

## HISTORICAL ROOTS OF ECONOMICS: THE FOUNDATIONAL LEGACY OF ANCIENT MESOPOTAMIA

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**Abstract:** Economics, as a rigorous scientific discipline, is intrinsically devoted to the meticulous scrutiny of sophisticated processes that underlie production, resource management, and the intricate web of mechanisms governing them. For a comprehensive cognition of its historical lineage, it becomes imperative to delve into the various stages of civilization's inception and the nascent trajectories of economic systems. In this scholarly pursuit, the spotlight firmly rests on ancient Mesopotamia, hailed as the cradle of a major civilization and an indisputable cornerstone in the tapestry of economic history. Embedded within this academic exploration is an assiduous analysis of the economy's evolutionary odyssey through the prism of history, thus serving as a conduit for the preservation and transmission of the invaluable legacy borne by ancient Mesopotamia.

This interdisciplinary research endeavors to elucidate the historical foundations of economic thought, spanning from pre-historical epochs to the advent of the initial systematic civilization. The paramount significance of the Ancient Mesopotamian legacy within the context of economic science is a central thematic exploration. By methodically integrating historical analysis, archaeological investigations, comparative scrutiny, and a discerning critical perspective, this study seeks to comprehensively unveil the intricate evolution of economic concepts and practices across diverse temporal and geographical landscapes.

**Keywords:** *Economic History, Ancient Mesopotamia, Sumer, Economic Evolution, History of Civilization*

### INTRODUCTION

The study of economics, which encompasses the intricate dynamics of goods and services production, distribution, and consumption within societies, finds its roots in the ancient civilizations, notably Mesopotamia. The enduring impact of Mesopotamian economic innovations, such as the introduction of standardized measures, legal codes, and taxation systems, resonates throughout the evolution of economic thought and practices, shaping contemporary economic frameworks and methodologies.

The empirical literature on economic growth and development has transitioned from examining proximate determinants to exploring deeper, historically transmitted factors, including genetic, epigenetic, and cultural traits, and their potential direct or indirect impacts on contemporary income and productivity. The seminal works of Dosi & Nelson

(1994) and Spolaore & Wacziarg (2013) provide fundamental conceptual foundations for understanding the principles of economic evolution and development. Nunn (2020) conducts a comprehensive review of recent research that converges at the intersection of history, development, and culture, with the overarching objective of unraveling the intricate interplay of cultural factors in shaping the trajectory of economic development.

Ancient Mesopotamia holds the distinction of being acknowledged as the cradle of civilization, as it was in this geographical region that the Sumerians initially established the majority of the essential pillars underpinning contemporary human existence. This assertion finds resonance in the work of historian Samuel Noah Kramer, who, in his renowned volume delineating the origins of humanity across 39 meticulously delineated chapters, unequivocally designates Sumer as the point of origin for recorded history [Kramer (1981)]. Within the context of Kramer's research, notable subjects such as the inaugural tax system [Kramer (1981): 45-51], agrarian domains [(Kramer (1981): 65-70)], and the rudiments of labor concepts [Kramer (1981): 111-116] are examined, albeit with a significant degree of attention across scholarly circles. This collective analysis substantiates a distinctive proposition positing that the economic framework took shape within the ancient expanse of Mesopotamia. Civilization's genesis is intricately intertwined with its economic underpinnings, as the material realm finds its very essence in the economic scaffolding. From this standpoint, the historical commencement with Sumer also extends to the economic bedrock; the inception of history itself is contingent upon the establishment of foundational economic relations, a premise pivotal for the advancement of humanity. Absent the emergence of intricate systems for production, trade, and distribution, the evolution of cities and stable cultural constructs would have remained implausible.

The monumental Neolithic revolution stands as the paramount catalyst for the initial ignition of civilization's spark. Unfolding approximately 12,000 years ago, this revolutionary transition ushered humanity away from a nomadic hunter-gatherer lifestyle toward a sedentary agrarian society. Within this transformative process, a surge in population transpired, giving rise to permanent settlements. Indeed, the Neolithic revolution, at its core, marked the foremost economic endeavor, endowing humans with the mastery of production, the accumulation of surplus resources, and the intricate realm of trade. These consequential shifts and pioneering adaptations are recognized as the inaugural phase of economic evolution [Childe (2016)]. North & Thomas (1977) put forth a new interpretation of the origins of agriculture in human prehistory by blending insights from anthropological and archaeological sources with a contemporary economic model centered around the theory of property rights. The inaugural economic transformation catalyzed by the Neolithic revolution precipitated the rise of the earliest civilization within the historical milieu of ancient Mesopotamia

