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UNLEASHING TRADE SECRETS OF MESOPOTAMIA: ANCIENT TO MODERN ERA

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Abstract

The Tigris and Euphrates rivers were responsible for the agricultural surplus of Mesopotamia. However, the scarcity of crucial raw materials like metals, timber, and stone induced its dependency on neighbouring countries further encouraging trade. This lead to long-term trade with Anatolia, Iranian plateau, Levant, Persian Gulf, Indus Valley and several other regions of world. Trade consequently became a driving force in Mesopotamian urbanisation, social organisation, and political power. This pivotal aspect of trade has never been studied previously hence there is a great need for better comprehension of the trade networks (land and river), associated commodities, and institutional procedures through reconstruction using the archaeological and scholarly research to get a glance over the inter-regional relations amongst them. A qualitative historical-analytic approach was undertaken to investigate Mesopotamian trade networks from the fourth to first millennia BCE. Administrative tablets, legal codes, royal inscriptions, seals, and other tangible evidence were studied to provide evidences towards the significance, structure, and development of Mesopotamian trading systems during the Sumerian, Akkadian, Babylonian, and Assyrian periods. This review article showcases how the scarcity of raw materials in Mesopotamia led to a well-established trade network which persevered even in the face of political upheaval, contributing to long-term economic stability and leaving a lasting mark on the history of international economic system.

Keywords: Mesopotamia, Ancient trade, Cuneiforms, Sumer, Babylon

INTRODUCTION

Mesopotamia, which covers much of modern Iraq and extends into eastern Syria and southeastern Turkey, is usually regarded as the cradle of civilisation (Map 1). The name derives from Greek and means "land between the rivers", referring to the region located between the Tigris and Euphrates. Around 4000 BCE, Sumer one of the first urban civilisation emerged here. The Sumerians developed a writing system known as cuneiform, which allowed them to record their literature, laws, and history. They also built impressive infrastructure, such as irrigation systems and canals, allowing them to cultivate food and feed an increasing population (Butt, Tabassum, and Imran 2023; Kuiper 2011).

Geographical and environmental variables basically divided ancient Mesopotamia into the northern Assyrian plains and the southern Babylonian alluvial zone (Map 2). Babylonia was further divided into Akkad in the north and the deltaic province of Sumer in the south, corresponding to greater cultural and economic differences. Marshlands separated Babylonia from Elam and the Zagros Mountains, allowing for both separation and continued connection. Mesopotamia was ruled by a succession of great dynasties, including the Akkadian (2334-2154 BCE), Babylonian (1894-539 BCE), and Assyrian (1365-609 BCE) empires, which built on earlier Sumerian advancements (McIntosh 2005; Butt, Tabassum, and Imran 2023).



Figure 1. Geographic Location of Mesopotamia within the Boundaries of Modern Middle East.
Source: Map data © Google (2026)

Ancient Mesopotamia became a prominent economic centre as a result of the early development of intensive agriculture and the strategic use of regional trade networks. The alluvial plains of the Tigris and Euphrates rivers made large-scale irrigation farming possible, resulting in significant agricultural surpluses by the late fifth millennium BCE. These surpluses laid the groundwork for economic expansion, enabling portions of the population to engage in non-agricultural occupations such as craft production, administration, and commerce. During the fourth millennium BCE, Mesopotamian cities developed into economic hubs. Southern Mesopotamia lacked essential raw commodities like metals, lumber, and stone, which created a strong incentive for long-distance trade with Anatolia, Iranian plateau, and Levant. Archaeological evidence, such as cylinder seals, and accounting tablets, demonstrates the existence of organised trading systems regulated by institutional authority. This institutionalized economy facilitated the accumulation of wealth, reinforced social hierarchies, and strengthened political authority. The integration of agriculture, trade, and administration produced a self-reinforcing economic system that underpinned Mesopotamia's urban expansion and long-term economic dominance in the ancient Near East (Hasanov 2023; Liverani 2005; A. Leo Oppenheim 1977; Butt, Tabassum, and Imran 2023).

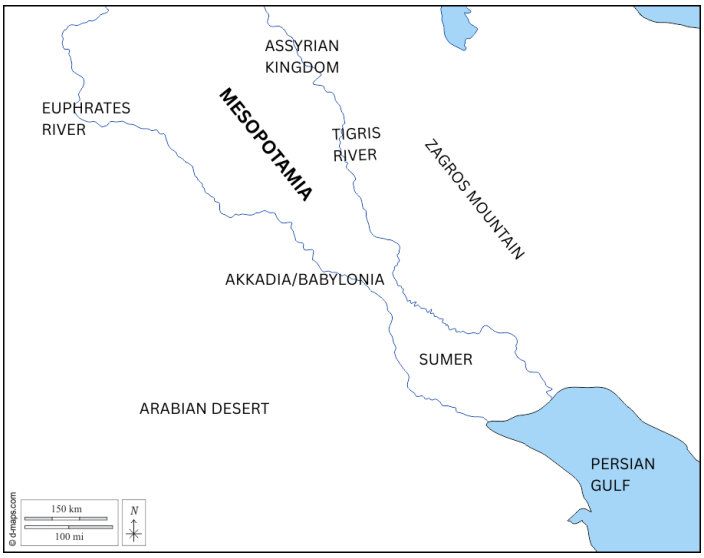


Figure 2. Map of Ancient Mesopotamia Illustrating Major Regions, Settlements, and the Tigris-Euphrates Rivers. Source: © 2007-2026 https://www.d-maps.com; modified by the author

Several theories explained the origin of early Mesopotamian city-states, many of which contradict the standard view of a linear progression from chiefdom to state. Early neo-evolutionary models, such as those proposed by Service, focused on increasing social hierarchy and administrative complexity. Other scholars, such as Adams, emphasised the importance of irrigation management in promoting centralised authority (Adams 1973; Service 1971). More contemporary models emphasised on economic integration and interregional commerce (Algaze 2001; Liverani 2005), as well as bottom-up processes based on household organisation and local communities (Yoffee et al. 2005). These approaches, taken together, reveal that early city-states arose through a variety of overlapping social, economic, and political processes, rather than simply evolving from chiefdoms. One of the well-accepted theory known as "Uruk expansion" where it posits that the growth of city-states is directly proportional to the intensification of the trade in Mesopotamia (Algaze 2008). The increased complexity of the trade networks went hand in hand with political, social, economic and technological innovations which further catered to the strengthening of these aspects (McMahon 2020). These were numerous theories proposed by various scholars that expound the formation of "early city-states" progressing from the earlier supposed model of "chiefdom".

The beginning of trade was entrenched in the unique geographical features of Mesopotamia. While being exceptionally rich in the water and land resources, it lacked materials like stone, metal and timber for the construction. This led to forging contacts with distant regions which stretched from Indus to Gulf. The commodities under trade ranged from materials like metal, stone, and timber to luxurious products like semi-precious stones and carved stone vessels (Edens 1992; Kolinski 2014; Wang 2023). Facilitation of trade took place through both water and land routes; these grew denser and more intricate over time. From the 4th millennium within the presence of various civilisations like Sumerian, Akkadian, Babylonian and Assyrian trade flourished. Archaeological evidence indicates that there was a continuous exchange of goods both within the southern and northern regions, as well as with

surrounding cultures, maintaining a certain level of stability despite times of political turmoil. (Al-Mutawalli 2018; T. F. Potts 1989). The rich legacy of Mesopotamia is reflected through the profuse bevy of cuneiform tablets, seals, grave goods, etc. along with its influence reflected even in the contemporary times bespeaks of a prosperous civilisation where trade played an integral role.

This study uses a qualitative historical-analytic approach to investigate Mesopotamian trade networks from the fourth to first millennia BCE. The analysis combines original literary evidence, archaeological data, and secondary research. Primary sources include published cuneiform administrative records, commercial documents, legal texts, and royal inscriptions that have been searched for references of trade players, commodities, routes, and institutional regulations. Archaeological evidences including as seals, standardised weights, transport vessels, and luxury commodities were utilised to pinpoint significant commercial hubs, industrial centres, and transit points. A comparative approach was used to evaluate continuity and change throughout the Sumerian, Akkadian, Babylonian, and Assyrian periods. The analysis acknowledges the constraints that result from inconsistent evidence preservation and focuses on reconstruct able trade patterns rather than quantitative estimations. This study analyses the organisation, evolution, and long-term relevance of Mesopotamian trade networks, focussing on how exchange systems influenced economic practices, institutional control, and interregional connectedness between the fourth and first millennia BCE.

MESOPOTAMIAN CIVILISATIONS AND THEIR CONTRIBUTIONS TO TRADE

From establishment of the first urban centres to codification of commercial law, Mesopotamia developed as a significant centre of economic exchange. This section offers a summary of the past framework that influenced its economic systems and trade networks, following developments from the early urban commerce of the Sumerians to the centralization of power by the Akkadians, the organization of markets and codification of laws by the Babylonians, and, lastly, the Assyrians foray into widespread interregional trade (Table 1).

