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Phoenicians: The Quickening Of Western Civilization

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Editor's Note: This article builds upon a preliminary version sketched out last year and published in the journal on Pages 25 to 40, issue No. 78, Spring 2018. It represents in our view an important addition to scholarship on a significant and foundational topic, one central to the development of Western Civilization and the comparative study of civilizations.

A relatively recent field of inquiry, Phoenician and Punic studies covers much the same time and geographical areas as Archaic, Classical, and Hellenistic Greek and Roman history.¹ Adjacent fields include economic, business, writing, agricultural, nautical, and biblical history. Scholarship today is moving beyond the Hellenocentric and Romanocentric viewpoints and the record of Phoenician history is increasingly seen as critical for understanding European origins.

Scholars generally agree that there are two sources of the Western tradition: Judeo-Christian doctrine and ancient Greek intellectualism. There is also recognition that Western civilization is largely built atop the Near Eastern civilizations of Mesopotamia and Egypt, which were among the first in the world. The proximity of Europe to the Near East, hence "near" region, explains cultural interaction. A basic question arises, however, as to which antique people specifically prepared the way for the West to develop. While early Aegean cultures are often viewed as the mainspring, assessment of the growing literature reveals that the maritime city-states of Phoenicia *stimulated* (Bronze Age) and *fostered* (Iron Age) Western civilization.

Phoenicia, a small maritime region, lay on the Eastern Mediterranean coast. The Phoenicians, who were Semites, emerged as a distinct Canaanite group around 3200 BCE. Hemmed in by the Lebanon Mountains, their first cities were Byblos, Sidon, Tyre, and Aradus.²

The principal axis of Eastern influence, Phoenicia sent forth pioneering seafarers, skilled engineers, gifted artists and artisans, and master entrepreneurs of antiquity.

¹ Xella (2013), 1.

² Holst (2008).

Through a peaceful,³ long-distance exchange network of goods and ideas, they influenced the trade, communication, and civilizational development of the Mediterranean basin, notably Greece. The height of Phoenician shipping, mercantile, and cultural activity was during the early Greek Archaic period, especially, the Orientalizing phase, c. 750-650 BCE, which appears to have laid the foundations for fifth century BCE Classical Greece. Phoenician mercantilism prompted European state formation in the Aegean, Italy, and Spain.

This past century, anthropologist Ralph Linton, in *The Tree of Culture*, confirmed the influence of the Phoenician thalassocracy -- rule of the sea -- and explained: “Their main role in the development of the Greek and other Mediterranean cultures was as intermediaries between Asia and Europe.”⁴ Modern Phoenician studies were launched during the early 1960’s by Sabatino Moscati and the Italian school. During the seventies, there was a focus on the Phoenician expansion.

The Sea Traders was introduced by archeologist James B. Pritchard: “They became the first to provide a link between the culture of the ancient Near East and that of the uncharted world of the West...They went not for conquest as the Babylonians and Assyrians did, but for trade. Profit rather than plunder was their policy.”⁵ Hans G. Niemeyer edited the educative *Phönizier im Westen*.⁶

Toward the close of the century, *La civilization phenicienne et punique: Manuel de recherche*⁷ appeared as a landmark collection of articles in Phoenician-Punic studies. Reviewer Philip C. Schmitz’s concluding comment: “To the general historian, the volume offers an alternative history of the Mediterranean before Rome, balancing the Hellenocentric narratives that have so long determined the shape of ‘Western’ civilization.”⁸

The Bronze Age: Phoenicia and Embryonic Western Civilization

From the Early Bronze through the Iron Age, North Africa and the whole of Europe were eventually integrated. The world-systems approach emphasizes long-distance trade (land and sea) and communication, and it includes the traditional concept of cultural diffusion.

³ Niemeyer (2004), 245, notes that the Phoenician expansion does not appear to have had political or military aims; mercantilism requires trust, so it is generally peaceful.

⁴ Linton (1956), 341.

⁵ Pritchard (1974), 7.

⁶ Niemeyer (1982).

⁷ Krings (1995).

⁸ Schmitz (2001), 636. Since the mid-1980’s, a trend is for more Classicists to treat Greek and Mediterranean history “as a continuum”: Uwe (2006), 4.

Diffusion involves ideas, technology, goods, and individuals; nevertheless, aspects of culture may be modified or even rejected by local elites and their societies.

By the third millennium BCE, there were two core powers, Egypt and Mesopotamia. “Semi-peripheries” were capitalist polities that linked up and conducted trade between cores and the undeveloped peripheries. Just to the north of the Phoenicia region was the small Canaanite kingdom of Ugarit.

Cyrus H. Gordon affirms that “Ugarit was intimately connected with the Phoenicians, who were spreading Eastern culture wherever possible by sea”;⁹ it was semi-peripheral to Mesopotamia.¹⁰ Actually, many scholars treat Ugarit as a purely Phoenician city. Phoenicia proper formed a unique, westward-facing maritime region that served as a semi-periphery of *both* cores—thus stimulating the rise of a new civilization in the West.

Minoan civilization of the Middle Bronze Age (c. 2000-1450 B.C), combined with later Mycenaean Greek contributions, is duly acknowledged as the forerunner to Classical Greece, which elevated Western civilization. The intensification of Eastern trade on the island, observes Stuart W. Manning, coincided with the early state status and palace-building activity of cities, notably Knossos. From the start of the second millennium BCE, “Crete seems to have been significantly oriented toward the Levant and the Near East, rather than the Aegean.”¹¹

Many archeologists agree that the emerging Minoan elite gradually began to import Near Eastern exotic, prestige products and technologies, such as advanced sailing ships.¹² Found within the monumental buildings are exotic materials and luxury products (gold, ivory, and faience); new metalworking techniques are also introduced. Thus, “the evidence may suggest some kind of state-level relations with the Egyptian Middle Kingdom, perhaps via the Levantine coast.”¹³

Architecturally, the palaces are built in the Mesopotamian tradition of organic or informal design, including central courtyards, orthostatic facades,¹⁴ long corridors, drains, and *figural painted* frescoes.

⁹ Gordon (1966), 12.

¹⁰ Monroe (2011), 88, 94.

¹¹ Manning (2008), 106-115.

¹² Tomkins and Schoep (2010), 70; Manning (2008), 115-116. In the broader Aegean, according to Broodbank (2008), 68-70, the new nautical technology was apparently adopted in the transition from the third to the second millennium. Levantine-type (Phoenician) seagoing ships—superseding canoe and longboat networks—helped to transform the Cycladic economy and society.

¹³ Papadimitriou and Kriga (2013), 10, 11.

¹⁴ Tagdell (1998), 188-189.

By importing monumental construction techniques, Minoan elites seem to have been emulating their Near Eastern counterparts.¹⁵

L. Vance Watrous points to Near Eastern inspiration for architecture, Cretan hieroglyphic and Linear A (and, thus, Mycenaean Linear B) syllabic writing, clay tablets, and sophisticated sealing practices as major elements in the administrative model.¹⁶

Perhaps the leading theory is that the Cretan scripts derive from Old Phoenician.¹⁷ The Cretan number system used in accounting, notes historian of mathematics Georges Ifrah, has “exactly the same intellectual basis” as in monumental Egyptian notation: the additive principle in base ten.¹⁸ There is probable similarity of room arrangement between the Minoan-Mycenaean palaces’ archives (libraries) and their counterparts in the Near East.¹⁹

Economist Michael Hudson underscores the fact that accounting, along with writing, time (in base sixty), prices, and monetary silver, were first standardized in Sumer for the administration of the commercial sphere.²⁰ Archeologists trace clay tablets, seals, and “accounting formats moving up the Euphrates to Sumerian outposts such as Asshur and Mari, and on to Syria, Ugarit, and ultimately Crete and Mycenae.”²¹

Weights and measures, too, were standardized in these regions.²² Consequently, during the later Middle Bronze Age (1800-1600 B.C), the Cretans devised their own uniform system of weights and measures. Equivalences between the Minoan and Levantine weighing systems were also developed, illustrating the regular nature of transactions between Crete and the Near East. Minoan regional trade with mainland Greece for Laurion silver enhanced their Eastern Mediterranean exchanges.²³

¹⁵ Schoep (2009), 33-34.

¹⁶ Watrous (1987), 69-70.

¹⁷ Best (1988), 26: the language of the Minoans remains a mystery; in 1957, the Semitist Cyrus H. Gordon proposed that it derives from Northwest Semitic (signs and syntax), specifically Old Phoenician. Following him are Robert Stieglitz, Jan Best, and others. On the imported Byblos script, see Best (2010).

¹⁸ Ifrah (2000), 178, 180.

¹⁹ Staikos (2004), 40-41, 43.

²⁰ Hudson (2004), 1-3.

²¹ Hudson (1992), 130.

²² Hudson (2004), 1. Beaujard (2011) points out that the combination of writing and standardized weights and measures “represented a powerful tool for rationalizing activities,” 16—that spread westward.

²³ Papadimitriou and Kriga (2013), 11, 13.