### **Economy Begins At Sumer**

The exact dates and factors that led to the Sumerians' migration to Mesopotamia remain uncertain; however, what remains clear is that Sumer played a foundational role in shaping the economic landscape. The prehistoric era in this region is shrouded in limited historical records, with our understanding predominantly derived from depictions,

engravings, small sculptures, and artifacts bearing unique symbols that have been unearthed and analyzed by archaeologists and anthropologists. The acquisition of knowledge concerning political and economic history was greatly facilitated by the advent of writing, widely regarded as one of humanity's most profound inventions. The evolution of early economic systems can be comprehensively understood through the prism of Sumerian society. This ancient civilization stands as a prototype demonstrating the transition from uncomplicated exchange of goods to the intricate workings of market-driven economies.

Towards the end of the fourth millennium, enduring trade patterns had spurred noteworthy population expansion in Mesopotamia's southern alluvial lowlands, prompting distinctive socio-economic innovations within its urbanizing polities. Notably, advanced labor organization and sophisticated record-keeping systems emerged, contributing significantly to the premature formation of complex city-states in southern Mesopotamia, differentiating it from neighboring regions [Algaze (2005)]. Examining historical contexts unveils the intrinsic link between several seminal innovations and the economic necessities that drove them. The establishment of agricultural and animal husbandry systems orchestrated a gradual shift towards sedentary societal structures, engendering a fertile environment for the accrual of economic capital. This amelioration of living standards among settled communities concurrently acted as a catalyst for the flourishing of intellectual and artistic pursuits. Evidently, during the temporal expanse encompassing approximately 3500 to 3000 B.C., the Sumerian civilization ushered in three momentous breakthroughs - namely, the mastery of bronze metallurgy, the advent of written communication, and the introduction of the wheel - each of which wielded a transformative influence, sculpting the contours of economic, technological, and societal landscapes.

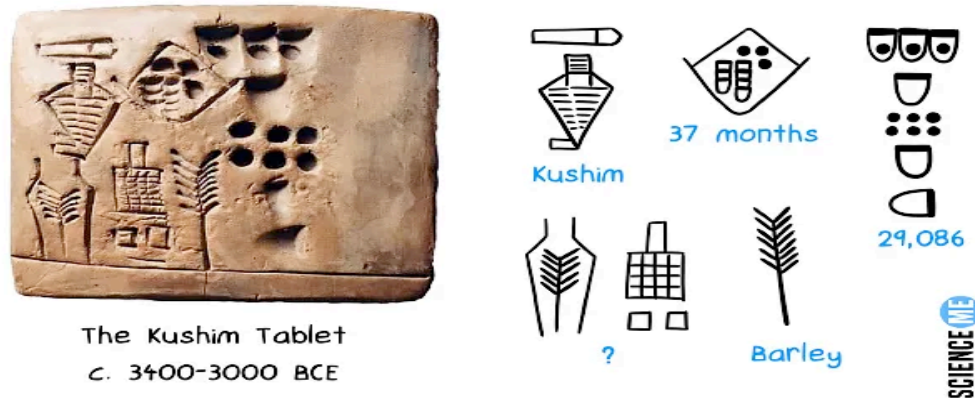
G. Algaze (2008) categorized the economic advancement of the ancient Sumerian era into three principal phases:

- The initial phase of economic growth in southern Mesopotamia occurred during the late fifth and early fourth millennia, leading to diverse specialization driven by resource endowments and inter-polity trade, exploiting differing economic assets.
- The second phase, commencing around the mid-fourth millennium, entailed competitive emulation among alluvial centers, facilitating the dissemination of technologies and practices and prompting a reduction in regional specialization as polities developed indigenous productive capacities and embraced strategies of import substitution.
- The third stage, unfolding in the latter part of the fourth millennium, witnessed heightened rivalry among comparable alluvial polities, resulting in expanded external trade and a concentrated effort on supplanting foreign commodities through sustained import-substitution mechanisms.

The pioneering civilization of Ancient Sumer likely initiated the practice of alloying tin with copper, giving rise to bronze, an alloy characterized by enhanced hardness and durability compared to its copper precursor, thus rendering bronze a superior material for the production of tools and weaponry [(Fokkens & Harding, 2013)]. Bronze held

economic importance by fostering specialized craftsmanship, stimulating trade, and driving resource-based economies in ancient civilizations due to its enhanced properties compared to other available materials.