Sumerians: The Roots of Urban Commerce

Sumer was in the southernmost part of Mesopotamia which at its peak comprised of 12 ‘city states’ namely Lagash, Kish, Uruk, Akshak, Nippur, Adab, Umma, Ur, Larsa, Larak, Bad-tibira, and Sippar (A. Leo Oppenheim 1977; Stone 1997; Yoffee 1995). Given its geography, the region of Sumer was affluent in agricultural and livestock products, which also constituted as exports to various places. This dearth of natural resources had made Sumer a very active participant in trade dynamics that had intensified over time. There are ample references to trade routes, transit points and inter-city trade carried out in this region. Regarding the estimated date, the consensus among the scholars of the emergence of Sumerian civilisation is approximately 4000 BCE (Kuhrt 1995). For instance, the term "*damgar*" which refers to a merchant in Sumerian, appears on some of the oldest tablets, suggesting that this profession was already well-established at that time (Crawford 2013).

The continuous exchange between the various regions had an impact on their culture which were often reflected in artifacts. For instance, Mari, an important Bronze Age city-state on the middle Euphrates in modern-day eastern Syria, developed a close relationship with

Sumer due to its strategic location as a major transit hub for goods facilitating the movement between southern and northern Mesopotamia, and Levant. Similarly, Ebla, a Bronze Age city-state in present-day northwestern Syria, and Tell Chuera, an urban settlement in northern Mesopotamia, played key roles in the larger interregional commerce network. Susa, the largest city of Elam in southwestern Iran, served as a major transit point for luxury items such as lapis lazuli, carved chlorite vessels, and metals imported from further north and east (Crawford 2013; Veenhof 2010). Isin was well-known in southern Mesopotamia for its leather items, whilst Adab was known for producing decorated steatite or chlorite vessels (Kohl 1975) (Map 3).The presence of trade connections between Elam and western Syria (Collon 2005) has been discovered through the analysis of a unique form of seal found throughout the Piedmont (Crawford 2013).

Apart from land-based trade networks, Sumer actively participated in maritime trade via sea-trade system based on riverine and Gulf routes. Merchants utilised boats to navigate the Euphrates and Tigris rivers, and they extended their travels into the Persian Gulf, connecting Sumer to Dilmun, Magan, and Meluhha. These maritime routes brought luxury and non-local commodities into Sumer, such as etched carnelian beads, raw lapis lazuli, shells, carved vessels, and exotic birds and animals (Caspers 1990; Ratnagar 2004). Evidences of intercity trade, from the Third Dynasty of Ur detail the transportation of substantial amounts of bitumen from Girsu to Ur, also provide evidence of organised transport. The extent of these trades is further demonstrated by archaeological objects found in the Royal Graves of Ur and other production sites (Forbes 1993). Furthermore, the employment of marine channels and a structured sea-trade system in Sumerian economic activity is clearly confirmed by textual allusions to the ship import of timber from Dilmun for temple construction under Ur-Nanshe's reign (Frayne 2008; Kenoyer 1997; Reade 2001; Zettler 2021).

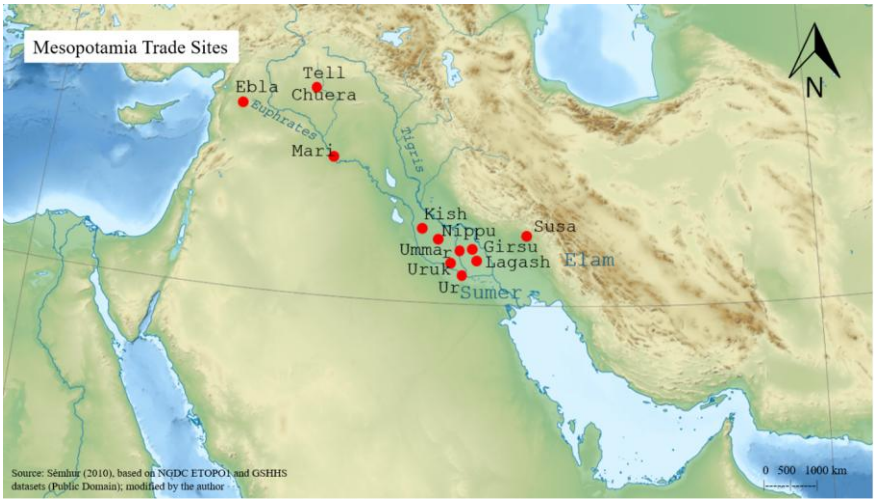


Figure 3. Mesopotamian Trade Sites. Source: Sémhur (2010), based on NGDC ETOPO1 data (Public Domain); modified by the author

Akkadians: Central Authority and Economic Influence

Scholars have debated the idea of the Mesopotamian polity for quite some time; some have even claimed that a Mesopotamian state, as we define it today, did not exist (Yoffee 2007;

Richardson 2012) . Even though the Mesopotamians did not have specific terms for "empire" or "religion" but both concepts were present in their society. If elements associated with expansion, control, and exploitation are considered it is safe to assume that the Mesopotamian states from the late third millennium BCE exhibited characteristics of an "empire", including systematic and ongoing occupation of conquered lands, the establishment of military outposts, and an organization of the territory into provinces that were answerable to the central authority (Chavalas 2016).

Exchange between settlements in the Khabur Triangle and the Middle Euphrates increased during the Akkadian period, when imperial authority reorganised and strengthened regional transportation lines. Akkadian political rule did not directly supply metals, but it did provide access to long-distance exchange systems that extended northward into Anatolia, a major supplier of metal resources. Metals from Anatolia could travel into northern Mesopotamia via the Middle Euphrates corridor thanks to Akkadian networks. Prior to the establishment of privately controlled trade in Akkad, it was primarily administered by the state. One of the well-known inscriptions of Sargon of Agade indicated Akkad's importance in the Gulf trade as it states that the ships of Meluhha, Dilmun, and Magan were docked in there (Frahm and Feinberg 2013; Kolinski 2014). Study of seal ('Sceau Cylindre', n.d.) provides evidence that a small Meluhhan village was established in Girsu which was initially a trading colony and had later transformed into an agricultural village. There are also evidences about the second king of the Akkadian empire, Rimush who proclaimed to have brought 3,600 *minas* of copper, 30 *minas* of gold, and slaves from Elam (T. F. Potts 1989; Lamberg-Karlovsky 1997).

Babylonians: Market Development and Legal Codification

Babylonia can be geographically described as the southern portion of Mesopotamia, starting from the point where the Tigris and Euphrates rivers come closer together, creating a stretch of land, at the southernmost end where the marshes are located, and further beyond that, the waters of the Persian Gulf (Leick 2007). The time frame of this empire can be divided into 3 parts: the Old Babylonian, the Middle Babylonian, and the Neo-Babylonian period. The Old Babylonian dynasty is dated to c. 1880-1595 BCE. Code of Hammurabi, carved in Akkadian on a basalt stele, is recognized as one of the earliest documented collections of laws in this regions. It governed commercial transactions, encompassing contracts, loans, interest rates, wages, and trade conflicts, demonstrating an advanced system of economic regulation. This codification aimed to ensure order throughout the growing Babylonian state and served as a blueprint for subsequent Near Eastern legal customs (Butt, Tabassum, and Imran 2023; Leemans 1968; Saggs 2000).

Middle Babylonian period however is a bone of contention among the scholars. One group of scholars are of the view that this period ranged between 1595-1155/1150 BCE whereas the others suggest that it lasted till 626 BCE. During this period, the Kassites had gained controlled over Babylon with the decline of the Old Babylonian dynasty. Trade flourished during this period and there are some references to diplomatic correspondence and possibly marriages between the Kassites and Egypt (Galter 2009; Saggs 2000). The significant role of Babylonia as a major supplier in the international bride market can also be observed

(Wang 2023). The last phase, known as the Neo-Babylonian period, lasted from 625 to 539 BCE and was under the rule of the Chaldean Dynasty. This period experienced a political revival, impressive architectural projects, and renewed urban growth, all fuelled by active commerce and ambitious imperial goals (Butt, Tabassum, and Imran 2023; Saggs 2000).