The emergence of the later Middle Bronze to early Late Bronze Age elite at Mycenae took place during the Shaft Graves period. Similar to the Minoan, the Mycenaean elite favored a shift toward Near Eastern luxury products in their cultural development.²⁴ A. Bernard Knapp notes that within this Orientalization phenomenon, local rulers in Late Bronze Age Cyprus and Mycenaean Greece imported prestige objects associated with Mesopotamian and Egyptian royal ideology.²⁵

Glass, an important luxury product, made its debut in the West on Late Minoan Crete. The Cretans earlier learned to manufacture another Near Eastern vitreous material, faience, but there is no evidence that they did glassmaking, only glasswork.²⁶

Although the Romans credited the Phoenicians with originating glass technology, it was first invented in Mesopotamia c. 2500 BCE. Around 1550 BCE, New Kingdom Egypt adopted and sponsored primary glass production.²⁷ Henceforth, the Phoenicians acted as intermediaries to ship both finished merchandise and raw glass on established trade routes to the Aegean.²⁸

In economic history, Late Bronze Age political stability, which included royal protections, but also rules, for merchants and traders, spurred commerce. The Phoenician business model of the Bronze and Iron Ages represents an inheritance from Mesopotamia: Sumer to Babylonia to Assyria to the Canaanite city-states on the coast. Thus, mixed enterprise flourished as the crown (public) and merchants (private) each contributed capital to invest in manufacturing and long-distance trade.²⁹

Byblites of the Late Bronze Age created a remarkable twenty-two letter alphabetic writing system, known as Phoenician. It was developed out of the Ugaritic script, which, in turn, had developed out of proto-Canaanite. The second millennium BCE, proto-Canaanite linear script, the first alphabet in the world, was invented somewhere in the Levant.³⁰ Aside from its diplomatic and cultural merits, the commercial value of the Phoenician alphabet aided the region in its rise as a mercantile empire during the Iron Age. Simultaneously, it aided in the ongoing transfer of high culture from the Near East to the West.

Sweeping across the Eastern Mediterranean at the close of the period, c. 1200 BCE, were the invading or displaced Sea Peoples from the Aegean.

²⁴ Burns (2010), 292,296. For example, the influential gold sheeting technique, applied to jewelry, vases, and prestige weapons, was probably imported from the Levant: Laffineur (2010), 448, 452.

²⁵ Knapp (2006), 48, 59-60.

²⁶ Sherratt (2008), 217, 216.

²⁷ Henderson (2013), 173, 203, 8. Ugarit may have also been a center of primary glass production: *ibid.*, 8.

²⁸ Berretta (2009), 8-9.

²⁹ Moore and Lewis (1999), 69-90; Moore and Lewis (2009), 85-90.

³⁰ Markoe (2000), 110-111.

The Hittite Empire collapsed, Ugarit was permanently destroyed, and Egypt went into decline, despite the victory of Ramses III. Fortunately, the Phoenician cities survived (one theory is that they allied themselves with the Sea Peoples).³¹ Ill-fated, the Mycenaean palatial society also fell and, thus, Greece entered its “Dark Age.” Western culture was devastated and now largely isolated from the cosmopolitan Near East.

Creating a vast, mercantile network—as well as filling the Aegean vacuum—was Phoenicia. Subsequently, Phoenician civilizational influence spanned (another) thousand years, traversing the Iron Age and impacting the West.

Iron Age: Exploration, Mercantilism, and Cultural Influence in the West

A full millennium, c. 1200 to 200 BCE, is the time scale for the combined Phoenician and Carthaginian commercial empires.

The region of Phoenicia,³² part of northern Canaan, held a collection of entrepreneurial city-states. The major Iron Age cities were Tyre, Sidon, Byblos, Aradus, Beirut, and Serapta, with the coastal land and ports extending from Aradus south to Dor (in northern Israel).³³ Robert Stieglitz remarks that the “internationalism” of the Late Bronze Age was soon “replaced by the flowering of the Phoenician renaissance.”³⁴

Conquered by Alexander the Great during the 330s BCE, the Phoenician homeland cities lost their independence permanently before merging with the Hellenistic world. The collapse or decline of the Late Bronze Age core empires, observes Philippe Beaujard, was followed by a restructuring of the world-system at the beginning of the Iron Age.³⁵ Thus arose the Phoenician trade network in the West. Phoenicia was semi-peripheral to both the Egyptian and Assyrian cores. Moreover, Tyre, in southern Phoenicia, its leading polity, would become the economic core of a new world-system in the Mediterranean.³⁶

World historian Jerry H. Bentley points out that maritime commerce *actuated* the economic, social, and cultural integration of the Mediterranean basin. Initiated by the Phoenicians, then followed by the Greeks (who reflected the Phoenician pattern) and Romans, merchants organized networks of exchange and distribution. These networks encouraged the division of labor and the building of states.³⁷

³¹ Bell (2006), 25.

³² The term Phoenicia is defined and particularized by Lembke (2006), 228, as a “cultural unit.”

³³ Bell (2016), 92, 95: from at least the Late Bronze Age, the archeological evidence now shows a common Phoenician material culture inclusive of Dor.

³⁴ Stieglitz (1990), 9.

³⁵ Beaujard (2011), 19.

³⁶ Faust and Weiss (2011), 197-198.

³⁷ Bentley (1999), 215-219.

Susan and Andrew Sherratt concur that Phoenician mercantile and cultural activity prompted European state formation: first in the Aegean, then in Italy and Spain.³⁸

Phoenician influence—economic and mercantile; nautical and long-distance trade routes; exploration and colonization; art and architecture; mining, metallurgy, and glass; salt production; large-scale agricultural; and, cultural, including the West’s (and most of the world’s) alphabet, the book, and literacy—was primarily westerly in direction.

Viniculture was introduced to Europe.³⁹ In sum, they transferred the beneficial elements⁴⁰ of the urbanized Near East to foster Western civilization. At its height, the Phoenicians’ sea *and* land mercantile web, which has been described as “hemispheric,”⁴¹ stretched across most of the known world: three continents and two oceans. In fact, much of it was discovered by the sea traders, themselves, in their penetration of new markets.

Early in the first millennium BCE, the Phoenicians set up the world’s first maritime empire: ports, bases, warehouses, and emporia, up to the southern Black Sea and across the Mediterranean basin and beyond. Initially, trading stations were established at strategic geographic and economic locations. Massalia (Marseilles) in France was founded but not permanently settled.⁴² Territorial colonies were established in Cyprus, mineral-rich Sardinia and Iberia (Spain and Portugal), the Balearic Islands, Sicily, Malta, and agriculturally-rich North Africa (first Utica and Carthage). Exploration and colonization went past the difficult Strait of Gibraltar or Pillars of Hercules. (Hercules was originally a Phoenician hero.) The Atlantic coasts of Africa and Europe, and, perhaps, the British Isles, were discovered.

Founded by Tyre, in 814 BCE, the traditional date (close to recent archeological evidence), Carthage was itself destined to become a commercial juggernaut in the West. The Phoenicians held both shores of the Pillars, thereby controlling access to the Atlantic. Despite later Greek, and then Roman, competition in the Western Mediterranean, Carthaginian economic and naval dominance continued into the Punic Wars (264-146 BCE).

³⁸ Sherratt and Sherratt (1993), 367, 369.

³⁹ McGovern (2007), 202-203.

⁴⁰ Less favorable elements may be the Phoenician slave trade and, marks Hudson (1992), 128, 138-139, the introduction of credit practices into Archaic Greece and Italy.

⁴¹ Moore and Lewis (2009), 110. Therefore, the “shift of world civilization from the ancient Near East to the Mediterranean lands adjacent to Europe... would seem to call for a readjustment of the role played by the Greeks in this world-historic shift of history’s wheel”: *ibid.*, 110-111.

⁴² Cartledge (2009), 62: the original name Massalia means “settlement” in Phoenician.

Led by Tyre, the mercantile network was headquartered on the eastern shore of the Mediterranean. High-quality cedar and fir forests on the mountain slopes were ideal for building ships, as well as for export or tribute. This geographic location was crucial to the success of the maritime and overland enterprise. Canaan contained excellent harbors, enabling it to be part of the Fertile Crescent. Through it laid the caravan routes that connected to Egypt, Arabia (and through it the Indian market), Asia Minor, Mesopotamia, and, later, to the Silk Road.⁴³

When the Late Bronze Age New Kingdom pharaohs conquered Canaan, they protected its growing trade activity at the junction of both land and marine highways. Moreover, under Ramses the Great, at Memphis, the Egyptian administrative capital and site of its main shipyards, a Phoenician commercial enclave was established.⁴⁴

The Egyptians, who respected the shipwright and maritime expertise of the Phoenicians, partnered with them in the Red Sea and Indian Ocean trade routes.⁴⁵ During the Iron Age, such relations with Egypt continued.

By 1200 BCE, the Phoenicians were building large merchant ships. In world maritime history, declares Richard Woodman, they are recognized as “the first true seafarers, founding the art of pilotage, cabotage, and navigation” and the architects of “the first true ship, built of planks, capable of carrying a deadweight cargo and being sailed and steered.”⁴⁶

Master shipbuilders, during the Bronze Age, laid a keel and ribs (for strength in rough weather). For sturdy hulls to check wave and hold cargo, pegged mortise-and-tenon joints were developed on the Levantine coast; this method spread westward, and it became standard until the Late Roman period.⁴⁷ The hull was rounded for faster movement through the water. The brailed rig sail—so vital, because it enabled tacking against the wind—was likely a Levantine innovation.⁴⁸ Transport amphorae that became standardized for volume, in use and imitated for over two thousand years until Byzantine times, were invented in Phoenicia.⁴⁹

In stellar navigation, the North Star was discovered, which the later Greeks called the Phoenician Star; this enabled sailing at night on shorter distance, open-sea routes. The first evidence of maritime law also appears in the Levant.⁵⁰

⁴³ Edey (1974), 57-58.