The Sumerians' pioneering discovery of writing marked a significant human innovation, initiating the practice of transmitting historical narratives to succeeding generations. The earliest and most detailed Mesopotamian narration regarding the inception of writing is encapsulated within the Sumerian tale "Enmerkar and the Lord of Aratta," situated within a narrative cycle that revolves around the competition between the southern Mesopotamian city-state of Uruk and the distant, legendary city of Aratta [(Woods, Emberling & Teeter, 2011): 44]. The invention of writing by the Sumerians held noteworthy economic importance by enabling the establishment of organized administrative and trade frameworks, facilitating accurate recording of transactions and resource management, thereby enhancing accountability, fostering knowledge accumulation, and promoting the emergence of specialized vocations, all of which collectively contributed to substantial economic development. The crucial role of writing in ancient economies mirrors the contemporary reliance on computers, as both enable intricate processes, and imagining an economy without writing is akin to envisioning the modern economy without the functionality and efficiency computers provide. It is possible to show this in an ancient example. The Proto-cuneiform Kushim's tablet from Uruk, dating around 3000 BCE, offers insight into ancient economic practices by presenting a calculation detailing the requisite quantities of ingredients essential for producing dry cereal goods and beer [Renn (2019)].



**Figure 1.** The earliest attestation of written language is conjectured to manifest in an archaic transactional acknowledgement: a quantity of 29,086 measures of barley was received over a span of 37 months, authenticated with the signature of Kushim.

**Source:** <https://www.scienceme.com/the-origins-of-language>

The oldest unearthed wheel, dating to around 3500 BC in Mesopotamia, coincided with an era when human societies had already adopted agricultural cultivation, animal domestication, and demonstrated signs of social structure [(Ancient Origins, 2014)]. The wheel's economic importance in Mesopotamia stemmed from its ability to streamline transportation, promote trade, and improve agricultural efficiency, leading to notable advancements in the region's economic development.

The Sumerians exhibited a high degree of engagement in expansive trade, thereby showcasing the sophistication of their economic system, not only within their own domains but also in their interactions with neighboring regions. Their trade networks reached far-flung destinations, including Anatolia, Iran, Azerbaijan, Arabia, and even the Indus Valley, underscoring the remarkable extent of their commercial activities. The key commodities that formed the bedrock of their trade activities included essential goods such as grain, textiles, pottery, and metals, as well as luxury items such as gold, and ivory. This dynamic exchange of goods not only met essential needs but also catered to the desires for opulent items, highlighting the multifaceted nature of their trade. One of the pivotal advancements in their trade practices was the development of a standardized system of weights and measures, with the shekel emerging as a prominent unit of measurement. This innovation served as a catalyst for trade facilitation by providing a common metric for transactions. Moreover, it laid the groundwork for the emergence of a rudimentary form of currency. This crucial development not only streamlined the exchange of goods but also fostered economic stability and growth within these ancient civilizations. In essence, the Sumerians and Mesopotamians were trailblazers in the realm of trade. Their engagement in commerce, marked by its vast geographical reach, the diversity of goods exchanged, and the introduction of standardized trade practices, played a pivotal role in shaping economic systems during their era [Smith, (2008): 7]. These endeavors highlight the remarkable contributions of these ancient civilizations to the history of trade and commerce, serving as a testament to the early origins of economic sophistication.

An integral cornerstone in the trajectory of economic evolution rested upon the establishment of a monetary system. As production processes began to shape systems of exchange, the pivotal role of money as the primary medium of transaction became evident. The foundational concept of modern commercial money used in our civilization was first developed by the temples and policies of Sumer in ancient times [(Hudson, 2004) : 99]. Barley and silver stood as the prevalent commodities employed as money within the Ur III economy, although occasional utilization of other items like wool, dates, and oil occurred; in a commodity money framework like this, value or price was delineated through the establishment of ratios between the quantities of different commodities, constituting relative prices [Cripps (2019): 53-76]. As trade flourished between cities of Sumer, the practice of barter emerged as the predominant means of establishing economic interactions, wherein the commodities themselves served as the medium of exchange; this phenomenon extended progressively beyond the confines of Mesopotamia, exemplified by the transportation of Mesopotamian goods like wool, hides, and oil to destinations such as Magan (modern-day Oman), where they were traded for copper [Jenks (2018): 95]. The expansion of exchange networks prompted the creation of standardized money as a means to address the limitations of barter systems, while the idea of a universally profitable single currency arose as a potential strategy to enhance trade efficiency and overall economic stability.