In case of the trade of textiles, it is mentioned that it costed one and a half to two *shekels* of silver in Babylonia, which got exported to Assur where it was sold for four to five *shekels* of silver. The same textile was sold for fourteen to sixteen *shekels* of silver in Anatolia (Barjamovic et al. 2019). Leemans in his work has proposed two routes that might have been used for trade between Babylonia and Egypt (Leemans 1960). One being the northern route passing Euphrates, Syria and the Mediterranean. The second was the southern route which used the sea to go around Arabia. Since the camels were not employed for travelling and transportation of goods, the path through the desert was inoperative. The textile industry of Babylonia was very famous, traded textiles, wool, barley, possibly leather goods, sesame oil and manufactured ornaments to Magan and Dilmun to obtain copper, precious stones, and red ochre (found on the island of Hormuz) (Carter 2013; Leemans 1968; Saggs 2000). This could be substantiated from texts unearthed in Lagash and Ur which infer to exports of barley and wool respectively. There are also mentions of merchants engaged in overseas trade. One such example is of a man named Ea-ndsir who had received orders from his business relations in Ur. As mentioned above, the transactions for the imported items were made using silver. The trade between these regions were conducted via sea around the Persian Gulf as attested through illustrations and inscriptions on numerous seals and cuneiform tablets (Leemans 1960, 1968).

Assyrians: Expansion and Interregional Trade

The city of Assur, located in northern Iraq, is first mentioned during the rule of the Sargonic Akkadian kings towards the end of the 3rd millennium BCE. By the conclusion of that millennium, it remained a province under the Sumerian Ur III dynasty. Following the collapse of the Ur III state, the city of Assur gained independence, as evidenced by the numerous commercial documents from Kanesh, a significant trading hub in Anatolia (c. 2000-1800 BCE) (Chavalas 2016). Established in the northern half of the Mesopotamia, their chronology can be split into Early Assyrian, Old Assyrian, Middle Assyrian and Neo-Assyrian. The inclusion of the Early Assyrian period (approx. mid-third millennium BCE) in the Assyrian chronology is controversial since this period focuses on the history of Assur before it became an independent city state in Mesopotamia (Veenhof and Eidem 2008).

Kanesh evolved into the primary trading hub within the Assyrian landscape (Özgüç 1963; Veenhof 2010). It served as an entrepôt for the goods especially Babylonian textiles (*kutanu, subatu*, etc.) and tin which was further disseminated to other trading outposts. Gold and silver were used as currency for exchange purposes (Lassen 2013; Oguchi 1999; Podany 2012). The western trading hub of the Assyrian empire was Purushhaddum/ Purushattam which played a vital role as an intermediary marketplace between Anatolia and Mesopotamia. The merchants in this market traded goods that would be transported either downstream to Thrace, Aegean, or to the areas located in the mountainous regions (Barjamovic et al. 2019). One key factor that incresed trade was the number of Assyrian settlements called *karu* and *wabaratum*

spread over Northern Mesopotamia and Anatolia constituting the Old Assyrian trade network (Oguchi 1999; Veenhof 2010).

Metals like gold, silver, copper, and tin formed key imports to Assur from distant regions. Anatolian copper especially was imported to Assyria to produce bronze locally. Tin (*annakum*) formed almost 50% of the imports for this purpose as it was required in huge quantities (Carter 2013; Özgüç 1963; Larsen 2015). Assyria's commercial activities were diversified and strengthened by the inclusion of locally sourced tin ores in their trade offerings. A study suggested that the difference in the price of silver in the markets of Anatolia and Mesopotamia propelled the trade (Barjamovic et al. 2019). An inscription mentioned 'Ashur-bel-kala' receiving gifts in the form of exotic animals from an anonymous Egyptian king, establishing that there were relations between Egypt and Assyria (Elat 1978). Assyrian locations such as Kanesh essentially operated as a hub for the exchange of goods, which further strengthened Assur's role in the trade network. Its importance could further be gleaned from the various treaty agreements between the rulers for the continuation of caravan trade even in the face of political unrest (Veenhof and Eidem 2008).

Table 1. Mesopotamian Trade Through Civilisations

Civilisation	Territory	Key Traded Goods	Trade Connection	Significance	References
Sumerians	Southern Mesopotamia	Copper, Bitumen, Semi-Precious Stones	Dilmun, Magan, Meluhha, Elam	Pioneered urban markets as reflected in early cuneiform trade records	Algaze 2008, Crawford 2013
Akkadians	Unified Northern and Southern Mesopotamia	Grains, Metals, Bitumen, Timber	Syria, Anatolia, Elam, Persian Gulf	Centralized trade administration, control over trade routes	Mieroop 1997, Frahm and Feinberg 2013
Babylonians	Central and Southern Mesopotamia	Textiles, Wool, Grain, Dates, Oil, Lapis Lazuli	Egypt, Levant, Anatolia, Persian Gulf, Indus Valley	Legal codification of trade (Code of Hammurabi), expanded urban markets	Oppenheim 1977, Leemans 1960, Carter 2013
Assyrians	Northern Mesopotamia	Tin, Textiles, Bronze, Luxury Items	Anatolia, Levant, Egypt	Long-distance trade dominance, merchant colonies (e.g., Kanesh)	Oguchi 1999, Kolinski 2014

ECONOMIC ARTERIES OF MESOPOTAMIA: TRADE ROUTES, GOODS, AND CROSS-REGIONAL EXCHANGE

This section delves into Mesopotamian commerce systems, showcasing how interconnected land and river networks along the Tigris and Euphrates facilitated both internal and long-distance exchange, as well as the movement of goods ranging from common necessities to rare luxury items.

River Based Trade Routes

The geographical boundary of Mesopotamia, located to the east of the Persian Gulf and west of Baghdad, constrained its trade through land routes; however, the presence of canals and rivers provided a significant advantage for initiating trade via waterways. Maritime routes were commonly preferred for travel to the Red Sea, Gulf to India, Arabia's southern coast and many other places, along with these riverine routes were often used for conducting internal trade as well (Hornell 1941; Neyland 1992). The primary cause of this reliance was the effectiveness provided in the transport of large items, which made the process less labour-intensive and quicker. Boats (called *ma* and *eleppu* in Sumerian and Akkadian respectively), ships of different shapes and size were favoured for this purpose. The larger boats like barges and ferries were limited in number due to the paucity of timber, circular coracles (*quffahs*) and inflated animal skin rafts (*keleks*) (Bertman 2003; Hornell 1941; Hnaihen 2021; Butt, Tabassum, and Imran 2023). Interspersed references about the application of bitumen on a new boat were found on tablets and the reed impressions on the bitumen slab remains as also give a peak into the construction process of the water transport (Connan et al. 2005; Algaze 2008; Zarins 2008).

The information regarding trade supported by references as well as the royal inscriptions. For instance, "Sargon … caused the boats of Meluhha (India), the boats of Magan (Oman), and the boats of Dilmun (Bahrain/Gulf) co dock at the quays of Agade (CDLI contributors 2025, 2025). This is further substantiated by Kuhrt in the work of *Manishtushu*, the king of Kish crossing the Lower Sea using boats (Kuhrt 1995; Podany 2010). Depictions of these rafts and boats on the seals and the tablets have assisted the scholars in unravelling the questions surrounding transportation (Hnaihen 2021; Laursen 2021; Neyland 1992).

The intricate web of artificial canals and the Tigris and Euphrates served twin purpose of irrigation and transportation. The ships travelled from the Mediterranean to the west and from the Arabian Gulf to the east (Leemans 1977). The Arabian Gulf route is documented in one of the inscriptions of Ur-Nansha of Lagash dating to 3rd millennium BCE wherein he talks about the shipment of woods from Dilmun transported using this passage (Al-Mutawalli 2018).

Four chief regions were said to be involved in the Gulf trade (Map 4). The first included the locale of Southern Mesopotamia and Elam, with key port cities of Susa, Lagash, and Ur. The second area included the islands of Bahrain (Dilmun) and Failaka, along with the southern coastal region (approximately the territory associated with the Barbar archaeological culture). The third region included the south-eastern Arabian Peninsula, specifically the area of Oman (Magan), which encompasses the mountainous zones of Oman and the Gulf of Oman, alongside the lower Gulf area that has archaeological evidence of the Wadi Suq, Umm an-Nar, and Hafit. Finally, the fourth region in this Gulf trade consisted of the coastal communities located between Lothal and Sutkagen-Dor, which were part of the Indus Valley civilisation (Meluhha) that forms the Harappan archaeological sequence (Edens 1992) .

As most of the trade were carried out through the rivers, the river traffic was mostly dense. In a nutshell, the waterways (riverine and canal system) emerged as the backbone of trading passages, especially in the case of transportation of bulky goods such as timber logs and stone blocks (T. F. Potts 1993).