⁴⁴ Markoe (2000), 14-16, 20.

⁴⁵ Bourne (2003).

⁴⁶ Woodman (1997), 16. Cabotage refers to coastal navigation.

⁴⁷ Pulak (2010), 873; Bass (2010), 799-800.

⁴⁸ Wood (2012), 8.

⁴⁹ Ragev (2004), 352.

⁵⁰ Wachsmann (1998), 300, 51, 323-325, 332. The first recorded open-sea route on the Mediterranean was Byblos to Cyprus to Egypt: *ibid.*, 295-296.

Iron Age contributions include the art of cartography;⁵¹ the first artificial (and self-cleaning or flushing) harbors, such as those in Sidon, Tyre, Atlit, and Acre;⁵² and, the revolutionary bireme war galley.

Around 800 BCE, the Phoenicians found it necessary to protect their interests. The Phoenicians are generally credited with designing a war galley with two banks of oars for speed and maneuverability in battle, the bireme. This concept would dominate throughout the Mediterranean for the next two thousand years.

The Greeks perfected the galley as a warship and added a third bank of oars,⁵³ although many scholars believe that, logically, the Phoenicians actually fashioned the addition, the trireme.⁵⁴

Concurrent with their early first millennium BCE, sea trade in the West was a notable expansion of Phoenician land commerce in Western Asia and Egypt. This transit trade involved manufactured goods, raw materials, and slaves (skilled and unskilled). In southeastern Anatolia, the Phoenician influence upon the Cilician cities was both economic and cultural.⁵⁵

Industry was another key to the success of the mercantile network. Through the Bronze Age both luxury and common goods were produced. Iron Age Phoenicia continued to excel in many industries and decorative arts. The export market in view became the entire inland sea.⁵⁶ Additionally, supplying the mercantile network were Phoenician regional craft production centers in Cyprus, Rhodes, Tharros in Sardinia, Carthage, and Gades (Cadiz).⁵⁷ Overall, concerning trade in Phoenician handicrafts, comments Piero Bartoloni, “for the proto-historical West they represented the gateway to The East” (p. 78).⁵⁸

The Phoenicians pioneered mass production. Their region, for example, emerged as the leading producer of glass, which now included *transparent* glass.

⁵¹ Woolmer (2011), 84.

⁵² Haggi (2010), 283. Harbor technology was transferred to the western colonies, such as those in Sicily, as well as Carthage: Pederson (2011), 41.

⁵³ Woodman (1997), 16-23. The Venetian galley design, in particular, would be adapted to the carrack (see below, note 201), receiving the name of galleon—the trans-ocean-going ship of the early modern European powers: *ibid.*, 21-23, 59-63.

⁵⁴ Miles (2010), 46-47.

⁵⁵ Lipiński (1995), 1325-1326. Wolfgang Röllig (1992), 102, 93-97, perceives that beyond Phoenician sea connections to Archaic Greece, Anatolian land routes played some role in the transfer of civilization: Levantine scribes, merchants, and craftsmen apparently carried Mesopotamian goods and thought to East Greece.

⁵⁶ Braudel (2001), 184-186.

⁵⁷ Markoe (2000), 149, 171, 152, 186.

⁵⁸ Bartoloni (1988a), 78.

Finished articles, such as flasks and beads, by the thousands, were shipped across the Mediterranean.⁵⁹ In Spain, wheel-turned pottery was introduced, and it was then mass produced.⁶⁰ The Carthaginians mass produced ships; parts were labeled with the Punic alphabet.⁶¹

Their most famous product, the expensive Tyrian and Sidonian purple dye, was exported either as powder or as dyed fabric, especially wool. The Greeks ascribed the ethnic name of Phoenicians (derived from the word *phoinos*, meaning red) probably because of their red to violet cloth. The Royal Purple of the ancient monarchies, as in Rome, became the Western standard of imperial adornment.

The artwork of the Phoenician cities was renowned in ancient times, and it is increasingly respected by experts today.

Besides fine textiles and glassware, other major productions were woodworking with mortise-and-tenon seams; ivory work, often inlaid in furniture; metalwork, including bronze, silver, and gold cups and bowls; and, jewelry. Perfected were the Near Eastern techniques of filigreeing, granulation,⁶² repoussé, and gold sheeting (embossing pertains to bowls).⁶³

By 1000 BCE, iron smelting and ironworking were mastered.⁶⁴

Manufacturing such a variety of merchandise resulted in the specialization of the workforce.⁶⁵ Since Phoenicia was the ancient world's trading hub, its highly skilled craftspeople gained knowledge of and worked with all types of materials, techniques, and artistic styles.

Foreign states often called upon its engineers. Hence, both Solomon's Temple and his palace were constructed by imported Phoenician artisans.⁶⁶ As Byblos and Ugarit had done before, wealthy Tyre, in southern Phoenicia, became the principal east-west center of trade in luxury products and metals.⁶⁷

⁵⁹ Herm (1974), 80.

⁶⁰ Moore and Lewis (1999), 128.

⁶¹ Bartoloni (1988b), 76; Lancel (1995), 132.

⁶² Aubet (2001), 79.

⁶³ Bartoloni (1988a), 82.

⁶⁴ Edey (1974), 62.

⁶⁵ Aubet (2001), 80.

⁶⁶ Edey (1974), 58-60; 2 Chron. 2:3-16. As recorded in Ezra 3:7, the Phoenicians were also involved in the *rebuilding* of the temple after the Babylonian Exile.

⁶⁷ Aubet (2001), 82, 79, 80.

As sea merchants in the West, they brought Mesopotamian astronomy and weights and measures, as well as their own Phoenician alphabet: a phonetic code (not a pictographic system) to build words.

This simplified writing system did not require professional scribes as in Egypt or Mesopotamia,⁶⁸ and it could be written on a variety of media. A long-distance network of trade involved contracts, correspondence, and record keeping. Transferrable to other languages, the egalitarian alphabet was (and is) easy to learn—in fixed sequence.⁶⁹

En route, the Phoenicians displayed their engineering prowess. Major projects were designed and completed on three continents.

These are illustrated by:

- massive fortifications;
- Mesopotamian-style urban planning;
- an artificial isthmus (Sardinia);⁷⁰
- a causeway (Sicily);⁷¹
- an artificial channel (Carthage);⁷²
- Beirut's sixth century BCE, earthquake-proof architectural techniques and complex sewer systems (predating those in the Greek world);⁷³
- artificial, self-flushing harbors with precision underwater construction of walls;⁷⁴
- multi-story buildings;⁷⁵ and, Egyptian-influenced monumental architecture.

Naval allies of the Persians in their wars against the Greeks (500-449 BCE), the Phoenicians rendered engineering service. A notable achievement was the one and one quarter mile canal at Mount Athos for Xerxes's ships to pass.⁷⁶

Phoenician colonization in the West began on the copper-rich island of Cyprus, only ninety-five miles from the Levant. Commercial relations began during the Middle Bronze Age. Cultural transmission (ex. alphabetical writing) by Phoenician traders intensified in the late eleventh to early tenth centuries BCE.⁷⁷

⁶⁸ Bentley and Ziegler (2000), 52.

⁶⁹ Linton (1956), 112.

⁷⁰ Markoe (2000), 81, 86-87, 76-77, 178

⁷¹ Miles (2010), 92.

⁷² Hoyos (2010), 73.

⁷³ Elayi (2010), 157-160.

⁷⁴ Haggi (2010), 281.

⁷⁵ Lancel (1995), 168-169.

⁷⁶ Markoe (2000), 51.

⁷⁷ Bell (2006), 111-113. After 1200 BCE, the ports of western Cyprus, notes Bell (2016), 94, 100, seem to have served as a platform for Phoenician western expansion.

During the ninth century BCE, when the first colonies were founded, there appeared black-on-red or Cypro-Phoenician fine ware.⁷⁸ Along with their pantheon, another influence was Oriental (or Phoenician) art and architecture.⁷⁹ Tyre transplanted the Phoenician business model of international managed trade in the leading colony of Kition (Citium).⁸⁰

Crete, rich iron ore, seems to have had permanent Phoenician settlements by the ninth century BCE.⁸¹ Excellent Orientalizing bronze work highlights the craftsmanship there. The island served as a Phoenician center for Mediterranean trade in metals and luxury goods (glass, metallic, ivory).⁸² Eastern products were probably shipped to mainland Greece cities, such as Delphi and Olympia.⁸³ Crete was also on a major Phoenician line to western Italy and points west.⁸⁴

On Rhodes, since the Middle Bronze Age, “a gateway into the Aegean for ships sailing westwards from the Near East,” permanent Phoenician communities were established during the eighth century BCE.⁸⁵ Manufactured for export were trinkets, luxury items in faience, ceramic unguent flasks,⁸⁶ and silverwork.⁸⁷

Preliminary trade with the Euboean Greeks was established during the tenth century BCE. This traffic introduced Eastern prestige goods, such as gold jewelry and fine cloth,⁸⁸ weight standards,⁸⁹ and Phoenician alphabetical writing,⁹⁰ perhaps the first in Greece.

The height of Phoenician shipping in the Aegean was during the eighth and early seventh centuries BCE. Markoe observes the archeological distribution of finished goods, including Egyptian and Assyrian wares, and points to a “Phoenician commercial channel to the Greek mainland.” Direct trade and cultural exchange took place in coastal cities, such as Eleusis, Argos, and especially Corinth.⁹¹

⁷⁸ Lipiński (2004), xiv.