The confluence of state formation and economic interactions gave birth to a distinctive model of a class-based society. In ancient Mesopotamia, two predominant economic forces held sway: the monarchy and the temple. The societal strata of this epoch exhibited a discernible stratification into six distinct segments:



- The monarch and his retinue of ministers
- The priestly class
- Bureaucratic functionaries
- Affluent merchants
- Independent urban dwellers and agrarian laborers
- Enslaved individuals.

The monarch wielded unequivocal authority encompassing both political and economic realms. The priestly echelon commanded a substantial portion of land resources, which were subsequently leased to agrarian laborers, entailing a portion of their crop yields as compensation [Hunt (2009): 40]. This arrangement engendered a mounting competition between the priestly and regal factions. Further dynamics were introduced into the social framework as captives from military engagements and indigent debtors were coerced into servitude.

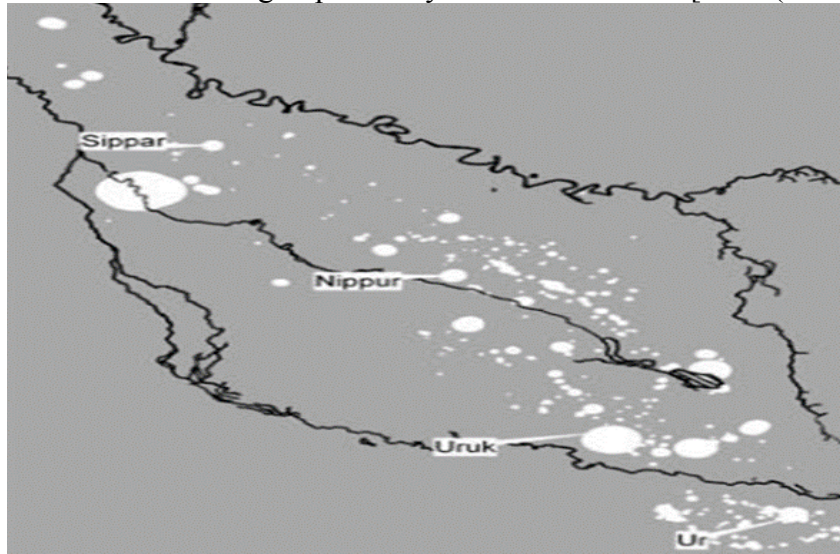
### **Economic Landscape in Ancient Mesopotamia**

Understanding the economic mechanisms and institutions that structured ancient Mesopotamia relies on a corpus of approximately 200,000 documented legal and administrative records, letters, and compilations of laws. Spanning from as early as 3200 BC to the Hellenistic and Arsacid eras of the third century BC and beyond, these sources form the foundational basis of knowledge. Furthermore, insights into the economic realities of ancient Mesopotamia are enriched by archaeological artifacts that provide avenues for reconstructing its material culture [Renger (2007): 187-197]

Agriculture serves as the foundational underpinning of the economy and originated during the shift towards settled lifestyles. Notably, it was agriculture that gave rise to the initial civilization in ancient Mesopotamia. Agriculture was the cornerstone of economic prosperity, driven by fertile soils nourished by the Tigris and Euphrates rivers, complemented by advanced irrigation systems. This synergy facilitated the cultivation of vital crops like barley, wheat, and dates, establishing the region as an agricultural powerhouse. The pivotal moment arrived with the introduction of the plow and draft animals, catapulting agricultural productivity, leading to a surplus of food, and fostering urbanization and labor specialization, all of which laid the foundations for intricate economic systems. This interplay between agricultural innovation and resource allocation merits rigorous scholarly investigation, shedding light on the enduring impact of their economic practices across history.

The agricultural framework pioneered by the Sumerians was subsequently transmitted to successive societies. The progression of the economy paved the way for the formation of proficient technological specialists across a spectrum of disciplines. These areas include but are not limited to issues such as productivity, engineering, architecture, power dynamics, economic structures, scientific paradigms, and intricacies of complexity that are emblematic of our era. At the heart of the prevailing social and economic structure within most villages lay the crucial practice of primary agricultural production. This fundamental undertaking not only provided the basis for their sustenance but also played a defining role in shaping their social interactions and economic arrangements. In specific cases, villages arranged linearly along riverbanks