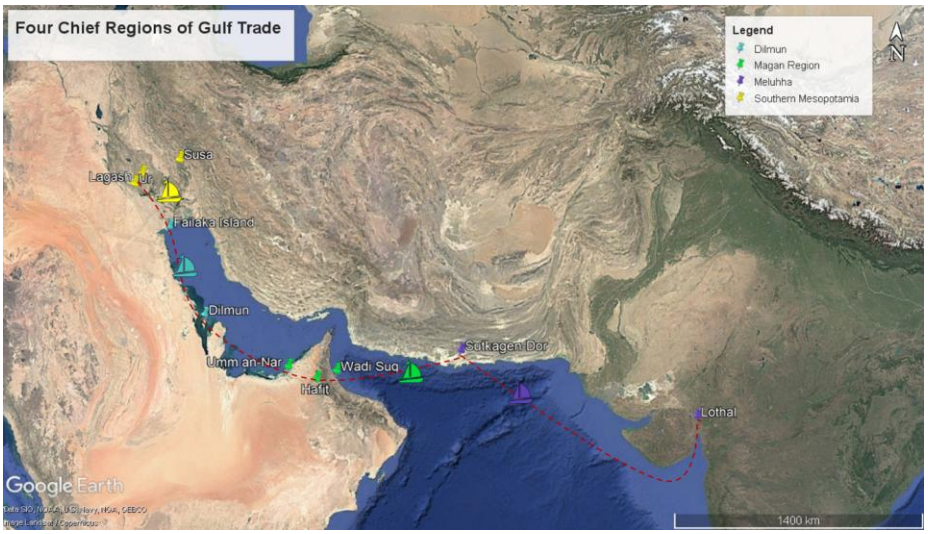


Figure 4. Four Chief Regions of Gulf Trade, with Distinct Colours Indicating Different Regions. Source: Google Earth (2026); modified by the author

Land Based Trade Routes

Trade in Mesopotamia was also carried out over land. Most of the scholars are of the view that two major land routes existed which connected the southern delta and the west. One of the routes that began in Sippar, passing through Mari and the desert, ultimately arriving at Qatna and the Phoenician ports along the Mediterranean Sea (Table 2). The alternative route, while longer, was safer. It began in Sippar and traversed Nineveh, Nagar, and Harran before arriving at the sea. Transporting goods from the eastern region of the country through the mountainous area was proven to be a difficult endeavour. Certain inland paths traced the Tigris River, passing through Assur and Ekallatum, before proceeding northward to Shubat-Enlil. The subsequent stop along this route was Harran, situated across the steppe. This direction then shifted southward, crossing the Euphrates near Tuttul and continuing west toward Emar (Butt, Tabassum, and Imran 2023). It was noted that there were three main caravan routes originating from the south. The first route linked the port city of Ur with Nippur and Ashur respectively; the second route connected various cities along the Tigris River; and the third route extended from Elam, traversing Der, towards the eastern side of the Tigris, and then reaching Ashur (Kuhrt 1995).

There are significantly fewer detailed references regarding land transportation compared to those for water transportation found in written sources. One of the rare mentions of land transport comes from a cuneiform tablet housed in the National Museum of Syria, which describes a "four-wheeled wagon with a covering, a four-wheeled wagon, a two-wheeled wagon, and a four-wheeled transport wagon" in the 9th column of the tablet from Ebla, dated approximately between 2350-2250 BC (‘ARET 12, 0337 + Unp. Frag. Artifact Entry (No. P242433)’ 2024). Another tablet that mentions Sippar as its provenance is from the collection of Penn Museum in USA, it mentions transportation of goods through caravan (Penn Museum, n.d.). In the Royal Tombs of Ur, remains of wagon had been unearthed by C.L. Woolley which

further substantiates its use for the transfer of goods on land (Saggs 2000). In addition to this, a tablet from Ur references the use of donkeys for transporting goods across mountainous regions ('CDLI Literary 000369, Ex. 010 Artifact Entry (No. P346132).' 2024; Leemans 1968). Images on seals and pottery items, such as the Warka vase (a large alabaster container showcasing multiple scenes in a sequence of registers), illustrate donkeys or onagers alongside cattle drawing carts. Consequently, these animals were employed to carry goods from one region to another, for instance, from Anatolia to Babylon (Bossuyt, Broze, and Ginsburgh 2001; Chau 2008; Cheng 2007; Nardo and Kebric 2009).

Table 2. Mesopotamian Land Trade Routes

Land Trade Route	Connected Regions	Key Traded Goods	References
Zagros Mountain Route	Mesopotamia ↔ Elam and Iranian Plateau	Timber, Stone, Metals (Copper, Tin), Textiles	Alexander and Violet 2012, Algaze 2008, Al-Mutawalli 2018, Potts 1993
Syrian-Levantine Route	Babylon ↔ Mari ↔ Ebla ↔ Levant	Timber (Cedar), Wine, Olive Oil, Luxury Goods	Al-Mutawalli 2018, Mieroop 1997, Oppenheim 1977
Northern Anatolian Route	Ashur ↔ Kanesh	Tin, Textiles, Silver	Barjamovic et al. 2019, Lassen 2010, Oguchi 1999
Tigris-Euphrates Corridor	Uruk ↔ Akkad ↔ Assur	Grain, Livestock, Wool, Leather Goods	Bossuyt, Broze, and Ginsburgh 2001, Crawford 2013, McCorriston 1997
Western Desert Caravan Routes	Babylon ↔ Syria ↔ Northern Arabia	Incense, Spices, Textiles	Algaze 2008, Crawford 2013, Potts 2009, Zarins 2008
Eastern Route	Southern Mesopotamia ↔ Zagros foothills	Copper, Lapis Lazuli, Stone	Al-Mutawalli 2018, Begemann et al. 2010, Majidzadeh 1982

Domestic Trade Networks

Trade within Mesopotamia was essential for its economy. The fertile southern region supplied grains and vegetables to the northern part, while the north provided livestock, stones, and timber in return (Kamil 2020; Lamberg-Karlovsky 1997; McMahon 2020; T. F. Potts 1989). One of the tablets in housed in the Arkeoloji Müzeleri, Istanbul, talked about barley being shipped to Nippur ('ITT 3, 05363 Artifact Entry (No. P111172).' 2024). There were also references to the movement of barley along different delays, detailing the pathway through 'Umma harbour to Irisagrig reservoir'('UTI 4, 2896 Artifact Entry (No. P140915)' 2024). These tablets housed in the Archaeological Museums of Istanbul, date back to the Ur III period from Umma. Leemans referenced another example of internal trade occurring in Mesopotamia where a letter indicated that goods needed to be sent from Kish to Larsa. Gruber noted that by the 3rd millennium BCE, the Sumerians had begun to raise sheep and goats for their own purposes. Leemans also confirmed this by citing various letters discussing about sheep-keeping and sheep-farming in south Mesopotamia (Leemans 1968; Gruber 1948).

Some of the chief centres of trade which surfaced in the Mesopotamian terrain were Tello (Girsu), Lagash, Uruk, Isin, Umma, Eshnunna, Ebla, Sippar and Mari. Sippar was specialized in paint production. Tello and Lagash were also active participants in the fish trade, and Umma was involved in the production of aromatic oils and export of sheeps and goats (Table 3). Fishes were also often offered to the Gods and Goddesses like *Enki, Innana, Sin*, thus forming an integral component of internal trade in Mesopotamia (Buren 1948; 'CDLI Literary 000389, Ex. 002 Artifact Entry' 2023, 000389; Wilson 1987; D. T. Potts 2009). Extensive evidences from the Sumerian cities Umma and Girsu confirms the inter-city trading bonds between the Sumerian and Babylonian regions (Al-Mutawalli 2018).

One of the important inventions of this period was the potter's wheel which made the production of earthenware more methodical (Bossuyt, Broze, and Ginsburgh 2001). Staples therefore became the central commodity to be used for trade in case of Mesopotamia. These were transported on both the smaller and the larger boats to the different places using the river routes (Algaze 2008). Whereas on the land donkeys, onagers and caravans served as the mode of transport. Another instance regarding the internal trade mentioned textiles being imported to Assur from Babylon (McBride 1977). Apart from the internal trading bonds between the cities, like Assyria and Babylonia, they were also involved in border disputes/agreements, conquests, mutual assistance and diplomatic marriages (Galter 2009; Lafont 2001; Podany 2010). One instance of such diplomatic marriage was between prince of Kish and princess of Keshdut, Ebla (Podany 2010). Internal trade was therefore a vital aspect in the Mesopotamian economy, especially due to its symbiotic nature.