⁷⁹ Markoe (2000), 29.

⁸⁰ Moore and Lewis (1999), 110-111.

⁸¹ Lipiński (2004), 186-188.

⁸² Markoe (2000), 172.

⁸³ Hoffman (1997), 259.

⁸⁴ Markoe (1996), 59.

⁸⁵ Lipiński (2004), 145-146.

⁸⁶ Markoe (2000), 171.

⁸⁷ Markoe (1992), 69.

⁸⁸ Sherratt and Sherratt (1993), 365. Initial (post-Mycenaean), sporadic trade with Euboea is now fixed in the eleventh century BCE; additionally, the Phoenicians operated in the northern Aegean: Tiverios (2012), 69-72.

⁸⁹ Kroll (2008), 37-48.

⁹⁰ Paine (2013), 84.

⁹¹ Markoe (2000), 174, 173.

The title of the synthesis *The Orientalizing Revolution: Near Eastern Influence on Greek Culture in the Early Archaic Age* (1992), by Walter Burkert, exhorts Hellas-centered Classicists. Its theme: the formative epoch, from c. 750-650 BCE, known as the Orientalizing period, was decisive.

Under the influence of the high culture of the Semitic East (Assyrian, Phoenician, Aramean), Greece laid the foundations to create a culture that would eventually dominate the Mediterranean—Classical civilization. The most important transmission was the Phoenician alphabetic script (Mycenaean Linear B had died out).⁹²

Along with the concept of the book, Semites contributed traditional Mesopotamian literary forms, techniques, and motifs—besides the Phoenician pantheon—that find strong parallels in Hesiod, Homer, and Aesop.⁹³ Mentioned above are the scientific traditions of nautics, astronomy, and mathematics. Another Eastern, including Phoenician, tradition was fine music: inherited by the Greeks and handed down to the European Middle Ages.⁹⁴ Phoenicia conveyed the religious-sport festival and athletic stadium (monumental architecture), forerunning the celebration of the Olympic games.⁹⁵

So, the editors of *Debating Orientalization* reaffirm the centrality of the Phoenicians in the cultural process of Orientalization: defined as the indigenous adoption and reworking of Eastern goods (luxury and common) and ideas. This practice is first seen on Cyprus, then in the Greek, Italian, and Iberian regions.⁹⁶

The prehensile Archaic Greeks modified the Phoenician alphabet in order to accommodate their vowel-intensive Indo-European tongue, thus forming the basis of all the West's (Latin and Cyrillic) alphabets. Phoenician letters also served as the number system in ancient Greece. Created by the Greeks themselves, their system employed base ten and the A B C order: numerical values were attributed to letters, from one to nine, in tens to ninety, then in hundreds, and so on.⁹⁷

⁹² Burkert (1992), 5-8, 128-129, 25.

⁹³ *Ibid.*, 29-33, chap. 3. Hesiod lived in Boeotia, and Homer in Ionia, regions with Phoenician influence. The Phoenician deity Europa is mentioned earliest in a work of Hesiod. The Greeks perhaps gave this name to their continent—much of which happened to be discovered by the Phoenicians: Europe: De Rougemont (1968), 21, 24, 6, 31-32.

⁹⁴ Sachs (1943), 63, 127; Westenholz (2014), 1.

⁹⁵ Boutros (1981), 55-77, 127-129.

⁹⁶ Riva and Vella (2006), 13-14. The editors also support the breaking down of the traditional bounds of the term Orientalization to begin in the Bronze Age: *ibid.*, 2.

⁹⁷ Ifrah (2000), xxi, 220-221, 227, 213. Greek and Latin (originally Phoenician) letters are used across the sciences. Common examples are the number pi (π) and the variables x and y ; more recently, DNA sequencing uses the code letters A, C, T, G. Currency symbols, such as the dollar sign (\$), also derive from the alphabet. Then there is musical notation and symbols.

Decentralized Greece (similar to Phoenicia) exploited the democratic and “modernizing” potential of the alphabet. Within its emerging city-states, ordinary merchants, artisans, and others—not just the aristocracy—might keep accounts and become literate.⁹⁸

The alphabetical order (like the numerical) system is how societies organize information. Early examples are the Greek numbering system and the first alphabetization of books cataloged in the library in Alexandria. Beyond literacy and organization, the alphabet stimulates both abstract and rational thought through the phonetic coding and decoding process. As a result, the adoption of Phoenician letters—especially in Ionia and Athens—created an intellectual environment for the development of Greek, and, subsequently, Western science.⁹⁹

In the Greek language, writes Burkert, there is a “marked presence” of Semitic loan words, thus proving Phoenician cultural influence. These are displayed in the critical areas of writing, commerce, trade, and craftsmanship. Following are selected examples: *alpha*, *beta*, *gamma*, and so forth, are letter names; *byblos*, the word for book (and later, Bible) since the Greeks imported Egyptian paper from Byblos; *mina*, the standard unit of weight and currency; *kanon*, the standard unit of measurement in architecture or measuring rod; *titanos*, lime, *gypson*, plaster, and *plinthos*, clay brick, are new construction terms; *gaulos*, the word for ship, *makellon*, market; and, *arrabon*, deposit.¹⁰⁰

Orientalizing art is principally represented by fine metalworking, ivory carving, jewelry (gold filigree, granulation, and so on), ceramics, and the first large-scale architecture. Presumably, communities of resident craftsmen within Greek cities introduced the leading-edge technical skills, styles, and iconography of the industries of their Phoenician homeland: a process of indigenous apprenticeship.¹⁰¹

Greece’s first monumental temples and statuary are based on an Eastern prototype, and they appear during the eighth century BCE.¹⁰² Architectural features that were adopted include the Phoenician Proto-Aeolic capital, forerunner of the Ionic capital, and ashlar masonry.¹⁰³ Greek emulation of the great Near Eastern buildings is evident.¹⁰⁴ The Phoenicians also acted as intermediaries to carry Egyptian architectural techniques to Hellas.

⁹⁸ Muller (1964), 101; Burkert (2004), 16.

⁹⁹ Logan (1986), 25 (McLuhan quote), 17-21, 187-191, 207, 103, chap. 6. De Looze (2016) examines writings about the alphabet, itself, since Classical Greek times; his main theme is that a powerful “alphabetic culture,” 5, has emerged to shape Western civilization.

¹⁰⁰ Burkert (1992), 35, 34, 28-40.

¹⁰¹ *Ibid.*, 9-25.

¹⁰² Kopcke (1992), 110-112.

¹⁰³ Morris (1992), 129, 147.

¹⁰⁴ Morris (2006), 77.

For the interior of buildings, beyond plaster, other materials used were wood (cedar) paneling, for example, Solomon's Temple; alabaster slabs; and, stucco (western Phoenician-Punic world). Originally, Phoenicians of the Bronze Age developed lime mortar with hydraulic properties from which the Greeks evolved true cement.¹⁰⁵ Subsequently, the Romans would produce concrete.

For the genesis of philosophy, the Greeks ascribed Phoenician parentage to both Thales (by Herodotus),¹⁰⁶ the founder of Western philosophy and science, and, next in importance, Pythagoras (by Neanthes). They lived in sixth century BCE, Ionia, a region of former Phoenician influence.

Modern historians, though, most often reject such claims, because a Greek tradition assigned Eastern characteristics to celebrities in admiration of older civilizations.¹⁰⁷ Nevertheless, Eric S. Gruen, in *Rethinking the Other in Antiquity* (2011), determines that "the repute of the Phoenicians among Greek intellectuals, in fact, was high."¹⁰⁸

Stoicism, the most important post-Aristotelian philosophical school, dominated in the Hellenistic and Roman periods. Its founder, Zeno of Citium (Kition), lived from c. 335-263 BCE. The Phoenician ancestry of Zeno is not in doubt.¹⁰⁹ With its doctrines of the Logos, Providence, and a noble ethic, Stoicism served as a preparation among the intellectual class for the acceptance of Christianity in the West.¹¹⁰

Zeno of Sidon (c. 150-70 BCE), a prominent Epicurean, taught Cicero in Athens. He is known for challenging Euclidean geometry in trenchant ways. Likewise, Zeno's epistemological dispute with the Stoics anticipated John Stuart Mill's theory of induction.¹¹¹ Thereafter, the Carthaginian philosopher Hasdrubal, in 129 BCE, became head of the Athenian Academy.¹¹²

Historian of science Leonid Zhmud comments on the preliminary data used in the first—in the world—mathematical proofs by the early Hellenes. "Semitic borrowings in the Greek related to weights, measures, and practical calculations confirm that this area was open to Oriental influence."¹¹³

¹⁰⁵ Harden (1962), 141, 136.

¹⁰⁶ Laertius (1970), vol. 1, 23, 25.

¹⁰⁷ Zhmud (2012), 74, 84-85.

¹⁰⁸ Gruen (2011), 119.

¹⁰⁹ Laertius (1970), vol. 2, 111, 113, 117. Likewise, the early Stoic Chyrrsipus of Soli, who systemized the philosophy, was of Phoenician ancestry: Woolmer (2011), 73.

¹¹⁰ Copleston (1985), vol. 1, 505.

¹¹¹ "Zeno of Sidon" (2000), 956-957.