managed to secure water access without relying on communal organizational structures. Conversely, settlements that sourced water through direct offshoots from major watercourses exhibited a less pronounced need for interdependence. However, villages positioned at the lower echelons of intricate canal systems, subject to meticulous oversight, intricately coordinated their activities in close collaboration with state authorities [Richardson (2007): 13-38]. The monument known as the "Stele of the Vultures," commissioned by Eanatum, the ruler of Lagash, was erected precisely along the demarcation separating the irrigated agricultural land [Winter (1985)]. The "h̄ amqum" valley stands as a crucial domain for settled communities and the royal palace, offering a prime setting for deliberate agricultural endeavors. Along the riverbanks, historical terraces known as "upa s̄ lûm" in Akkadian were employed for both pastoral activities and intermittent cultivation, with abandoned river meanders and stagnant waters sometimes utilized for fish farming in proximity to cultivable areas [Mori (2007): 41].



**Figure 2.** Ancient Mesopotamia in the 3rd Millennium B.C. White areas represent main productive zones.

**Source:** Book - The Babylonian World Edited by Gwendolyn Leick, Routledge, 2007.

The prevailing economic structure in Mesopotamia during the latter part of the fourth and the third millennia was characterized by the dominance of the oikos economy. The Oikos economy (OE), initially conceptualized by Rodbertus and later expounded upon by M. Weber, embodies an autonomous household economy where internal production sustains most consumables [Renger (2006)]. A defining characteristic of the oikos economy is its redistributive mode of production, in which the products of collective labor, spanning agricultural and non-agricultural sectors, are acquired by a central authority, typically the ruler, and subsequently apportioned among the producers, encompassing the entire population of the state, thus establishing what is referred to as a redistributive oikos economy. Commodities produced for local consumption and seen as essential held noteworthy strategic significance in the view of the ancient Mesopotamians. During the early second millennium, the tributary economy emerged due

to a confluence of factors including tribal migrations, Elamite military conflicts, political rivalries, strained oikos systems, and environmental challenges in southern Babylonia. As a consequence, the dominance of the household-oriented oikos system from the third millennium waned, leading to a reconfiguration where a significant portion of economic activities shifted from institutional households to individual small-scale farming and entrepreneurial endeavors, encompassing cereal production, date palm cultivation, animal husbandry, and resource exploration [Render (2007): 187-197]. The prospects of a notable market exchange in ancient Mesopotamia entail investigations into institutionalized market configurations, participant demographics, supply origins, and the role of subsistence methods, with the shift from a redistributive era to subsistence farming constraining surplus and emphasizing self-sufficiency and limited external trade as the prevailing economic features of the time. The ancient Mesopotamia serves as a vast repository of insights into the economic operations of past civilizations. This dataset encompasses core economic pursuits like agriculture, animal husbandry, and skilled crafts, as well as intricate elements such as barter, trade transactions, and varied exchange mechanisms. Furthermore, it illuminates the distribution of essential resources vital for sustaining life [Renger (1994): 157-208].

Agricultural Production	Livestock	Main Export Materials	Main Import Materials	Harmful aspects to the economy
Barley	Cattle	Textile	Gold	Wars
Wheat	Sheep	Wool	Silver	Instability
Legumes	Goat	Oil	Copper	Tribute
Sesame	Camel	Craftsmanship	Wood	Droughts
Vegetables	Donkey	Wheat	Spices	Pestilence
Fruits	Pig	Barley	Gemstones	Locusts

**Figure 3.** A classic economic indicator from ancient Mesopotamia.

**Source:** Author

During the Old Babylonian era, notable economic institutions emerged, such as partitive inheritance dividing paternal estates and the role of entrepreneurs in managing outsourced economic activities. Additionally, the *ilkum* system required individuals to fulfill various duties, offering rations or subsistence fields in return. The *ilkum* institution referred to a system where individuals were obliged to undertake various civic duties like military service, participation in public projects, or agricultural labor. In return for their efforts, they received rations or subsistence fields provided by the state or local authorities. Within the provincial administration of Larsa during Hammurapi's reign, this institution assumed a crucial function in coordinating labor and upholding fundamental societal functions [Ishikida (1999)]. Legal codes in ancient civilizations were a comprehensive system of rules and regulations governing economic activity. Economic transactions were codified, rules for trade, debt, and property rights were established, and



a framework for resolving disputes and promoting economic stability was provided. These codes were essential for the development of complex economic systems in ancient civilizations and had a significant impact on the development of economic thought and practice.

