig:4 Al- Ruwaiq Oasis, northeast of Marib city, is one of the ancient oases that witnessed the Bronze Age from the early to the late – researcher.

B- Marib Oasis, the capital of the Kingdom of Saba, is one of the ancient Arab cities that appeared at the end of the second millennium BC, according to scientific studies - researcher

This occurred during the period from 2700 BC to the beginning of the second millennium BC, known as the Umm an-Nar (mother of fire) civilization (2400-2000 BC), in addition to areas in the eastern Kingdom

of Saudi Arabia, which were distinguished by the presence of pottery and soapstone, as well as the interaction between the Mesopotamian civilization and the eastern Arabian Peninsula. These sites in the eastern region of the Arabian Peninsula, particularly in the Sultanate of Oman, serve as comparative examples. Studies have revealed activities of metal mining, manufacturing, and pottery production, reflecting a qualitative shift in industrial and cultural development during the Bronze Age (Kafafi 30-31).

Cities that emerged during the Bronze Age in the third millennium BCE generally represent the transition from nomadic life to urban settlement. This shift is perhaps the most significant characteristic of the Bronze Age. Cities appeared in the Levant and in the northern and northwestern parts of the Arabian Peninsula. Cities appeared in the Levant, near the northern and northwestern Arabian Peninsula, with Levantine cities dating back to the fourth millennium BC. Their importance and expansion increased with economic development and social cohesion based on production and the rise of cities. Following their example, many cities emerged, including Marib, the ancient capital of the Sabaean kingdom (Marqatan 2005).

**7-Ancient Oasis Sites in the Arabian Peninsula during the Bronze Age Period**

The Arabian Peninsula extends from north to south over vast areas. However, the sites dating back to the Bronze Age represent the last of the dry lakes, around which extensive oases formed and spread in the north, including Al-Hegra, Tayma, Qurayyah, Al-Ula, Al-Hait, Dumat al-Jandal, and Al-Bid. These are the settlements dating back to the Bronze Age, which extends from the fourth millennium BC to the second millennium BC. For example, the Khaybar oasis, where quantities of grains were found, on which the inhabitants of the Khaybar oasis relied for food production at the beginning of the Early Bronze Age (Charloux et al 22).

In Tayma, numerous animal remains were found, through which the economy that prevailed in the Tayma oasis, which is one of the ancient oases dating back to the Bronze Age, was identified. Its economy was based on animal meat, ( wild and domesticated ) especially goats and ibexes. This indicates the practice of an economy based on irrigation, in

addition to finding quantities of bird consumption, which indicates the practice of an economy in bird domestication (Dinies 205-214).

Among the sites that belong to the oases is the Qurayyah oasis in the far northwest of the Kingdom of Saudi Arabia, which, according to the preliminary results of samples of organic materials analyzed by C14, dates from 1500-1300 BC. This is the period representing the Late Bronze Age, which is the stage of building the site's walls (Charloux, et al).

In addition to the Al-Hait oasis, which dates back to periods of the Paleolithic, Mesolithic, and Neolithic eras, the settlement of the oasis between the harrahs in the oasis today continued to the Bronze Age period, which Khaybar belongs to, and it is close to it and in contact with it in terms of trade exchange, benefit from interests, and exchange of ideas and visions (Nassr et al).

Among the ancient oases in the central Arabian Peninsula is the Al-Faw site, which dates to the Bronze Age in the third millennium BC and continued until the second millennium BC. It is one of the sites confirmed by scientific studies due to its connection with the eastern Arabian Peninsula and the presence of Dilmunites seals (Laursen and al-Otaibi 63–86)

In the southern Arabian Peninsula, there is the Al-Ruwaik site, which is one of the sites dating back to the Bronze Age in the southern Arabian Peninsula, located northeast of the city of Marib. It is the area where floodwaters from the western highlands of Marib gathered, forming water lakes with an agricultural oasis. At the confluence of the valleys, it emerged from the Bronze Age at the beginning of the third millennium B.C (Crassard et al. 173–177) and continued until the population center shifted to the Marib oasis, which formed the ancient city of Marib, the capital of the Sabaean kingdom (Braemer et al. 21–44).