¹¹² Miles (2010), 352. Another Carthaginian, Herillos (third century BCE), also taught in Athens: Lipiński (2004), 175.

¹¹³ Zhmud (2012), 250.

A fifth century BCE, contribution, the abacus, “probably reached Greece from Phoenicia.”¹¹⁴ This valuable calculating device was in service in the West until the French Revolution.¹¹⁵

The democratic and constitutional Athenian city-state—pivotal to the growth of the Western world—may be another adaptation.

From the Bronze Age onward, observes Markoe, “true city-states” functioned in Phoenicia.¹¹⁶ These autonomous, monarchical city-states with their councils of elders and peoples’ assemblies are characterized as proto-democratic. With regard to Greece, some scholars suggest that early experiments in democratic government took place in regions with Phoenician influence. Borrowings of democratic ideas may be seen, for instance, on the island of Kos, and in Ionia, on Chios and Samos. Also, preceding Athens, Sparta had a constitution. Aristotle, in his analysis of the Spartan and Carthaginian (Punic) constitutions, points to similarities: councils and popular assemblies. Thus, Simon Hornblower, Robert Drewes, and others assume that the Spartan system followed a Phoenician prototype.¹¹⁷

Phoenician models adopted or adapted by Archaic Greece, like the alphabet, were crucial to its commercial intercourse with leading societies, along with the development of Western civilization. Generally accepted is that Phoenician standards of weights and measures were universally employed by the Greeks, passed on to the Etruscans and Romans, and inherited by medieval Europe.

Hudson makes the convincing case that the financial customs of Classical Greece and Rome were not indigenous to Indo-European societies as many assumed previously. Instead, during the Archaic period, largely through Phoenician maritime commerce, financial innovations were diffused to the Greeks and Etruscans, then transferred to the Romans:

- maritime law,
- insurance contracts,
- joint financing of business ventures,
- banqueting (aristocratic symposium),
- deposit (aforementioned *arrabon*) banking, and
- interest-bearing debt.¹¹⁸

¹¹⁴ Dilke (1987), 21.

¹¹⁵ Ifrah (2001), 15.

¹¹⁶ Markoe (2000), 87.

¹¹⁷ Stockwell (2010), 123-133: the author surveys the literature on this topic.

¹¹⁸ Hudson (1992), 128, 134-141. Large-scale banking and credit in Classical Greece emerged as a result of the metics or resident aliens: Curtin (1984), 77, thus Phoenicians, in the Near Eastern tradition, were major creditors: Hudson (1992), 134.

Finally, the example of Phoenicia's distant voyages and colonization was followed by the Greeks.¹¹⁹ Starting in the eighth century BCE, the Euboeans and Corinthians led the colonization movement. Classicist Richard A. Billows affirms this meant learning the ship construction technology, navigation skills, and the east-west trade routes of the Phoenicians.¹²⁰

On mainland Italy, Phoenician contact is evident by the tenth century BCE, and regular exchange commenced in the ninth century.¹²¹ Eighth century BCE, Etruria and Campania hosted the Levantine merchants. A major goal, concurrent with their mining transactions in Phoenician Sardinia and Phoenician Iberia, was to acquire silver and other ores, so abundant in northern Etruria. Mineral rights were perhaps secured through local diplomatic gift exchange. As in Greece, rather than colonies, resident workshops were likely established on Italian soil.¹²²

Etruscan mariners learned from the Phoenicians how to navigate by the stars,¹²³ and were probably stimulated to make their transmarine voyages¹²⁴ and establish overseas colonies—thereafter the Romans founded colonies.

The strong Orientalizing tradition (c. 750-580 BCE), touching the whole of Italy, involved both goods and ideas.¹²⁵ This period of economic growth, in fact, marks the beginning of Etruscan civilization.¹²⁶ Wine, a luxury product, was introduced to the Etruscans. They, in turn, shipped the beverage in Etruscan amphorae (imitation of Phoenician amphorae) and domesticated grapevines to southern France. Viniculture thence spread north into Europe, and eventually, the New World.¹²⁷

Artistically, advanced techniques, new materials, and styles were presented. Examples are fine silver and gold jewelry displaying granulation, filigree, and punch work; engraved and repoussé silver and gold luxury receptacles,¹²⁸ glass vessels,¹²⁹ ivory carvings; and, the first large-scale sculpture (also in Sardinia) and monumental architecture.¹³⁰

¹¹⁹ Casson (1991), 170.

¹²⁰ Billows (2010), 61-62.

¹²¹ Nijboer (2008), 428-431, 426: the earliest Phoenician imports discovered include musical instruments, faience, gold, and wheel-turned pottery.

¹²² Markoe (2000), 179.

¹²³ Giardina (2010), 6.

¹²⁴ McGrail (2004), 138.

¹²⁵ Nijboer (2008), 424, 434-451.

¹²⁶ Sannibale (2013), 99.

¹²⁷ McGovern (2013), 10147-10151.

¹²⁸ Markoe (1992), 61-63, 67; Gaultier (2013), 914-919.

¹²⁹ Markoe (2000), 157.

¹³⁰ Rathje (2010).

Structurally, Orientalization is associated with the emergence of cities, urban planning,¹³¹ masonry houses with tile roofs, and wheeled vehicles. Moreover, urbanization coincides with the formation of Italian city-states.¹³²

The architectural traditions of Etruria, largely Phoenician and Greek, were later transferred to Rome.¹³³

Etruscan Orientalizing (as in Spain) is characterized by aristocratic emulation,¹³⁴ including the model of the Eastern courts' stately display.¹³⁵ Phoenician imports or their imitation include the following:

- “early togas and the use of the color purple,”
- crown,¹³⁶
- ceremonial axe, scepter,
- horse, chariot,
- throne,
- banqueting equipment, and
- seals.

These Eastern symbols of political authority were passed on to the Romans.¹³⁷

Subsequently, there arrived Greek colonists and merchants. Spreading Hellenic culture, early in the eighth century BCE, they introduced Greco-Phoenician letters to form the Etruscan alphabet. In turn, it was transmitted and adapted by the Romans as the basic Latin alphabet of western Europe.¹³⁸

By 800 BCE, the intercontinental mercantile network of Phoenicia took shape, embracing the far west. The scope of commerce was broad. Beyond metals, trade included slaves, pottery, and high-value foodstuff, like olive oil and wine.¹³⁹

¹³¹ Sannibale (2013), 99, 120-122.

¹³² Leighton (2013), 138-139, 142-143.

¹³³ Berry (2013), 700.

¹³⁴ Riva and Vella (2006), 12.

¹³⁵ Sannibale (2013), 99, 102, 107.

¹³⁶ Nijboer (2008), 443.

¹³⁷ Rathje (2010). Observes Nijboer (2008), as in Greece, the banquet ritual “assisted the exchange of goods and ideas,” 451. Eastern symbols of political rule also spread to the transalpine Celtic princes: Sannibale (2013), 104.

¹³⁸ Paine (2013), 86-87. Related are the Roman numerals, once prehistoric stick notches, which were assimilated to alphabetical letters in the first century BCE: Ifrah (2000), 187-190.

¹³⁹ Curtin (1984), 76.

The analysis of Moore and Lewis shows that Tyre's monarchy and private merchants—a mixed economy with capitalistic features—by 650 BCE, “presided over the most impressive business organization in antiquity...able to internationalize trade and production on an axis stretching from the Atlantic shores of Spain to the shores of the Babylon Euphrates.”¹⁴⁰

Additionally, West Africa (gold, ivory) became a direct trading partner, and the British Isles (tin), an indirect, overland trading partner.¹⁴¹

Gades (Cadiz) in Iberia was founded west of the Strait. The new chronology suggests Phoenician contact in the tenth century BCE, and *settlements* already in the late ninth century in Iberia's—Spain and Portugal—Atlantic coast mining region.¹⁴² Colonies with an agricultural dimension spread all across the southern Mediterranean (“Phoenician coast”) littoral of Spain.

There is consensus on the local Late Bronze Age culture; that is, before Phoenician colonization and the introduction of iron, starting in the eighth century BCE. Iberia was proto-urban—displaying simple ground plans in some areas.¹⁴³ Likewise, its tribal groups were in a transitional phase toward early state formation. The socio-economic bases were already in place.

Joan Sanmartí, therefore, employs a combined endogenist (internal) and exogenist (external) theoretical approach to change. He acknowledges that “foreign contact had an important role in the evolution of the indigenous societies.”¹⁴⁴ Phoenician activity is associated with the technological change, economic intensification, and increased social differentiation that ushered in Iberian Age centralized polities (states).¹⁴⁵

Scholarship thus focuses on the Phoenician period as related to the formation of Iberian culture and its first cities, beginning around 600 BCE. The Iberian Orientalizing phase embraced the late eighth and seventh centuries BCE.

Phoenician workshops introduced their repertoire of artistic techniques, materials (glass was imported), and styles for the production of choice goods.

¹⁴⁰ Moore and Lewis (2000), 21, 37, 34.

¹⁴¹ Moore and Lewis (1999), 128, 111, 122-123, 109-115.

¹⁴² Aubet (2008), 247, 248-250; Pappa (2013), 177-178, 191. Gades (Cadiz), founded by the Phoenicians, is often considered the oldest city in western Europe.

¹⁴³ Belarte (2009), 105-107.

¹⁴⁴ Sanmartí (2009), 50-52.

¹⁴⁵ Sanmartí (2008), 279-280.