Table 3. Major Regions and Goods of Internal Trade in Mesopotamia

Region	Traded Goods	Significance	Reference
Ur	Wool, Textiles, Barley, Fish and Leather Goods	Urban centre in Sumer that featured comprehensive internal distribution facilitated by temple and palace systems	Alexander and Violet 2012, McBride 1977, Nemet-Nejat 2002
Uruk	Grain, Pottery and Tools	Urban commercial centre with advanced administrative frameworks and nascent market economies	Algaze 2008, Liverani 2005, Maiocchi 2019, McMahon 2020
Lagash	Grain, Wool, Fish and Manufactured Goods	Regional hub with cuneiform records indicating organized temple and private commerce	Alexander and Violet 2012, Kramer 1963, McCorriston 1997
Kish	Textiles, Grain and Livestock	Served as a key overland connection linking northern and southern Mesopotamia	Algaze 2008, Crawford 2013, Mieroop 1997, Yoffee 1995
Isin and Larsa	Oil, Wool, Dates and Textiles	Economic data indicate a lively trade of essential and luxury goods between cities	Al-Mutawalli 2018, Crawford 2013

Long Distance Trade Networks

The Gulf area was a very dynamic area where different articles like ivory, timber, aromatics, cereals, wool, textiles (Alexander and Violet 2012; Lassen 2010), metals, shells , stones, condiments, semi-precious stones (Frenez 2019; Kenoyer 1997; Law 2011), unguents, resins ceramics and perhaps pearls along with some finished products of stone, wood, or metal formed part of trading goods (Francfort 2019; Majidzadeh 1982).

Mesopotamia emerged as a key participant in the Gulf trade. Linen was imported from Dilmun and Egypt to Mesopotamia, and their use can be attested from the various images of the kings and other divinities (Edens 1992; Elat 1978). Various species of aquatic animals producing shells like *Turbinella pyrum* (indigenous to India), *Lambis truncata sebae*, and *Lambis lambis* (readily available in the Indo-Pacific region) were sourced from Mesopotamia for lamp and jewellery production (Edens 1992; Gensheimer 1984). There are also evidences of production of objects made of bone and ivory in the 3rd millennium BCE (Lamberg-Karlovsky 1997). Lapis lazuli and gold became important luxury products imported to Mesopotamia from distant regions (Butt, Tabassum, and Imran 2023). Many tablets allude to the sourcing and extensive use of gold and lapis lazuli alike ('CDLI Literary 000332, Ex. 003 Artifact Entry (No. P346086)' 2024; Oracc Etcsri 2020).

Copper in Mesopotamia was sourced from Anatolia, Magan and Dilmun. Other metals imported in Mesopotamia due to their paucity included tin, silver and iron (Begemann et al. 2010; McBride 1977). Another interesting commodity under trade was purple cloth which was dyed using the crushed sea snails indigenous to the Phoenician sea coast (Breniquet and Michel 2014; Nemet-Nejat 2002).

Literary sources mentioned that materials like tin from Persia, stone from Zagros, wood from Lebanon, silver from Armenia, precious stones, oils and slaves were featured into the collection of imports (Al-Mutawalli 2018). In exchange, Mesopotamia sent surplus fish, grains (cereals and sesame), textiles (wool), and leather (hides) to these regions (Edens 1992; A. L. Oppenheim 1954). Evidence regarding this kind of trade with foreign dealers that Ezekiel referenced, "Sheba and Raamah as dealers in perfumes, precious stones, and gold". It also mentioned that formal gifts like horses and chariots were sent to Egypt from Babylonia (Levey 1959; Gruber 1948). Afar became a supplier of stones for the construction of buildings and tiles around 3rd millennium BCE. One of the finished products to be imported in Mesopotamia were the soapstone containers from the Kirman region in eastern Iran. The literary evidence further affirmed that Naram-Sin (c. 2254-2218 BCE), successor of Manishtushu and Sumerian ruler Gudea quarried stones in the Gulf (especially in Magan). The reference to Shalmaneser's battle counter to the Chaldean residents in Babylonia during the Assyrian reoccupation suggested the need to control and plunder the flourishing regions on the trade circuit (Kuhrt 1995).

Traded Goods Across Mesopotamia Regions

As mentioned earlier, being the land between two rivers Mesopotamia was rich in domestic harvest and animal produce. The fertile land and the flock of wild and domesticated animals ensured that the everyday essentials were readily available to the people locally. Various grains like barley and wheat along with other crops and fruits like legumes, date palms

and grapes constitutes the agrarian goods. The livestock rearing also supplemented fleece, animal hides and fur for making of clothing (Ellison 1981; Flannery 1965; Jones 1952).

A tablet from Umma also mentioned about wool trade between Apisal to Nippur, this is currently housed in Bibliothèque Nationale et Universitaire de Strasbourg in France ('AnOr 01, 058 Artifact Entry (Museum No.: BNUS 211; No. P101049)' 2001). Evidence of red-dyed and blue-purple dyed wool from Sippar dating back to the early Neo-Babylonian period hints at the advancement of technology ('BBS 036a Artifact Entry (No. P472680)' 2025). The abundance of mud and clay in the surroundings aided in the manufacturing of bricks and ceramics. Timber and stones were imported from the faraway lands for construction purposes (Algaze 2008; Nemet-Nejat 2002; Zarins 2008). Diverse kind of woods like boxwood, Acacia, ebony, wood from *mes* tree, etc. are frequently mentioned in the cuneiform tablets ('CDLI Literary 000332, Ex. 003 Artifact Entry (No. P346086)' 2024; 'CDLI Literary 000365, Ex. 023 Artifact Entry (No. P346139)' 2024; 'RIME 3/1.01.07, St D Witness Artifact Entry (No. P232277).' 2024).

The ample resources in the form of fowl, fish, various reed plants, wild animals and other products like wine (Laneri 2018), wool, textiles, and olive oil constituted the category of goods and exports (Algaze 2008; Kuhrt 1995). Allusion to fisheries inspector, granary supervisor and chief herdsmen is made in one of the tablets which suggests the presence of quality check of the products during Early Dynastic IIIb period ('RIME 1.09.09.01 (Reforms of Urukagina) Composite Artifact Entry (No. P431154)' 2024). The reeds were also utilized as fodder for animals and for making pens. The areas near the Euphrates river were also repositories of bitumen and asphalt which were actively involved in trade (Bertman 2003; Connan and Velde 2010; Lamberg-Karlovsky 1997).

There are also references to the bitumen trade in the cuneiform tablets. One such reference is retrieved from a tablet of Ur III period ('BM 018906 Artifact Entry (No. P318445)' 2023) which talks about bitumen being transported to Madaga. Another tablet ('PPAC 5, 0138 Artifact Entry (No. P315791)' 2024) in the British Museum referred to the trade of bitumen and reeds through water route. Studies show that the eight major crafts that were prevalent in Mesopotamia including weaving, leatherwork, pottery, stonecutting, metalwork, carpentry, reed work and jewellery production. Although some crafts like glassmaking, did not have much market value (Nemet-Nejat 2002; Mieroop 1997).

AN ACCOUNT OF MESOPOTAMIAN TRADE AND ITS LEGACY IN GLOBAL EXCHANGE

The long-distance trading relations that were established long before in the cradle of prehistory, got further strengthened with the intricate web of networks that had developed between the different regions (Reade 2008; Thornton 2013). Even with the rise and fall of the civilisations, trading on both land and sea flourished. These networks became denser and developed into some of the famous roads like the Silk Route, Spice Route, and Incense Road. Trade was experienced asymmetrically in diverse pockets of the Gulf depending on the goods consumed in each region. The diverse societies engaged in trade consumed a variety of goods, which changed over time. These structured changes were connected to the newly emerging socio-political dynamic, especially in the case of copper and grain (Edens 1992). The former

case could be explained in the context of southern Mesopotamia where imported copper became intrinsically linked to the agricultural production and consumption by elites. Many scholars have worked extensively on the trade routes and the trade goods exchanged between Mesopotamia and other regions including Meluhha, Magan and Dilmun during different periods (A. L. Oppenheim 1954; Leemans 1960, 1977).

The slowly progressing trade catapulted the rise of many economic and technological inventions and exchanges. Some of the major technological advancements include use of metals like copper and iron, manufacture of glass, brewing of beer, building techniques, and other improvements (Liverani 2005; Moorey 1999; Nemet-Nejat 2002). The archaeological remnants reflected the migration of intangible commodities and people, such as the craftsmen of the Indus Valley who brought knowledge of bead manufacturing to Mesopotamia (Kenoyer 1997; Peyronel 2015; Reade 1979). One innovation that surpassed all others and later became vital criteria to identify a civilisation was the development of writing which made it easy to record and transmit data. The data generally comprised of the loans, records of rations, partnership agreements, transactions, and instructions of different organisations like trade guilds for ownership and management purposes (Maiocchi 2019; Robinson 2019). Various evidence was reflective of the extent of the import-export trade, which reached its zenith under the Assyrians during second and first millennium (McBride 1977). The Mesopotamian currency was both tangible in the form of barley, tin, gold, silver, cattle and intangible, which constituted of exemptions from fines, taxes and loans with interest. However, the standard value in Mesopotamia, which mentioned in the various texts, was silver and barley (Foster 1977; Grosby 2020; Kamil 2020). Two terms constituent in the financial context that are recurrent in the narrative sources were *minas* and *shekels* which are weight metrological terms (McBride 1977; McCorriston 1997).