Scientific studies have proven that the sites of of (Khawlan, Al-Tyal)and Badbidah in the west of Marib city and ancient Sirwah. Consequently, represent Bronze Age oases in southern Arabia. The site of Qaniyah in Radman also coincides with the same period, extending from the late fourth millennium to the beginning of the third millennium BC. These sites constitute important evidence that sheds light on the

development of material culture during the Bronze Age in the Arabian Peninsula (Ghaleb 30**).**

**8-Economic fundamentals of the transitional period**

The ancient environment played a pivotal role in the transitional period from the Bronze Age to the period of the ancient Arab kingdoms. The environment in the northern and southern Arabian Peninsula had begun to decertify and dry up. Scientific field studies conducted at various sites in the Arabian Peninsula have proven through analysis the presence of humans in ancient oasis sites and that they practiced agriculture based on organized irrigation. This is a clear indication that humans relied on agriculture for food production and settlement. Perhaps what drove them to this was drought and the need to obtain food after settling.

A notable example comes from recent discoveries in the Khaybar Oasis, where scientific analysis of botanical remains—particularly date pits—alongside organic residue analysis, has provided concrete evidence of agricultural activity. These findings affirm that early communities relied on agriculture for food production, adapting to changing environmental conditions and developing sustainable practices that contributed to the emergence of stable settlements and early urban centers. (Kafafi) (Charloux et al).

With the increase in irrigation and production, it became necessary to establish legislative, religious, and social authorities based on economic foundations. Among the sites where confirmation of human presence, agriculture, settlement, and transformation was found is the Marib oasis, the capital of the Sabaean kingdom, specifically on the lower side of the ancient Marib Dam. A fire hearth was found there, and the charcoal (carbon) was analyzed using C14, which gave results dating back to the end of the Neolithic period and the beginning of the Bronze Age. In addition to plant remains, the presence of ancient irrigation systems at the site supports evidence of long-term settlement. This is an indication that humans gradually began to settle and practice agriculture and food production, perhaps the first steps in driving the wheel of history in the founding of cities. The hearth was covered by layers of accumulated silt, in which the expansion of organized irrigation was increased, dating back

to the Marib oasis from 2500-1000 B.C (Kühn, Pietsch and Gerlach 1305–1310).

Thus, we find that the Arabian Peninsula, in general, was not devoid of settlement in various regions. Rather, the focus was on water collection in the oases to ensure human survival and the continuation of life. This led to the utilization of agriculture and food production, which resulted in a surplus and the formation of legislative and judicial authorities, as well as the transition from a pastoral society to a settled society. This ultimately led to the formation of the ancient Arab kingdoms, which were founded on the establishment of agricultural cities (Al-Maamari 87–113).

Perhaps one of the most prominent supports for the transition from the stage of herding to the stage of agriculture and settlement is construction, as agriculture requires staying in one place, unlike herding which takes place over wide and scattered areas. Therefore, settlement and construction in these communities were the primary and most important archaeological and material evidence of stability (Charloux et al).

In the northern Arabian Peninsula, recent scientific studies have revealed several oases, most notably the Khaybar oasis, which is considered a model of cities where agriculture was based on organized irrigation. It was a confluence of valleys and contained springs and water sources that facilitated agriculture, food production, and settlement. The Al-Nata site in Khaybar is considered the heart of the agricultural village that emerged in Khaybar, in the area overlooking the oasis, which humans took care of, fortified, and built in an organized manner. This indicates that it only came about after an increase in economic resources represented by agriculture and organized irrigation management, along with contact and communication between agricultural villages with crops and livestock, and stable, secure food supplies, which qualified the establishment of large cities in the Peninsula with political centers (Charloux et al).

**What is the nature of the ancient relationships between the oases during the transitional period?**

The development of organized irrigation, agriculture, and settlements during the Early Bronze Age fostered trade networks that flourished in the Middle and Late Bronze Ages, a connection evidenced by modern scientific studies of the copper industry. Copper slag was found

on pottery shards, indicating that the industry began in the Khaybar oasis, possibly for export and use. This led to the development of both agriculture and trade, which qualified the rise of civilization and the transition from agriculture to industry. This transformed agricultural villages into urban centers, with the emergence of political entities. Other remnants were found in Harrat Al-Nar, near Khaybar, dating back to the period from 2400-1500 BC, a phase preceding the emergence of the famous ancient Arab kingdoms with their political entities. This leads us to conclude that trade in the Arabian Peninsula was the primary factor behind the development and emergence of cities. Moreover, the history of this transitional period extends beyond the first millennium BC, reaching back to the mid-second millennium BC, especially in the stable oasis cities (Dalton et al.) Trade was the main factor behind the development and establishment of the cities, as scientific studies have revealed that Al-Faw and Al-Ruwaik were sites connected to ancient trade and a network of routes that transported obsidian and metals that appeared during that period. (Laursen and al-Otaibi 63–86). (Braemer et al. 21–44).