Technological transfers were iron, metallurgical techniques, the potter's wheel,¹⁴⁶ and "carts and chariots are the oldest wheeled vehicles in Iberia."¹⁴⁷ Agriculturally, crop specialization, metal tools, technologies, and commercial (surplus) cereal production were spread by the Phoenicians.

Instituted also were viticulture with wine presses¹⁴⁸ and the Old-World grape; and, arboriculture with the domesticated olive and oil presses, plum, walnut, and almond trees.¹⁴⁹ Livestock introductions include the chicken and donkey.¹⁵⁰

Architecture and urban planning reproduced a Near Eastern pattern, including monumental structures¹⁵¹ and civic space.¹⁵² Maria Carme Belarte observes that indigenous peoples adopted certain "new elements, such as a rectangular floor plan, buildings with a complex ground plan, building materials, such as lime, techniques of adobe wall construction, and the like;" she examines the "first urbanism on the Mediterranean coast...the potential role played by the colonial factor—in particular Phoenician commerce," concluding that it was an important "accelerator of the process."¹⁵³

Commerce introduced banqueting; transport amphorae; standardized weights, measures, and seals;¹⁵⁴ consistent exchange rates;¹⁵⁵ and, writing. Many examples of Phoenician alphabetical script adapted to the extinct, untranslated, non-Indo-European Tartessian and Iberian languages have been discovered.¹⁵⁶

Phoenician colonization in Iberia faded with the fall of Tyre to the Neo-Babylonians under Nebuchadnezzar in 573 BCE. Yet, Punic Carthage gradually assumed leadership of the Phoenician cities, and it founded new colonies. Thence, the center of Phoenician mercantilism shifted to Carthage.¹⁵⁷

Culturally, the principal legacy of the Phoenicians to the West, including Iberia, is the alphabet.

¹⁴⁶ Markoe (2000), 186, 157. Mediterranean France received Phoenician, Punic, and Orientalizing Iberian objects from southern Spain, see Dietler (2010), 7.

¹⁴⁷ Harrison (1988), 34. The lyre, too, was a Phoenician import: *ibid.*

¹⁴⁸ Buxó (2009), 157-159, 162-165. Also introduced to Iberia were productive types of wheat and barley, as well as oats, millets, flax, and several legumes, such as peas and beans: *ibid.*, 164.

¹⁴⁹ López Castro (2008), 97-98.

¹⁵⁰ Rodríguez Díaz (2014), 492.

¹⁵¹ Aubet (2006), 98-101.

¹⁵² Pappa (2013), 81.

¹⁵³ Belarte (2009), 91, 93, 107.

¹⁵⁴ Sanmartí (2008), 279-280.

¹⁵⁵ Moore and Lewis (1999), 116.

¹⁵⁶ Dietler (2009), 5.

¹⁵⁷ Moore and Lewis (2000), 36.

The Romans transmitted to the peninsula the Latin alphabet (and language). For the world economy, centuries of Phoenician and Carthaginian mercantilism incorporated Iberia into the trade routes of the Mediterranean.¹⁵⁸

Development of the Atlantic Façade of Europe

Beyond the Phoenician-Punic economic, technological, and cultural transformation of the Mediterranean—long a “Phoenician lake” between Indian and Atlantic Ocean operations—is another topic.

Receiving less attention is the formative development of the Atlantic façade by a Near Eastern maritime people. Barry Cunliffe, however, credits Phoenician “entrepreneurs from the Mediterranean intent on exploring the commercial potential of the ocean fringe.

In this way, Atlantic Europe, for the first time, confronted Mediterranean civilization.”¹⁵⁹

In a recent volume, Celestino (archeologist) and López (Classicist) collaborate to assert that the realm of Tartessos, under the stimulation of the colonizing Phoenicians (Orientalizing Iberia, state development, and alphabetical writing are discussed in the previous section), emerged as a third civilization in the West, along with Archaic Etruria and Greece. Moreover, Tartessos, in southwestern Spain and southern Portugal, became the first literate culture on the Atlantic shore.¹⁶⁰

Tyre, during the ninth century BCE, directed far west capital investment and settlement through its family-linked aristocracy at Gades (Cadiz). It was founded as an island colony and industrial center with a port(s) upon the Atlantic. Colonies were also planted well north into Portugal and south about 400 miles to Mogador, profiting from the trade of West Africa and the sub-Saharan.

Partnering with the Tartessian elite, the merchants of Gades negotiated mineral rights and the regional trade network. Southwest Iberia held the most abundant silver deposits known in the ancient world. While there existed protohistoric indigenous mining, the Phoenicians introduced iron tools—announcing the Iberian Iron Age—to replace stone tools, advanced smelting techniques and cupellation, and systematic operations, resulting in a boom of silver production.

¹⁵⁸ Aubet (2001), 3.

¹⁵⁹ Cunliffe (2004), 311. The first *direct* archeological evidence of operations in the Atlantic sphere arises from a late seventh or early sixth century BCE wreck. It is the only Phoenician merchant vessel to be excavated (2007-2011) in the Western Mediterranean. The diverse, four tons of finished goods and raw materials include northwest Africa elephant tusks and Baltic Sea amber: Polzer (2014), 241, 231, 232, 242.

¹⁶⁰ Celestino and López-Ruiz (2016), vii-viii.

Huelva, also a colony and port, had an important foundry. The Gades shipbuilding industry thrived for seven centuries into Roman times.¹⁶¹

The Gades complex, which would continue to flourish under Carthage and Rome, linked trade between the Mediterranean and Atlantic systems. Early on, fishing—as an industry—was established in the rich Atlantic waters.¹⁶² The colony as also served as a regional production center of Eastern luxury objects for export.¹⁶³

Starting in Punic times, the Gaditanian economy (with its Bay of Cadiz) concentrated on wine, salted fish (another new industry), and *garum* or fish sauce, an important seasoning in the ancient world. Specialized transport amphorae were manufactured for packing these products.¹⁶⁴

For Portugal, Ana Margarida Arruda identifies Orientalizing zones with peaceful Phoenician colonization, both coastal and inland, as far north as the Mondego River estuary (Santa Olaia). Specifically, the evidence proves agricultural development and salt exploitation.¹⁶⁵ Ideal for maritime-based commerce, the natural anchorages of Portugal could accommodate the large Phoenician-Punic ships. Indeed, an artifact discovery of these vessels, fitted out for the ocean, “would rank among the most important watercraft in the history of seafaring.”¹⁶⁶

Up the Atlantic coast, in the northwest corner of Iberia, early Phoenician trade was conducted with the Celts of tin-rich Galicia.¹⁶⁷ During the fifth century BCE, perhaps in conjunction with the Carthaginian expeditions to northwest Europe, the Portuguese colonies were reinvigorated (for example, an artificial harbor was constructed at Tavira).

Punic trade and exchange with Galicia became regular. Galician society originally rejected wheel technology for pottery, which was a female task, and the rotary quern stone, but it adopted Eastern jewelry techniques, sculpture (the strongest tradition in the Iron Age of Atlantic Europe), and such.¹⁶⁸

On the Iberian Atlantic façade, “Phoenician and Punic sailors named several prominent capes.”

¹⁶¹ Moore and Lewis (1999), 116-123; Moore and Lewis (2000), 30-33.

¹⁶² Cunliffe (2004), 48, 30: the tuna shoals about the Canary Islands appear central to this activity.

¹⁶³ Markoe (2000), 186: some were probably used as diplomatic gifts in exchange for Andalusian mineral rights.

¹⁶⁴ Rodríguez-Díaz (2014), 500. Viniculture had been introduced during the Phoenician period.

¹⁶⁵ Arruda (2009), 113-130.

¹⁶⁶ Wachsmann (2009), 243, 246.

¹⁶⁷ Rodríguez-Díaz (2014), 491.

¹⁶⁸ González-Ruibal (2006), 127-129, 137, 138, 144. The tin was probably shipped to Gades: Cunliffe (2004), 303.

As in the Mediterranean, the Atlantic coastal settlements and harbors (many still in use) were selected for their advantages relative to long-distance maritime commerce.¹⁶⁹

Rome would inherit both the Iberian and northwest African entrepôts and operations on the Atlantic.

In the Punic Atlantic, skilled Carthaginian sailors may well have discovered the Azores.¹⁷⁰ Seeking to expand its Atlantic markets, Carthage sponsored two recorded voyages of exploration.¹⁷¹

The fleet of Hanno coasted south, at least to Senegal, and perhaps as far as Cameroon. Himlico, embarking from Gades, sailed north, at least to northern Britany, and quite possibly across the Channel to the British Isles.¹⁷²

The broader Atlantic world, says Cunliffe, by 800 BCE, felt a two-fold Phoenician influence.

- One, the creation of market for manufactured goods and precious metals that entered the Atlantic trading networks.
- Secondly, from the port of Gades, the merchant shipbuilding technology of the Phoenicians was introduced. Knowledge of the sail, in particular, may have spread into northwest European waters.¹⁷³

Thus, respecting the emergence of the Atlantic Iron Age, c. 600 BCE, Jon C. Henderson suggests that “ship technology, perhaps courtesy of the Phoenicians, had suitably advanced to make long-distance maritime contacts easier and, more importantly, reliable.”¹⁷⁴

¹⁶⁹ González-Ruibal (2006), 34, 135, 133.