Cereal production played a vital role in maintaining centralized authority within an economy characterized by redistributive practices. The official calendar was inaugurated with the period spanning from March to April, aligning with the culmination of the harvest season. However, the most significant agricultural cycle, which revolved around the cultivation of barley, was set in motion by the initial groundwork of fields to be sown at the commencement of the autumn season. Sesame was grown in the middle Euphrates valley to produce a stable vegetable oil suitable for storage and distribution, given the region's unsuitability for olive tree cultivation, unlike the well-established practice in the Mediterranean area. Continuous cultivation of sesame has been a historical hallmark in the middle Euphrates Valley. In contrast, linseed, despite its oil-producing nature, seems to have predominantly served the purpose of textile production in the same region [Riehl (2012)]. In the endeavor to ensure sustained productivity, the implementation of intricate and advanced water-management mechanisms emerged as a necessity. These encompassed the establishment of intricate channels, retention reservoirs, and storage facilities, accompanied by the precise distribution of water to individual parcels of cereal fields. This strategic approach emphasized the pivotal significance of hydrological engineering in upholding agricultural output within this context. Mesopotamia encountered unfavorable shifts in environmental conditions, including heightened temperatures and decreased precipitation, leading to the emergence of steppe areas. This compelled a transition from conventional hoe-based agriculture to sophisticated irrigation systems, characterized by intricate water management infrastructure, collaborative communal labor, and seasonal irrigation practices, evident from the times of the Ubaid and Uruk cultures onward. The irrigation system in Mesopotamia underwent intricate development, encompassing communal labor, cyclical practices, and sophisticated water management structures to address changing climatic conditions and ensure continuous agricultural output [Hruska (2007): 54-66].

Ancient Mesopotamia placed substantial emphasis on the domains of wool, textile craftsmanship, and clothing. In recent times, interdisciplinary inquiries have embarked upon the task of elucidating the intricate tapestry of economic and cultural ramifications intertwined with the production and utilization of woolen textiles and textile manufacturing. These endeavors are gradually unraveling a comprehensive panorama of the profound influence exerted by these textile-related facets on the formative societies of the ancient world [Cecile & Catherine (2014)].

Entrepreneurship held a crucial position within the economic framework of ancient Mesopotamia, encompassing a broad spectrum of activities including trade, resource administration, craft production, the formulation of commercial strategies, and the facilitation of economic interactions both within the region and extending beyond its geographical boundaries. In Assyriology, the term "entrepreneur" is now broadly applied to include Assyrian and Babylonian "merchants" (tamkarum) from the early second millennium BC to the Egibi and Murashu families in Babylonia during the seventh to fifth centuries BC, who introduced novel commercial strategies to manage estates and

provision resources for palaces and military endeavors, initially aiming to create an export surplus of labor-intensive goods to obtain the stone, metal, and other raw materials that were lacking in southern Mesopotamia [Landes, Mokyr & Baumol (2010): 9].

The application of Polanyi's theory to ancient Mesopotamia introduces notions of non-market trade, centralized trade administration, and the significance of trade centers, accentuating diverse economic models encompassing reciprocity, redistribution, and market exchange, all while emphasizing the interweaving of economic activities within social structures. Furthermore, it introduces the concept of a 'palace economy,' characterizing societies organized around institutional households within autocratic-monarchic states, unveiling varying levels of reliance on these centralized entities [Renger (2007): 187-197]

The economic framework of ancient Mesopotamia centered on agrarian activities supplemented by integrated animal husbandry, while secondary emphasis was placed on manufacturing and craft production. To compensate for the inherent scarcity of local resources, the acquisition of essential materials vital for the overall societal functioning necessitated extensive long-range trade interactions with external territories. This encompassed the acquisition of resources such as tin and copper, essential for bronze production, as well as iron, gold, and silver used for esteemed articles, payment, and exchange due to the limited availability of these resources within the Mesopotamian region. The attainment of a harmonious dietary balance was contingent upon the inclusion of cultivated crops and products derived from animal husbandry, as well as the establishment of equilibrium between the practices of cultivation and animal husbandry [Adams (1974): 1-6].

Ancient Mesopotamia is primarily associated with four major civilizations: the Sumerians, Akkadians, Babylonians, and Assyrians. The political and economic influence wielded by these entities has left a profound impact on human history. The Neo-Babylonian Empire, reigning from 626 BC to 539 BC, is widely accepted as the last ancient Mesopotamian state. Its eventual conquest by the Achaemenid Empire marked the end of this era, resulting in the decline of the established political and economic structure in the region.