Trade did not end with the end of the Bronze Age; rather, it continued at the beginning of the emergence of the ancient Arab kingdoms. Assyrian sources in Mesopotamia indicated that there was a commercial relationship between the cities of the Arabian Peninsula, which confirmed the naming of the Taymaites and Sabaeans, attributed to Tayma in the northern Arabian Peninsula and Saba in the southern Arabian Peninsula (Tueaiman 84–85).

Tayma was one of the cities where settlement began in the early periods and continued from the third millennium BC until the first millennium BC. It represented a link between the Arabian Peninsula and Mesopotamia, ending with the Babylonian king's control in the mid-first millennium BC. The Babylonian king took it as his capital and annexed the surrounding cities and cultural centers that represented former agricultural oases, such as Al-Hait (Fadak), Dumat Al-Jandal, Khaybar, and their surroundings (Charloux et al. 4–5).

**- Conclusion**

The study of the dawn of history in the Arabian Peninsula represents one of the most important studies discussed by many researchers of

Arabian Peninsula civilization. Given that it requires field studies based on samples from archaeological excavations and their analysis in international laboratories, it has been delayed in several sites in the Arabian Peninsula, especially in the oasis city sites in the north and northwest of the Arabian Peninsula. However, studies in the south and east of the Arabian Peninsula have preceded them. Consequently, we find that fortified walled cities with defensive fortifications, palaces, temples, and economies based on agriculture and livestock herding, along with urbanization, were enabled by the environment at the end of the wet phase in the Peninsula. The drying of lakes and the readiness of the Arabian Peninsula's people to adapt to drought and live around lakes facilitated the establishment of an agricultural economy based on organized irrigation and livestock herding. This led to increased production, which helped secure a more stable life for the people.

The growth of food production through agriculture, livestock raising, and poultry farming, as well as the dependence on these practices for survival, spurred the evolution of agricultural villages into independent cities. These cities, characterized by walls, palaces, temples, and markets, necessitated the establishment of political organization, social unity, and social hierarchies among their populations. Cities emerged and ancient Arab kingdoms were formed, which could not have appeared at the beginning of writing. The emergence of political and administrative systems in the Arab kingdoms or oasis cities of the northern and southern Arabian Peninsula should be traced back to the third and early second millennia BCE, rather than being solely associated with the advent of writing.

**Biography:**

1. Braemer, F., et al. (2001). Le bronze ancien du Ramlat as-Sabatayn (Yémen). Deux nécropoles de la première moitié du IIIe millénaire à la bordure du désert: Jebel Jidran et Jebel Ruwaiq. Paléorient, 27(1), 21–44.
2. Charloux, G., et al. (2024). A Bronze Age town in the Khaybar walled oasis: Debating early urbanization in Northwestern Arabia. PLOS ONE, 19(10), e0309963. https://doi.org/10.1371/journal.pone.0309963

3. Crassard, R., et al. (2010). Reuse of tombs or cultural continuity? The case of tower-tombs in Shabwa governorate (Yemen). In Death and Burial in Arabia and Beyond: Multidisciplinary Perspectives (pp. 173–177).
4. Dalton, M., et al. (2022). The Middle Holocene 'funerary avenues' of north-west Arabia. The Holocene, 32(3), 183–199. https://doi.org/10.1177/09596836211066319
5. De Maigret, A. (2002). Arabia Felix: An exploration of the archaeological history of Yemen. Stacey International.
6. Dinies, M. (2019). Holocene ecology in NW Arabia: Biotic resources and plant cultivation. In Decades in Deserts: Essays on Near Eastern Archaeology in Honour of Sumio Fujii (pp. 205–214). Rokuichi Syobou.
7. Eichmann, R., Schaudig, H., & Hausleiter, A. (2006). Archaeology and epigraphy at Tayma (Saudi Arabia). Arabian Archaeology and Epigraphy, 17(2), 163–176. https://doi.org/10.1111/j.1600-0471.2006.00225.x
8. Gerlach, I. (2012). Vorislamische Bewässerungssysteme in der Oase von Mārib, Jemen. In F. Klimscha, R. Eichmann, C. Schuler, & H. Fahlbusch (Eds.), Wasserwirtschaftliche Innovationen im archäologischen Kontext: Von den prähistorischen Anfängen bis zu den Metropolen der Antike (pp. 187–198). Leidorf.
9. Ghaleb, A. O. (1990). Agricultural practices in ancient Radman and Wadi al-Jubah (Yemen) (Doctoral dissertation, University of Pennsylvania).
10. Greenberg, R. (2019). The archaeology of the Bronze Age Levant. Cambridge University Press.
11. Hausleiter, A. (2010). The oasis of Tayma. In Roads of Arabia: Archaeology and History of the Kingdom of Saudi Arabia (pp. 218–261). Musée du Louvre.
12. Hausleiter, A., Al-Najem, M., & Eichmann, R. (2019). Taymā': Archaeological exploration, palaeoenvironment, cultural contacts (pp. 1–278).
13. Hüneburg, L., et al. (2019). Living at the wadi–integrating geomorphology and archaeology at the oasis of Qurayyah (NW Arabia). Journal of Maps, 15(2), 215–226. https://doi.org/10.1080/17445647.2019.1585982