The corpus of literary evidence ranged from the documentation found in Ebla, legal system established by the rulers, inscriptions on seals and others. These sources were a repository of the substantial commerce-affiliated terminologies, which comprised of terms for merchants, trading expeditions, merchandise transporters as well as information regarding merchandise consignments, river-crossing tolls, weights and measures, transportation and custom fees. An evocative visualisation of the various merchants, traders, and their colonies provided a peek into the past trading practices (Steinkeller 2021). A legal system for trade of goods was instituted during the Ur III period. Seals of Early Dynastic I period with the inscriptions of the city names on them affirms the existence of inter-city trade in Mesopotamia. There was also reference of King Ilshuma (1932 BCE) from Assyria attracting traders to Ashur by providing privileges to them. Erishum (1939-1900 BCE), Ilshuma's heir gave tax exemptions to strengthen their position in the trade circuit. Later, during second millennium BCE, Assyrian merchant houses started to control trade in Assyria (Kuhrt, 1995). It can be said that the legacy of Mesopotamian trade left a deep imprint and its echoes were preserved in the later concentrated networks of trade.

CONCLUSION

The study of Sumerian, Akkadian, Babylonian, and Assyrian contributions indicates both continuity and change in Mesopotamian trading patterns. The evidences suggest that

Mesopotamian commerce networks were resilient and flexible, retaining some stability even during times of government upheaval. The organisation of trade, the flow of goods, and the functions of merchants, officials, and institutions within these systems are all directly revealed by cuneiform writings, including administrative tablets, legal texts, and commercial records. These writings attest to the fact that land-based and riverine channels constituted Mesopotamia's economic arteries, facilitating both local and long-distance trade with areas as far away as Anatolia, the Iranian plateau, the Levant, the Gulf, and the Indus Valley.

Furthermore, combining cuneiform data with previous scholarly interpretations enables a more nuanced picture of Mesopotamian trade as a sophisticated, institutionalised, and long-lasting process. These early economic institutions left a legacy that extended beyond Mesopotamia, influencing broader patterns of interregional interaction in the ancient Near East and contributing to the formation of organised trade throughout history. This research emphasises the importance of trade in shaping one of the world's earliest urban civilisations by placing Mesopotamian commerce within its larger social, political, and geographical setting.

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REFERENCES

Adams, Robert McC. 1973. *The Evolution of Urban Society: Early Mesopotamia and Prehispanic Mexico*. 6. print. The Lewis Henry Morgan Lectures 1965. Chicago, Ill: Aldine.

Alexander, Wayne, and William Violet. 2012. 'Trade and Traders of Mesopotamian Ur'. *ASBBS Proceedings* 19 (1).

Algaze, Guillermo. 2001. 'Initial Social Complexity in Southwestern Asia: The Mesopotamian Advantage'. *Current Anthropology* 42 (2): 199–233. https://doi.org/10.1086/320005.

———. 2008. *Ancient Mesopotamia at the Dawn of Civilization*. University of Chicago Press. https://doi.org/10.7208/chicago/9780226013787.001.0001.

Al-Mutawalli, Nawala A. 2018. 'An Introduction to the Foreign Trade of Mesopotamia In the Light of Cuneiform Documentation of the Third and Second Millennium BC.' *Al-Adab Journal*, no. 120 (December 2018): 91–104. https://doi.org/10.31973/aj.v1i120.305.

'AnOr 01, 058 Artifact Entry (Museum No.: BNUS 211; No. P101049)'. 2001. In *Cuneiform Digital Library Initiative*. https://cdli.ucla.edu/P242433.

'ARET 12, 0337 + Unp. Frag. Artifact Entry (No. P242433)'. 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.ucla.edu/P242433.

Barjamovic, Gojko, Thomas Chaney, Kerem Coşar, and Ali Hortaçsu. 2019. 'Trade, Merchants, and the Lost Cities of the Bronze Age'. *The Quarterly Journal of Economics* 134 (3): 1455–503. https://doi.org/10.1093/qje/qjz009.

'BBS 036a Artifact Entry (No. P472680)'. 2025. *Cuneiform Digital Library Initiative*, 2025. https://cdli.earth/P472680.

Begemann, F., A. Hauptmann, S. Schmitt-Strecker, and G. Weisgerber. 2010. 'Lead Isotope and Chemical Signature of Copper from Oman and Its Occurrence in Mesopotamia and Sites on the Arabian Gulf Coast'. *Arabian Archaeology and Epigraphy* 21 (2): 135–69. https://doi.org/10.1111/j.1600-0471.2010.00327.x.

Bertman, Stephen. 2003. *Handbook to Life in Ancient Mesopotamia*. Facts on File, Inc. https://doi.org/10.2307/4132170.

'BM 018906 Artifact Entry (No. P318445)'. 2023. In *Cuneiform Digital Library Initiative*. https://cdli.earth/P318445.

Bossuyt, Audrey, Laurence Broze, and Victor Ginsburgh. 2001. 'On Invisible Trade Relations between Mesopotamian Cities during the Third Millennium B.C.' *The Professional Geographer* 53 (3): 374–83. https://doi.org/10.1111/0033-0124.00291.

Breniquet, Catherine, and Cécile Michel. 2014. 'Wool Economy in the Ancient Near East'. In *Wool Economy in the Ancient Near East and the Aegean*, 17:1–11. Oxbow Books. https://doi.org/10.2307/j.ctvh1djjn.4.

Buren, E. Douglas Van. 1948. 'Fish-Offerings in Ancient Mesopotamia'. *Iraq* 10 (2): 101. https://doi.org/10.2307/4241682.

Butt, Arslan, Pakeeza Tabassum, and Farhat Saeed Imran. 2023. 'Exploring the Mesopotamian Trade (c.6000-539 Bce): Types, Organization, and Expansion'. *Palarch's Journal Of Archaeology Of Egypt/Egyptology* 20 (1): 241–61.

Carter, Robert. 2013. 'The Sumerians and the Gulf'. In *The Sumerian World*, edited by Harriet Crawford, 579–99. Routledge.

Caspers, E. C. L. During. 1990. ....'....And Multi-Coloured Birds of Meluhha'. *Proceedings of the Seminar for Arabian Studies* 20 (1990): 9–16.

CDLI contributors. 2025. 'RIME 2.01.01.12 Composite (P461938)'. *Cuneiform Digital Library Initiative*, 2025. https://cdli.earth/inscriptions/2227241.

'CDLI Literary 000332, Ex. 003 Artifact Entry (No. P346086)'. 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.ucla.edu/P346086.

'CDLI Literary 000365, Ex. 023 Artifact Entry (No. P346139)'. 2024. In *Cuneiform Digital Library Initiative*. https://cdli.earth/P346139.

'CDLI Literary 000369, Ex. 010 Artifact Entry (No. P346132).' 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.earth/P346132.

'CDLI Literary 000389, Ex. 002 Artifact Entry'. 2023. In *Cuneiform Digital Library Initiative*. https://cdli.earth/P346161.

Chau, My. 2008. 'The Cylindrical Warka Vase and Cylinder Seals: Repetition and Reference as Visual Strategies of Communication in the Ancient Near East'. *The Berkeley McNair Research Journal* 15 (2008): 1–18.

Chavalas, Mark W. 2016. 'Assyrian Empire'. In *The Encyclopedia of Empire*, 1–6. Wiley. https://doi.org/10.1002/9781118455074.wbeoe002.

Cheng, Jack. 2007. 'Self-Portraits of Objects'. In *Ancient Near Eastern Art in Context: Studies in Honor of Irene J. Winter by Her Students*, edited by Jack Cheng and Marian H. Feldman, 437–47. Brill.

Collon, Dominique. 2005. *First Impressions: Cylinder Seals in the Ancient Near East*. British Museum Press.

Connan, Jacques, Robert Carter, Harriet Crawford, Mark Tobey, Armelle Charrié-Duhaut, Dan Jarvie, Pierre Albrecht, and Kirsty Norman. 2005. 'A Comparative Geochemical Study of Bituminous Boat Remains from H3, As-Sabiyah (Kuwait), and RJ-2, Ra's al-Jinz (Oman)'. *Arabian Archaeology and Epigraphy* 16 (1): 21–66. https://doi.org/10.1111/j.1600-0471.2005.00041.x.

Connan, Jacques, and Thomas Van de Velde. 2010. 'An Overview of Bitumen Trade in the Near East from the Neolithic (c. 8000 BC) to the Early Islamic Period'. *Arabian Archaeology and Epigraphy* 21 (1): 1–19. https://doi.org/10.1111/j.1600-0471.2009.00321.x.

Crawford, Harriet. 2013. 'Trade in the Sumerian World'. In *The Sumerian World.*, edited by Harriet Crawford, 447–61. Routledge.

Edens, Christopher. 1992. 'Dynamics of Trade in the Ancient Mesopotamian "World System"'. *American Anthropologist* 94 (1): 118–39.