¹⁷⁰ Cunliffe (2004), 202. Sent out by Pharaoh Necho II, around 600 BCE, Phoenician sailors apparently completed a clockwise circumnavigation of Africa: *ibid.*, 300. A few scholars, note Moore and Lewis (1999), contend that the Carthaginians discovered the New World.

¹⁷¹ Moore and Lewis (1999), 214-215.

¹⁷² Roller (2006), 27-41. Northern evidence of the Punic language is found in Wales: Holmsted and Schade (2013), 4.

¹⁷³ Cunliffe (2004), 560, 561, 70. For example, Atlantic Late Bronze Age culture, extending north to eastern Britain, incorporated some Phoenician banqueting equipment, such as the roasting spit, into traditional elite feasting: *ibid.*, 281-283.

¹⁷⁴ Henderson (2007), 85-86. During Roman times, in France, Caesar ordered Mediterranean (originally Phoenician-Punic) style war galleys built for military operations, including an armada for his second expedition to Britain in 54 BCE: Cunliffe (2004), 71-72.

Punic Carthage: Further Contributions in the West

Carthage was founded on the fertile coast of central North Africa in the late ninth century BCE¹⁷⁵

Strategically, it stood on the axis of the east-west commercial route between the Levant and the Atlantic; likewise, it anchored the north-south route to mainland Italy.

Like Gades, in the beginning, a core mercantile elite from Tyre ruled the city-state. The Phoenician colony's seventh century BCE, prosperity was based on multidirectional trade and progressive manufacturing, such as ceramics, purple dye, and metalworking. Luxury goods were also created and exported.¹⁷⁶ Its forges produced surplus wrought iron and steel.¹⁷⁷

After Tyre fell, during the sixth century BCE, Carthage became fully independent.

The city-state led and expanded the western Phoenician colonies, founded new colonies,¹⁷⁸ and acquired the ports of Corsica.¹⁷⁹ There emerged a highly diversified economy: shipbuilding; fishing, also in the Atlantic area; mining investment and trade (Punic Sardinian, Punic Iberian); slave trade; wholesale export of foreign commodities; as well as their celebrated agriculture.¹⁸⁰ Glasswork and, perhaps, glassmaking were pursuits.¹⁸¹ The aforementioned British tin trade, also a product of earlier contributions from Phoenicia, was expanded and caravan routes reached Egypt.¹⁸²

Punic Carthage (550-146 BCE) was a mercantile and political superpower in the West; the republic was on a level with the Eastern powers and Greece.¹⁸³

Indeed, the maritime economy of Carthage—the world's greatest sea power—was based upon and regulated by a system of written commercial agreements. Over 250 years of peace with budding Rome involved four treaties. The first was signed in 509 BCE,¹⁸⁴ to become Rome's earliest authentic record.¹⁸⁵

¹⁷⁵ Aubet (2008), 247.

¹⁷⁶ Miles (2010), 62, 67, 65.

¹⁷⁷ Kaufman (2016), 46-47.

¹⁷⁸ Dietler (2008), 8. Still, the fleets of the Phoenician cities were not destroyed, later passing into naval service under the Persians.

¹⁷⁹ Hoyos (2008), 12.

¹⁸⁰ Markoe (2000), 103-105.

¹⁸¹ Henderson (2013), 222.

¹⁸² Moore and Lewis (1999), 217, 214. Land routes to sub-Saharan Africa in antiquity have yet to be proven: Pappa (2013), 174-175.

¹⁸³ Hoyos (2010), 57-58.

¹⁸⁴ Markoe (2000), 54, 102, 190.

¹⁸⁵ Wedgwood (1985), 99.

Punic maritime capitalism inherited the Phoenician model of international managed trade with state-owned and private enterprise. Carthage's business elite performed the banking role: major investment, financing bulk trade, insuring distant voyages, and arranging naval protection of convoys in the form of triremes.¹⁸⁶

Governmentally, Punic Carthage is usually described as an aristocratic republic or oligarchy. The constitution (now lost) reflected the hierarchical and tight-knit business structure of the city-state.¹⁸⁷ Gruen notes that the Greeks held the Carthaginian constitution in high regard.

Aristotle, in the *Politics*, delivers praise for the merit-based document. The Classical philosopher compares it with the respected Spartan constitution (mentioned above, Sparta's may be based upon a Phoenician prototype).

How would the Roman Republic's constitution compare?

For Hellenistic political thinkers, "Carthage, as is clear, supplied the principal criterion by which to measure success."¹⁸⁸

The peak of Carthage's power was during the fourth century BCE. Once dependent on imported food supplies, the metropolis now exported its agricultural surplus, especially wheat. Consequently, Carthage became an agrarian empire, as well as a maritime power. Its prosperity is validated by vast reserves of gold and silver.¹⁸⁹ Chandler's (1987) census for 200 BCE, ranks Carthage and Rome, with populations of around 150,000 each, the largest cities in the West.¹⁹⁰

Carthage was likely the richest city on earth: the view of the ancients.¹⁹¹ The Carthaginian agricultural revolution began during the fifth century BCE.¹⁹²

¹⁸⁶ Moore and Lewis (1999), 181, 218, 201-212.

¹⁸⁷ *Ibid.*, 202.

¹⁸⁸ Gruen (2011), 119-120. Indeed, "Carthaginian achievements on the intellectual front indeed earned high esteem in the cultivated circles of Greeks and Romans alike": *Ibid.*, 137.

¹⁸⁹ Markoe (2000), 105, 103: for example, Punic Carthage issued an "extensive gold coinage." Interestingly, Elayi (2011) observes that invented in Persian-period Phoenicia were the first yearly dated coins.

¹⁹⁰ Chandler (1987), 462.

¹⁹¹ Hoyos (2010), 59.

¹⁹² Miles (2010), 80-81. Agriculture of the Punic world, stretching to the Atlantic, expanded inland from the original Phoenician cities. Punic settlers, interacting with the indigenous inhabitants, brought iron tools, expertise, technologies, and capital investment, especially for wine, oil, and cereal production. Rural products were exported through the extensive Punic—Carthage and Gades (Cadiz)—maritime network: Van Dommelen and Bellard (2008a), 232-239.

Large-scale and scientific, it embraced the whole range of cereal production; vegetables; animal husbandry; viticulture; fruit, nut, and olive tree cultivation; and, beekeeping.¹⁹³ Irrigation methods from the homeland were employed.¹⁹⁴

Mago's authoritative, twenty-eight volume work on agricultural science and economy was translated by the Greeks and Romans.¹⁹⁵ Mainland Italy adopted such crops as the olive,¹⁹⁶ pomegranate, and the fig. Along with Punic Spain, Italy received from Carthage advanced (Levantine) agricultural technology: the *plostellum Punicum*, a mechanical threshing machine.¹⁹⁷

Carthaginian nautical achievements loom large in maritime history. Ship construction was standardized: prefabricated components were marked with Punic alphabetical letters, allowing for the rapid assembly of large numbers of craft.¹⁹⁸

Ending the reign of the trireme galley, the Carthaginians were the "pacesetters in naval technological innovation throughout the fourth century BC. They had been first to develop the quadrireme..." or polyreme. Thereafter, the Greeks of Sicily introduced the quinupramine; however, the Carthaginians substantially improved upon its oar housing, strength, and width of deck.¹⁹⁹ Polyremes did not exceed the three banks of oars of the trireme; but, expanded was the number of rowers per oar.²⁰⁰

The giant Imperial Roman round ship for grain appears to derive from the Phoenician-Punic merchant ship.²⁰¹ The Romans also adopted pegged mortise-and-tenon joints for their ships (and oil presses), which they called "Phoenician joints."²⁰² Invented was the dry dock for ship repair.²⁰³ Designed during the Punic Wars as a "system of optical signaling" were the first true lighthouses.²⁰⁴

Total destruction of Carthage ended the Punic Wars in 146 BCE (the same year that Corinth was also razed to the ground by the Romans).²⁰⁵

¹⁹³ Harden (1962), 139-140.

¹⁹⁴ Hoyos (2010), 64.

¹⁹⁵ Lancel (1995), 278. Among Mago's specialized topics are grafting techniques and cattle breeding: *ibid.*, 276, 279. Hoyos (2010), 65-66: Himlicar was another contemporary writer on agriculture.

¹⁹⁶ Janick (2005), 255-320.

¹⁹⁷ Van Dommelen and Bellard (2008b), 13; Lancel (1995), 277, 273.

¹⁹⁸ Bartoloni (1988b), 76-77; Lancel (1995), 131-132.

¹⁹⁹ Miles (2010), 177-178.

²⁰⁰ Paine (2013), 111-112.

²⁰¹ Woodman (1997), 21. The Phoenician-inspired Roman grain ship evolved during the Middle Ages to become a true, full-rigged, maneuverable sailing ship: the carrack, *ibid.*: 45, 59.

²⁰² Sleeswyk (1980), 243-244.

²⁰³ Miles (2010), 92.

²⁰⁴ Giardina (2010), 5-6.

²⁰⁵ Wedgwood (1985), 101. Although Carthage lost the Punic Wars (264-146 B.C), the military tactics of Hannibal are studied by modern strategists.