The economic practices of ancient Mesopotamia provided a crucial blueprint for the evolution of market economies in later centuries. Their emphasis on regulating trade, protecting property rights, and promoting fairness in economic transactions established a framework that contributed to the stability and growth of markets. This legacy endures in contemporary economic systems, where regulatory bodies, legal frameworks, and ethical standards continue to play vital roles. As societies globally adapt and modernize, the enduring influence of Mesopotamian economic principles remains evident, underlining the significance of these ancient practices in shaping the economic landscape of today's world.

## **CONCLUSION**

Embarking on a thorough and comprehensive journey into the trajectory of human economic evolution, we can see intricately woven within the fabric of civilization history. By meticulously delving into the dynamics of the ancient Sumerians and Mesopotamia, it

is unequivocally evident that their profound contributions have been indelibly etched into the annals of contemporary economics. The economic systems of Sumer and ancient Mesopotamia laid the fundamental groundwork for the development of modern economic principles, offering invaluable insights into the organization of trade, governance, and economic activities that have enduring relevance in today's economic landscape. The innovative strategies deftly employed in resource management and the intricate scaffolding of economic structures resonate vibrantly in the ongoing discourse of modern economics. Through rigorous research and analysis, this study unequivocally underscores the pivotal role of the ancient Mesopotamian legacy in laying the very bedrock of economic principles that continue to shape our world. Ancient Mesopotamia's economic innovations, such as trade, currency, standardized measures and taxation systems, significantly influenced subsequent civilizations, providing a foundation for the development of market economies with enduring global implications. As we navigate the intricate currents of economic thought, the ancient echoes of Mesopotamian ingenuity serve as a guiding beacon, reminding us of the enduring significance of their legacy in sculpting the contours of our economic understanding and shaping the path forward.

#### BIBLIOGRAPHY:

- Adams, R. M. (1974). Historic patterns of Mesopotamian irrigation agriculture. *Irrigation's impact on society*, Editors Theodore E. Downing and Mcguire Gibson. Tucson, The University of Arizona Press, pp. 1-6
- Algaze, G. (2005). The Sumerian Takeoff. *Structure and Dynamics*, 1(1). <http://dx.doi.org/10.5070/SD911003264> <https://escholarship.org/uc/item/76r673km> (Accessed September 5, 2023)
- Algaze, G. (2008). Ancient Mesopotamia at the Dawn of Civilization. The Evolution of an Urban Landscape. Chicago: The University of Chicago Press, 248 pages
- Bancroft-Hunt, N. (2009). *Living In Ancient Mesopotamia*. New-York, Chelsea House, Thalamus Publishing, 96 pages
- Cecile, M. & Catherine, B. (2014). *Wool Economy in the Ancient Near East*. Casemate, UK: Oxbow Books, 400 pages
- Childe, V. G. (2016). *What Happened in History*. Delhi, Aakar Books, 288 pages
- Cripps, E. L. (2019). The Structure of Prices in the Ur III Economy: Cults and Prices at the Collapse of the Ur III State. *Journal of Cuneiform Studies*, 71(1), 53-76. DOI: 10.4337/9781843769842.00010
- Dosi, G., & Nelson, R.R. (1994). An Introduction to Evolutionary Theories in Economics. *J Evol Econ* 4:153 – 172 [https://yildizoglu.fr/moddyn2/articles/nelson\\_dosi\\_evol\\_economics\\_JEE1994.pdf?fbclid=IwAR0tPisuf3e5gX5T8Mjc49iSVzGYOWBQxINfaeQfXYKREU-Ok0w\\_mM0LJU](https://yildizoglu.fr/moddyn2/articles/nelson_dosi_evol_economics_JEE1994.pdf?fbclid=IwAR0tPisuf3e5gX5T8Mjc49iSVzGYOWBQxINfaeQfXYKREU-Ok0w_mM0LJU)
- Fokkens, Harry, and Anthony Harding (eds), *The Oxford Handbook of the European Bronze Age* (2013; online edn, Oxford Academic, 5 Sept. 2013), <https://doi.org/10.1093/oxfordhb/9780199572861.001.0001> (Accessed 6 Sept. 2023)
- Hruska, B. (2007). Agricultural techniques. *The Babylonian World*. Edited by Gwendolyn Leick, New York and London, Routledge, pp. 54-66.