Elat, Moshe. 1978. 'The Economic Relations of the Neo-Assyrian Empire with Egypt'. *Journal of the American Oriental Society* 98 (1): 20–34.

Ellison, Rosemary. 1981. 'Diet in Mesopotamia: The Evidence of the Barley Ration Texts (c. 3000-1400 B.C.)'. *Iraq* 43 (1): 35. https://doi.org/10.2307/4200132.

Flannery, Kent V. 1965. 'The Ecology of Early Food Production in Mesopotamia'. *Science* 147 (3663): 1247–56. https://doi.org/10.1126/science.147.3663.1247.

Forbes, R. J. 1993. *STUDIES IN ANCIENT TECHNOLOGY*. 3rd edn. Vol. 3. E.J. Brill.

Foster, Benjamin R. 1977. 'Commercial Activity in Sargonic Mesopotamia'. *Iraq* 39 (1): 31. https://doi.org/10.2307/4200046.

Frahm, Ellery, and Joshua M. Feinberg. 2013. 'Empires and Resources: Central Anatolian Obsidian at Urkesh (Tell Mozan, Syria) during the Akkadian Period'. *Journal of Archaeological Science* 40 (2): 1122–35. https://doi.org/10.1016/j.jas.2012.07.019.

Francfort, H. P. 2019. 'The Grand Route of Khorasan (Great Khorasan Road) During the Third Millennium Bc and the "Dark Stone" Artefacts'. In *The Iranian Plateau during the Bronze Age: Development of Urbanisation, Production and Trade*, edited by Jan-Waalke Meyer, Emmanuelle Vila, Marjan Mashkour, Michèle Casanova, and Régis Vallet, 1:247–66. Maison de l'Orient et de la Méditerranée.

Frayne, Douglas. 2008. *Presargonic Period (2700-2350 BC)*. Vol. 1. University of Toronto Press.

Frenez, Dennys. 2019. 'Cross-Cultural Trade and Socio-Technical Developments In the Oman Peninsula during the Bronze Age, ca. 3200 to 1600 BC'. *OCNUS* 27 (2019): 7–47.

Galter, Hannes D. 2009. 'Looking down the Tigris: The Interrelations between Assyria and Babylonia'. In *The Babylonian World*, 1st published, edited by Gwendolyn Leick. Routledge. https://doi.org/10.4324/9780203946237.

Gensheimer, Thomas R. 1984. 'The Role of Shell In Mesopotamia: Evidence for Trade Exchange with Oman and The Indus Valley'. *Paleorient* 10 (1): 65–73.

Grosby, Steven. 2020. 'Borders and States'. In *A Companion to the Ancient Near East*, 225–41. Wiley. https://doi.org/10.1002/9781119362500.ch13.

Gruber, Jacob W. 1948. 'Irrigation and Land Use in Ancient Mesopotamia'. *Agricultural History* 22 (2): 69–77.

Hasanov, Ramil I. 2023. 'Historical Roots Of Economics: The Foundational Legacy Of Ancient Mesopotamia'. *Reconstructing the Past: Journal of Historical Studies* 1 (3): 56–68. https://doi.org/10.54414/EHZD2889.

Hnaihen, Kadim Hasson. 2021. 'River Transport in Mesopotamia (5900–539 BC)'. *Światowit*, no. 59 (June 2021): 141–51. https://doi.org/10.31338/0082-044X.swiatowit.59.8.

Hornell, James. 1941. 'Sea-Trade in Early Times'. *Antiquity* 15 (59): 233–56. https://doi.org/10.1017/S0003598X00015738.

'ITT 3, 05363 Artifact Entry (No. P111172).' 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.earth/P111172.

Jones, Tom B. 1952. 'Ancient Mesopotamian Agriculture'. *Agricultural History* 26 (2): 46–51.

Kamil, Ari Kh. 2020. 'Urbilum during the Ur III Period (2112-2004 BC)'. *Arbela Antiqua Proceedings of the International Conference Held in Erbil, Iraq.*, 2020, 109–14.

Kenoyer, Jonathan M. 1997. 'Trade and Technology of the Indus Valley: New Insights from Harappa, Pakistan'. *World Archaeology* 29 (2): 262–80. https://doi.org/10.1080/00438243.1997.9980377.

Kohl, Philip L. 1975. 'Carved Chlorite Vessels. A Trade in Finished Commodities in the Mid-Third Millennium'. *Expedition* 18 (1): 18–31.

Kolinski, Rafal. 2014. '20th Century BC in the Khabur Triangle Region and the Advent of the Old Assyrian Trade with Anatolia'. In *The Archaeology of Political Spaces*, 12:11–34. De Gruyter. https://doi.org/10.1515/9783110266405.11.

Kramer, Samuel Noah. 1963. *The Sumerians: Their History, Culture, and Character*. University of Chicago Press.

Kuhrt, Amélie. 1995. *The Ancient Near East, c. 3000-330 BC*. Vol. 2. Routledge.

Kuiper, Kathleen, ed. 2011. *Mesopotamia: The World's Earliest Civilization*. The Britannica Guide to Ancient Civilizations. New York, NY: Britannica Educational Publ. [u.a.].

Lafont, Bertrand. 2001. 'International Relations in the Ancient Near East: The Birth of a Complete Diplomatic System'. *Diplomacy & Statecraft* 12 (1): 39–60. https://doi.org/10.1080/09592290108406187.

Lamberg-Karlovsky, C. C. 1997. 'Our Past Matters: Materials and Industries of the Ancient Near East'. *Journal of the American Oriental Society* 117 (1): 87. https://doi.org/10.2307/605624.

Laneri, Nicola. 2018. 'The Impact of Wine Production in the Social Transformation of Northern Mesopotamian Societies during the Third and Second Millennia BCE'. *Die Welt Des Orients* 48 (2): 225–36.

Larsen, Mogens Trolle. 2015. *Ancient Kanesh: A Merchant Colony in Bronze Age Anatolia*. Cambridge University Press. https://doi.org/10.5209/GERI.60317.

Lassen, Agnete Wisti. 2010. 'The Trade in Wool in Old Assyrian Anatolia'. *Jaarbericht Ex Oriente Lux* 42 (2010): 159–79.

———. 2013. 'Technology and Palace Economy in Middle Bronze Age Anatolia: The Case of the Crescent Shaped Loom Weight'. In *Textile Production and Consumption in the Ancient Near East*, edited by M. L. Nosch, H. Koefoed, and E. Anderson Strand, 12:78–92. Oxbow Books.

Laursen, Steffen Terp. 2021. 'Dilmun Boats on Seals, Horned Figureheads, and the Serpent/Dragon Slaying Myth, c. 2050–1500 BC'. *Arabian Archaeology and Epigraphy* 32 (S1): 301–12. https://doi.org/10.1111/aae.12170.

Law, Randall William. 2011. *Inter-Regional Interaction and Urbanism in the Ancient Indus Valley: A Geologic Provenience Study of Harappa's Rock and Mineral Assemblage*. Kyoto,: Indus Project, Research Institute for Humanity and Nature.

Leemans, W. F. 1960. 'The Trade Relations of Babylonia and the Question of Relations With Egypt in the Old Babylonian Period'. *Journal of the Economic and Social History of the Orient* 3 (1): 21–37. https://doi.org/10.1163/156852060X00160.

———. 1968. 'Old Babylonian Letters and Economic History A Review Article with a Digression on Foreign Trade'. *Journal of the Economic and Social History of the Orient* 11 (2): 171. https://doi.org/10.2307/3596284.

———. 1977. 'The Importance of Trade. Some Introductory Remarks'. *Iraq* 39 (1): 1. https://doi.org/10.2307/4200042.

Leick, Gwendolyn. 2007. 'Introduction'. In *The Babylonian World*, edited by Gwendolyn Leick. Routledge.

Levey, Martin. 1959. 'The Refining of Gold in Ancient Mesopotamia'. *Chymia* 5 (January 1959): 31–36. https://doi.org/10.2307/27757174.

Liverani, Mario. 2005. 'Historical Overview'. In *A Companion to the Ancient Near East*, 1–19. Wiley. https://doi.org/10.1002/9780470997086.ch1.

Maiocchi, Massimo. 2019. 'Writing in Early Mesopotamia'. In *Beyond the Meme*, 395–424. University of Minnesota Press. https://doi.org/10.5749/j.ctvnp0krm.13.

Majidzadeh, Y. 1982. 'Lapis Lazuli and the Great Khorasan Road'. *Paléorient* 8 (1): 59–69.

McBride, W. Blan. 1977. 'Import-Export Business Operation in Early Mesopotamia'. *Business and Economic History* 6 (1977): 91–98.

McCorriston, Joy. 1997. 'Textile Extensification, Alienation, and Social Stratification in Ancient Mesopotamia'. *Current Anthropology* 38 (4): 517–35. https://doi.org/10.1086/204643.