As a result, the libraries of the city were lost; they held, according to contemporaries, books on history, agriculture, and religion.²⁰⁶

Henceforth, Rome annexed the Punic territories in the Mediterranean, North Africa, and Iberia. The future empire gained the vast Phoenician-Punic developed agricultural, industrial, and mining, as well as Atlantic operations. Furthermore, recent studies unveil Carthage as a model of imperialism for Rome: apparent transfers include treaty formulation, military recruitment, tax organization, agricultural exploitation, and naval technology.²⁰⁷

Roman Carthage: Promoting Latin Christianity

Julius Caesar launched the rebuilding of the vital ports of Corinth and Carthage.²⁰⁸

Roman Carthage grew into a provincial capital and the focal point of the developing Latin (Western or non-Greek) Church. Earlier, in 64 BCE, Rome annexed Phoenicia. The Phoenicians would be among the first Gentiles to adopt Christianity.²⁰⁹

In North Africa, Punic elites were among the “most upwardly mobile in the empire” and well-established in the Roman senate; the able Septimius Severus rose to become emperor from 193-211 CE,²¹⁰ and the Severan Dynasty lasted until 235. He likely founded the famous law school in Beirut.²¹¹

Carthage, a center of Classical learning, produced the first outstanding Latin Christian author, Tertullian (c. 160-230 CE): the original Western Church father. Tertullian is credited with shaping the theological vocabulary and thought employed in the Latin language.²¹² The distinguished theologian St. Cyprian became bishop of Carthage in 248 CE. Cyprian suffered martyrdom, just as Saints Perpetua and Felicitas did for their orthodoxy.²¹³

Ultimately, the chief architect of Latin Church theology was St. Augustine (354-430 CE), Bishop of Hippo. Having a Christian mother, St. Monica, in Numidia, his background was Punic; he appreciated the still-spoken language.²¹⁴

²⁰⁶ Lancel (1995), 358-360.

²⁰⁷ See the overview of Quinn (2017).

²⁰⁸ Wedgwood (1985), 111.

²⁰⁹ Acts 15:3

²¹⁰ Miles (2010), 371, 372. Some Punic Christians were serving in the senate and imperial court: Barnes (1971), 69-71.

²¹¹ Of Phoenician origin were the prominent Roman jurists Ulpian and Papinian.

²¹² Copleston (1985), vol. 2, 23-25.

²¹³ Barnes (1971), 192, 79.

²¹⁴ Lancel (1995), 437.

Augustine was educated and taught in Carthage. Subsequently, St. Ambrose baptized him in Italy, and Augustine began to publish extensively.

A profound influence upon Western civilization, “in order to understand the currents of thought in the Middle Ages, a knowledge of Augustinianism is essential.”²¹⁵

Conclusion: The Quickening of Western Civilization

Phoenicia’s cultural interaction with the Occident spanned two millennia.

Led by Bronze Age Byblos, the region originated the true sailing ship, navigation by the North Star, maritime law, and so forth. The voyages of the Phoenicians constitute the “first systematic use of the sea.”²¹⁶ Flowing out of their commercial activity of the Bronze and Iron Ages are foundational contributions to the Western world.

As distilled by William H. Hallo, the basic qualities of civilization are cities, capital, and writing.²¹⁷ Part of the Fertile Crescent, Phoenicia with its thriving city-states possessed all three elements. Peaceful, long-distance trade and cultural exchange was undertaken. Its merchants, artisans, and agents promoted urban growth, made capital investments, and spread literacy.

All in all, the enduring Phoenician influence—representing the urbanized Near Eastern heritage—both stimulated and fostered Western civilization.

Bronze Age sea trade brought Phoenician merchants to Minoan Crete before and during its height (c. 1950-1450 BCE). Consequently, embryonic Western civilization borrowed important Eastern concepts: monumental building techniques; luxury products of gold and ivory (later, glass); advanced sailing ships; monetary silver; weights and measures; and an administrative model, including clay tablets, seals, accounting methods, and syllabic (perhaps Old Phoenician) writing that became Linear A. The Late Bronze Age Mycenaean Greeks conquered, but also adopted, the Minoan civilization. They absorbed further Eastern refinements (Orientalization), before the downfall of their society, c. 1200 BCE.

The Early Iron Age saw Phoenician expansion in the West. Leadership of the city-states was assumed by Tyre. Tyre’s monarchy (public) and merchants (private) comprised a mixed economy with capitalistic features.

²¹⁵ Copleston (1985), vol. 2, 40-50.

²¹⁶ Braudel (2001), 188.

²¹⁷ Hallo (1996), 1.

During the tenth century BCE, they began to create an intercontinental mercantile network. Colonies were first planted on Cyprus, then Carthage was founded in 814 BCE; settlements also stretched to the Atlantic coasts of Africa and Europe, which they discovered.

From Greece to Portugal, the Phoenicians bore the cultures of the core Mesopotamian and Egyptian civilizations. Manufactured goods (luxury and common), bulk products, technologies, and information, as well as cultural, architectural, and artistic patterns were transferred across the Mediterranean.

Well before Classical Greece and Rome, there arose macro-trends associated with Phoenicia: globalization, capitalism, and multinational corporations.

In *The Origins of Globalization*, Moore and Lewis observe that the achievement of Tyre (and Carthage) was to expand world trade and at the same time to shift the center of finance and high culture westward.²¹⁸ *The Cambridge History of Capitalism* is introduced by Larry Neal. He cites the primacy of Phoenicia's market-driven capitalism and long-distance trade reaching the Atlantic.²¹⁹ Moore and Lewis, in *Birth of the Multinational*, hold forth that the merchants of Tyre created the first multinational business organization on an intercontinental scale.²²⁰

These trends originated in Mesopotamia, yet it was the commercial activities of the Phoenicians that laid the economic and cultural bases of the Western world.

Employing a world-systems approach, the Sherratts delineate the economic growth of the West. They notice that c. 1000 BCE, Europe and its Mediterranean region were in essence prehistoric. Granted, "the centers of future growth were already evident [proto-urban Greece, Italy, and Iberia]; but what articulated them into a single interacting system was the input of capital from the east."

In sum, drawing territories together were Phoenicia's large merchant ships, monumental harbors, and urban economy: monetary silver, slavery, and manufacturing.²²¹ The intercontinental network of the Phoenicians commenced the development of the Atlantic façade of Europe and laid the foundation for the Roman Empire's Mediterranean as one economic, political, and cultural unit.

Between the protohistoric and Classical eras was the decisive transitional epoch known as the Orientalizing horizon (eighth and seventh centuries BCE).

²¹⁸ Moore and Lewis (2009), 113, 111.

²¹⁹ Neal (2014), 7.

²²⁰ Moore and Lewis (1999), 69.

²²¹ Sherratt and Sherratt (1993), 374-375.

Phoenician mercantilism, capital, and routes, along with cultural elements, i.e. alphabetical script, encouraged European state formation: first, in the eighth century BCE, Aegean, then in seventh century Italy and Spain.²²²

Classical historian Burkert identifies the expansion of both maritime commerce and the alphabet (literacy) by Phoenicia as the determining factors that “caused the center of civilization to shift westward from the Near East to the Mediterranean.”²²³ First arose the civilizations of Carthage and Greece arose, followed by Etruria, and, finally, Rome.

Indeed, from the Phoenicians early Archaic Greece received alphabetical writing—and the book—forming the basis of the West’s alphabets (Latin and Cyrillic); shipbuilding technology, navigation skills, and the example of overseas colonization; and, commercial contracts (also in Italy). Brought to Greece, Italy, and Iberia were weights and measures, monumental art and architecture, and fine luxury goods as models that influenced early European art.

The alphabet is considered the preeminent contribution of the Phoenicians for the establishment of Western civilization.

Clearly, the Greek intellectual achievement would not have been possible, nor could it have been recorded for future generations of literate Europeans without the egalitarian script. Similarly, it allowed for both Hebrew and Greek writing of the Christian Bible. Alphabetical order is used to organize information. Furthermore, the letters are a phonetic code that stimulate both numbering and rational and abstract thought.

Punic Carthage (550-146 BCE) became a mercantile, political, and military superpower in the West. Among its introductions were large-scale agricultural methods and technologies, horticultural specialization, and new crops, as well as nautical innovations. The city-state set a constitutional standard in the ancient world. Imperial concepts were also transferred to Rome. The destruction of Tyre (Alexander) and Carthage (Scipio) included the loss of their records, archives, and libraries.²²⁴ These collections could be substantially older than the Hellenistic library in Alexandria.²²⁵

Afterwards, Roman Carthage promoted Latin Christianity. Above all, it produced the first outstanding, Tertullian, and the most influential, St. Augustine, Western Church theologians. The Protestant reformers, too, drew heavily upon Augustine’s conservative writings.

²²² *Ibid.*, 367, 369.

²²³ Burkert (2004), 6.

²²⁴ Markoe (2000), 11.

²²⁵ Lancel (1995), 358-359.

To conclude, the Phoenician (Iron Age) specialist, Niemeyer, abstracts how this most ancient people, in effect, sparked Western civilization.

- First, the specific experience of Archaic Greece: the Phoenician transfusion of Eastern goods, technologies, and ideas that, in turn, became the foundations of Greco-Roman civilization.
- Secondly, the pan-Mediterranean influence: “The eminent role played by the Phoenician city-states in the dissemination of urban civilization, in the propagation of technical innovations, in the distribution of new [aristocratic] lifestyle paradigms and ‘modern’ economics.”²²⁶

The above contributions span David Wilkinson’s central civilization/world-system. Early modern European expansion, followed by Westernization—fittingly with large ships, capitalism, alphabetical writing, and colonization—spread the legacies of Phoenicia.

²²⁶ Niemeyer (2004), 246, 250.

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