- Hudson, M. (2004). The Archaeology of Money Debt Versus Barter Series of Money's Origins. *Credit and State Theories of Money*. Edited by L. Randall Wray, Chapter 5, Edward Elgar Publishing, pp. 99-127
- Ishikida, M. Y. (1999). The ilkum institution in the provincial administration of Larsa during the reign of Hammurapi (1792-1750 BC). *Orient*, Vol. XXXIV, pp. 61-88
- Jenks, J. (2018). Chapters on the History of Money: Chapter I., *Financial Analysts Journal*, 1964, 20:2, p. 95-99. <https://doi.org/10.2469/faj.v20.n2.95>
- Kramer, N. S. (1981). *History Begins at Sumer: Thirty-Nine Firsts in Recorded History*. Third revised edition, Philadelphia, University of Pennsylvania Press, 416 pages
- Landes, D., Mokyr, J. & Baumol, W. (2010). *The Invention of Enterprise: Entrepreneurship From Ancient Mesopotamia To Modern Time*. Princeton University Press, 584 pages
- Mori, L. (2007). Land And Land Use The middle Euphrates valley. *The Babylonian World*. Edited By Gwendolyn Leick, New-York and London, Routledge, pp. 39-53
- North, D. C., & Thomas, R. P. (1977). The First Economic Revolution. *The Economic History Review*, 30(2), p.229–241. <https://doi.org/10.2307/2595144>
- Nunn, N. (2020). The historical roots of economic development. *Science*, 367(6485), eaaz9986. [https://www.science.org/doi/10.1126/science.aaz9986?fbclid=IwAR1QXN\\_Ynxfa\\_33MjZLjq\\_mcyfhxjkRG1nIn8-6OuxFo5Yc-rhIT12ZNrgkA](https://www.science.org/doi/10.1126/science.aaz9986?fbclid=IwAR1QXN_Ynxfa_33MjZLjq_mcyfhxjkRG1nIn8-6OuxFo5Yc-rhIT12ZNrgkA)
- Renger, J. (1994). On Economic Structures in Ancient Mesopotamia: Part One. *Orientalia, Nova Series*, Vol. 63, No. 3, pp. 157-208.
- Renger, J. (2006). “Oikos economy”, in: Brill’s New Pauly, Antiquity volumes. Edited by: Hubert Cancik and , Helmuth Schneider, English Edition by: Christine F. Salazar, Classical Tradition volumes edited by: Manfred Landfester, English Edition by: Francis G. Gentry. [http://dx.doi.org/10.1163/1574-9347\\_bnp\\_e829070](http://dx.doi.org/10.1163/1574-9347_bnp_e829070)
- Renger, J. (2007). Economy of ancient Mesopotamia: a general outline. *The Babylonian World*. Edited By Gwendolyn Leick, New-York and London, Routledge, pp.187-197
- Renn, J. (2019). Learning from Kushim About the Origins of Writing and Farming. *Max Planck Research Library for the History and Development of Knowledge, Proceedings 11*. <https://www.mprl-series.mpg.de/proceedings/11/> (Accessed September 6, 2023)
- Richardson, S. (2007). The World Of Babylonian Countrysides. *The Babylonian World*. Edited By Gwendolyn Leick, New-York and London, Routledge, pp.13-38
- Riehl, S. Et al. (2012). Mid-To-Late Holocene Agricultural System Transformations in the Northern Fertile Crescent: A Review of the Archaeobotanical, Geoarchaeological, and Philological Evidence. *Geophysical Monograph Series*, 198:115-136, <https://doi.org/10.1029/2012GM001221>
- [Smith, R. L. \(2008\). Premodern trade in world history. Routledge, p.7.](#)
- Spolaore, E., & Wacziarg, R. (2013). How Deep Are the Roots of Economic Development? *Journal of Economic Literature*, 51(2), 325–369. <http://www.jstor.org/stable/23644748>

- Winter, I. J. (1985). After the Battle Is Over: The “Stele of the Vultures” and the Beginning of Historical Narrative in the Art of the Ancient Near East. *Studies in the History of Art*, 16, pp, 11–32
- Woods, C., Emberling, G. & Teeter, E. (2010). *Visible Language*. Inventions of Writing In The Ancient Middle East And Beyond. Chicago, Published by The Oriental Institute of the University of Chicago, 240 pages
- Wu Mingren (2014). The revolutionary invention of the wheel. *Ancient Origins: Reconstrating the Story of Humanity’s Past* <https://www.ancient-origins.net/ancient-technology/revolutionary-invention-wheel-001713> (Accessed September 5, 2023)