14. Kafafi, Z. A. K. (2017). The history of the Arabian Peninsula and its antiquities before Islam (1st ed.). Abdul Rahman Al-Sudairy Cultural Center. (In Arabic).
15. Killebrew, A. E. (2022). The archaeology of the Bronze Age Levant: From urban origins to the demise of city-states, 3700–1000 BCE (pp. 106–109).
16. Kühn, P., Pietsch, D., & Gerlach, I. (2010). Archaeopedological analyses around a Neolithic hearth and the beginning of Sabaean irrigation in the oasis of Ma'rib (Ramlat as-Sab'atayn, Yemen). Journal of Archaeological Science, 37(6), 1305–1310. https://doi.org/10.1016/j.jas.2010.01.002
17. Kuntz, K., et al. (2021). Tayma, Saudi-Arabien. Bauwerkserhaltung. Die Arbeiten des Jahres 2018.
18. Laursen, S. T., & Al-Otaibi, F. (2023). From Dilmun to Wādī al-Fāw: A forgotten desert corridor, c. 2000 BC. Arabian Archaeology and Epigraphy, 34(1), 63–86. https://doi.org/10.1111/aae.12268
19. Loreto, R. (2016). The role of Dūmat al-Jandal in ancient north Arabian routes from pre-history to historical periods. In The Archaeology of North Arabia Oases and Landscapes: Proceedings of the International Congress held at the University of Vienna, 5–8 December 2013 (Vol. 4). Austrian Academy of Sciences.
20. Marqatan, M. H. (n.d.). The Sabaean capital of Marib: A study of its history and administrative and social structure in light of the Sabaean inscriptions. In The City in the Arab World in Light of Archaeological Discoveries: Origins and Development (pp. 107–144). Abdul Rahman Al-Sudairy Charitable Foundation. (In Arabic).
21. Nassr, A., et al. (2023). Monumental stone structure archaeology in Northwest Saudi Arabia: New investigations from the Al Ha'it Oasis. Journal of Eastern Mediterranean Archaeology and Heritage Studies, 11(1), 45–81. https://doi.org/10.5325/jeasmedarcherstu.11.1.0045
22. Nassr, A., et al. (2025). Landscape of Lower and Middle Paleolithic sites in Ha'il province, northern Saudi Arabia. L'Anthropologie, 103, 103346. https://doi.org/10.1016/j.anthro.2025.103346

23. Petraglia, M. D. (2003). The Lower Paleolithic of the Arabian Peninsula: Occupations, adaptations, and dispersals. Journal of World Prehistory, 17(2), 141–179.
24. Petraglia, M. D., et al. (2011). Middle Paleolithic occupation on a marine isotope stage 5 lakeshore in the Nefud Desert, Saudi Arabia. Quaternary Science Reviews, 30(13–14), 1555–1559.
25. Pietsch, D., et al. (2013). Standardised recording of sediments in the excavation of the Sabaean town of Sirwah, Yemen. Journal of Archaeological Science, 40(5), 2430–2445.
26. Sanlaville, P. (2000). Le Moyen-Orient arabe: le milieu et l'homme. FeniXX.
27. Shipton, C., et al. (2014). Large flake Acheulean in the Nefud Desert of northern Arabia. PaleoAnthropology, 2014, 446–462. https://doi.org/10.4207/PA.2014.ART88
28. Tueaiman, A. M. S. (2024). The civilizational role of the cities of Tayma and Marib in the Arabian Peninsula during the first half of the first millennium BC (A comparative study). In Proceedings of the Ninth Scientific Meeting of the Saudi Society for Archaeological Studies at Tabuk University (pp. 75–95). (In Arabic).
29. Tueaiman, A. M. S., & Salih, M. (2022). Gufaina dam in Ma'rib Oasis is a model of transformative dams in the pre-Islamic Kingdom of Saba: Architectural field study. Historical Kan Periodical, 15(57).