McIntosh, Jane R. 2005. *Ancient Mesopotamia: New Perspectives*. ABC-CLIO.

McMahon, Augusta. 2020. 'From Sedentism to States, 10 000–3000 BCE'. In *A Companion to the Ancient Near East*, 27–43. Wiley. https://doi.org/10.1002/9781119362500.ch2.

Mieroop, Marc Van De. 1997. *The Ancient Mesopotamian City*. Oxford University PressOxford. https://doi.org/10.1093/oso/9780198150626.001.0001.

Moorey, P. R. S. 1999. *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*. Eisenbrauns.

Nardo, Don, and Robert B. Kebric. 2009. *Ancient Mesopotamia*. Greenhaven Publishing LLC.

Nemet-Nejat, Karen Rhea. 2002. *Daily Life in Ancient Mesopotamia*. Hendrickson Publishers.

Neyland, R. S. 1992. 'The Seagoing Vessels on Dilmun Seals'. In *Underwater Archaeology Proceedings from the Society for Historical Archaeology Conference, Kingston, Jamaica 1992*, edited by D. H. Keith and T. L. Carrell, 68–74. Society for Historical Archaeology.

Oguchi, Hiromichi. 1999. 'Trade Routes in the Old Assyrian Period'. *Al- Rafidan Journal of Western Asiatic Studies* 20 (1999): 85–106.

Oppenheim, A. L. 1954. 'The Seafaring Merchants of Ur'. *Journal of the American Oriental Society* 74 (1): 6–17. https://doi.org/10.2307/595475.

Oppenheim, A. Leo. 1977. *Ancient Mesopotamia: Portrait of a Dead Civilisation*. Edited by Erica Reiner. University of Chicago Press.

Oracc Etcsri. 2020. 'Electronic Text Corpus of Sumerian Royal Inscriptions'. *Https://Oracc.Museum.Upenn.Edu/Etcsri/Q001541*, 2020.

Özgüç, Tahsin. 1963. 'An Assyrian Trading Outpost'. *Scientific American* 208 (2): 96–108.

Penn Museum. n.d. 'Tablet CBS47'. *Https://Www.Penn.Museum/Collections/Object/330901*.

Peyronel, Luca. 2015. 'A Long-Barrel Carnelian Bead from Ebla. A New Evidence for Long-Distance Contacts between the Indus Valley and the Near East'. *Studia Eblaitica* 1 (2015): 217–20. https://doi.org/10.13173/STEBLA/2015/1/217.

Podany, Amanda H. 2010. *Brotherhood of Kings*. Oxford University Press.

———. 2012. *Brotherhood of Kings: How International Relations Shaped the Ancient Near East*. Oxford University Press.

Potts, D. T. 2009. 'Babylonian Sources Of Exotic Raw Materials'. In *The Babylonian World*, edited by Gwendolyn Leick. Rotledge. https://doi.org/10.4324/9780203946237.

Potts, T. F. 1989. 'Foreign Stone Vessels of the Late Third Millennium B.C. from Southern Mesopotamia: Their Origins and Mechanisms of Exchange'. *Iraq* 51 (1989): 123–64. https://doi.org/10.2307/4200300.

———. 1993. 'Patterns of Trade in Third-Millennium BC Mesopotamia and Iran'. *World Archaeology* 24 (3): 379–402.

‘PPAC 5, 0138 Artifact Entry (No. P315791)’. 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.earth/P315791.

Ratnagar, Shereen. 2004. *Trading Encounters : From the Euphrates to the Indus in the Bronze Age*. Oxford University Press.

Reade, Julian. 1979. *Early Etched Beads and the Indus-Mesopotamia Trade*. Edited by G. B. Morris. British Museum Occasional Paper, No. 2.

———. 2001. ‘Assyrian King-Lists, the Royal Tombs of Ur, and Indus Origins’. *Journal of Near Eastern Studies* 60 (1): 1–29. https://doi.org/10.1086/468883.

———. 2008. ‘The Indus-Mesopotamia Relationship Reconsidered’. In *Intercultural Relations Between South and Southwest Asia: Studies in Commemoration of E.C.L. During Caspers (1934-1996)*, edited by Eric Olijdam and Richard H. Spoor, 12–18. BAR International Series 1826, no. 1826. Archaeopress.

Richardson, Seth. 2012. ‘Early Mesopotamia: The Presumptive State’. *Past & Present* 215 (1): 3–49. https://doi.org/10.1093/pastj/gts009.

‘RIME 1.09.09.01 (Reforms of Urukagina) Composite Artifact Entry (No. P431154)’. 2024. *Cuneiform Digital Library Initiative*, 2024. https://cdli.earth/P431154.

‘RIME 3/1.01.07, St D Witness Artifact Entry (No. P232277).’ 2024. In *Cuneiform Digital Library Initiative*. https://cdli.earth/P232277.

Robinson, Andrew. 2019. ‘The Origins of Writing’. In *Communication in History: Stone Age Symbols to Social Media*, Seventh edition, edited by Paul Heyer and Peter Urquhart. Routledge, Taylor & Francis Group.

Saggs, H. W. F. 2000. *Babylonians*. University of California Press.

‘Sceau Cylindre’. n.d. *Louvre Collections*. https://collections.louvre.fr/en/ark:/53355/cl010147038.

Service, Elman Rogers. 1971. *Primitive Social Organization: An Evolutionary Perspective*. 2. ed. Studies in Anthropology 3. New York: Random House.

Steinkeller, Piotr. 2021. ‘International Trade in Greater Mesopotamia during Late Pre-Sargonic Times’. In *Merchants, Measures and Money. Understanding Technologies of Early Trade in a Comparative Perspective*, edited by Lorenz Rahmstorf, Gojko Barjamovic, and Nicola Ialongo, vol. 2. Wachholtz Verlag. https://doi.org/10.23797/9783529035418.

Stone, Elizabeth C. 1997. ‘City States and Their Centers: The Mesopotamian Example’. In *The Archaeology of City States: Cross-Cultural Approaches*, edited by Deborah L. Nichols and Thomas H. Charleton, 15–26. Smithsonian Institution Press.

Thornton, Christopher P. 2013. ‘Mesopotamia, Meluhha, and Those in Between’. In *The Sumerian World*, 600–619. Routledge.

‘UTI 4, 2896 Artifact Entry (No. P140915)’. 2024. In *Cuneiform Digital Library Initiative*. https://cdli.earth/P140915.

Veenhof, Klaas R. 2010. ‘Ancient Assur: The City, Its Traders, and Its Commercial Network’. *Journal of the Economic and Social History of the Orient* 53 (1–2): 39–82. https://doi.org/10.1163/002249910X12573963244205.

Veenhof, Klaas R., and Jesper Eidem. 2008. *Mesopotamia: The Old Assyrian Period*. Edited by Markus Wäfler. Academic Press Fribourg Vandenhoeck & Ruprecht Göttingen. https://doi.org/10.5167/uzh-151184.

Wang, Ziting. 2023. 'Intercultural Communication and Miscommunication: Egyptian Diplomacy in the New Kingdom Period'. PhD Thesis, University of Chicago.

Wilson, J. V. Kinnier. 1987. 'Fish Rations and the Indus Script: Some New Arguments in the Case for Accountancy'. *South Asian Studies* 3 (1): 41–46. https://doi.org/10.1080/02666030.1987.9628353.

Yoffee, Norman. 1995. 'Political Economy in Early Mesopotamian States'. *Annual Review of Anthropology* 24 (1995): 281–311.

———. 2007. *Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations*. Cambridge: Cambridge Univ. Press.

Yoffee, Norman, Roger Matthews, Bruce G. Trigger, Philip L. Kohl, David Webster, and Katharina Schreiber. 2005. 'Myths of the Archaic State: Evolution of the Earliest Cities, States, and Civilizations'. *Cambridge Archaeological Journal* 15 (2): 251–68. https://doi.org/10.1017/S0959774305000120.

Zarins, J. 2008. 'Magan Shipbuilders at the Ur III Lagash State Dockyards (2062-2025 BC).' In *Intercultural Relations between South and Southwest Asia: Studies in Commemoration of E.C.L. During Caspers (1934-1996)*, edited by Richard H. Spoor and Elisabeth C. L. During Caspers, 230–35. BAR International Series 1826. Archaeopress.

Zettler, Richard L. 2021. 'Woolley's Excavations at Ur: New Perspectives from Artifact Inventories, Field Records, and Archival Documentation'. In *Ur in the Twenty-First Century CE: Proceedings of the 62nd Rencontre Assyriologique Internationale at Philadelphia, July 11–15, 2016*, edited by Grant Frame, Joshua Jeffers, and Holly Pittman, 7–34. Penn State University Press. https://doi.org/doi:10.1515/9781646021512-005.