

A HISTORY OF WORLD CIVILIZATION

DR. MARTIN

"ORIGINS AND DEVELOPMENTS OF THE SCIENCES IN
THE AXIAL PERIOD OF HISTORY."

March 9, 1970
Roger L. Meyer

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ORIGINS AND DEVELOPMENTS OF THE SCIENCES IN THE AXIAL
PERIOD OF HISTORY.

All of the basic inventions and advances of civilization were made long before Greece ARRIVED AT MATURITY. But during the period of the fifth century, B.C., there was in Greece a rebirth of science and knowledge which is almost equal to the Renaissance in its effect on the world, and perhaps even more significant! "The traceable history of progressive science divided naturally into two main periods. One is the active Greek period from about 600 B.C. to about A.D. 200. The other is the active modern period from about 1450 onward..." (Encyclopedia Britannica, Vol. 20, p. 115)

"When you reflect that during these few years the Greeks were able to lay the foundations for the entire fabric of our own modern Western civilization, not only within the realm of politics and science, but also within that of the arts, (and that in the widest possible sense of the word)..." (The Arts of Mankind, pp. 80-81, by H. W. Van Loon.)

Most people today do consider Greece as the foundation of our modern civilization, but it can easily be shown that much of the Greek culture and science came directly from, or was greatly influenced by the Babylonians.

"Investigation of the ancient empires, notably of the Babylonian, had revealed a far more extensive and systematic accumulation of astronomical and mathematical information than was formerly suspected. Science can therefore no longer be called a Greek product." (Ibid.)

Astronomy - The science of astronomy aptly demonstrates this fact. The Greeks "owe a lot to Babylonian astronomers and so on as a basis of their knowledge." (The Creative Centuries, H. J. Mandall, p. 29.) And, "Doubtless the Greeks borrowed much of the raw material of mathematics and astronomy from the observations of the Sumerians, Babylonians, and Egyptians...Here the Greeks merely carried to a greater perfection the work of the Babylonians." (Ibid., p. 33.)

"It is, however, important to recall that to the Babylonians we owe exact measurement of the lunar and solar cycles, the tracing of the paths of the planets, the division of the circle into 360 degrees and the designation of constellations, notably, those of the zodiac. (Encyc. Brit., Vol. 20, p. 115.)

Here we can see that astrology was closely connected with astronomy, a great deal of which the Greeks learned directly from the Babylonians.

"The study of astromancy (astrology) and belief in it, as part of astronomy, is found in a developed form among the ancient Babylonians, and directly or indirectly through the Babylonians spread to other nations. It came to Greece about the middle of the fourth century B.C. ..." (Encyc. Brit. Vol. 2, p. 795.)

There were many Greeks who studied in Babylonian schools. "Greeks who went to study in the Babylonian schools went partly for the sake of astrology." (The Greeks in Bactria and India by W.W. Tarn.)

Here is plain, bold evidence that besides astrology and astronomy, the Greeks were studying many subjects in Babylonian schools! This plainly shows where much Greek knowledge came from--Babylon!

But for more evidence, although (according to Xenophon) Socrates (470-347 B.C.), ~~considered astronomy~~ "anwstocof Bama," his pupil, Plato (427-347 B.C.), like his predecessors in Greece, Babylonia, and Egypt, "...for astronomy...had a high regard, and by his followers, mathematics became identified with astronomy." (Encyc. Brit., Vol. 20, p. 115.)

"Hipparchus, 146-127 B.C., was the greatest astronomer of antiquity. He erected at Rhodes the first recorded observatory...He made numerous observations and collated the records of earlier Greek astronomers and of their Babylonian predecessors to see if astronomical changes had taken place in the course of the ages." (Ibid.)

Philosophy - Turning now to the subject of philosophy, "'The father of philosophy' is the title given to the statesman Thales of Miletus, 636-546 B.C. Having learned from the Babylonians..." (Civilization Past and Present, Rev. Ed., p. 51.)

Here we can clearly see that philosophy was greatly effected by the Babylonians. If the 'father of philosophy' learned and was instructed and influenced by the Babylonians, isn't it a logical conclusion that all philosophy would have Babylon as its roots? Thales was "...a merchant who travelled to Egypt, where he obtained a knowledge of geometry, and to Mesopotamia, where he studied astronomy." (A History of the Sciences, S.F. Mason, p. 14.)

Babylon had its effect on Thales' successors as well. The second Miletian philosopher was Anaximander, 611-547 B.C. The third was Anaximenes, 550-456 B.C. Zeno was also a fifth century philosopher. Anaxagorus was a philosopher and geometrician, 500-428 B.C. Two other better known philosophers were Philolaus of Tarentum, 480-400 B.C., and Pythagorus, 582-500 B.C., also a mathematician who began the philosophical Pythagorean schools.

Biology - "The Pythagorean schools of Southern Italy also had their biologists and anatomists. The first of note was Alcomaeon of Croton, who flourished in 500 B.C." (Ibid., p. 19.)

Aristotle marks a turning point in the history of the development of biology. He produced many Ecological observations, and his works were developed by his successors. His pupil, Theophrastus, 327-287 B.C., "continued the biological work of his master describing and classifying numerous species of plants. Many of the names given to plants by Theophrastus survive in modern botany..." (Ibid., p. 50.)

Aristotle also "...investigated and wrote brilliantly in such diverse fields of art; biology, mathematics, astronomy, physics, psychology, rhetoric, logic, politics, ethics, and metaphysics." (Civilization Past and Present, pp. 52-53.) But though he "...devoted his incomparable genius to systematizing and organizing the whole area of knowledge. His earliest and...his best efforts were in biological topics." (Encyc. Brit. Vol. 20, p. 115.)

Agriculture - Theophrastus, previously mentioned, was a writer on Botany, "...and his works also contain interesting remarks on manures, the mixing of soils, and other agricultural topics...The agriculture of classical ages was slightly more developed in so far as the husbandman of Greece and Rome was less able to leave to nature the fertilization of the soil." (Encyc. Brit., 11th Ed., Vol. 1, p. 389.)

Undoubtedly, the reason the husbandmen were less able to leave fertilization to nature is that they were following the 'way of Cain' - that is, forcing the ground. They were 'forced' to study how to get more from the soil since they weren't obeying natural laws.

Math - Turning to the sciences of math and geometry, etc., we find Thales of Miletus of the sixth century B.C., previously mentioned in conjunction with philosophy, who had visited Mesopotamia and Egypt. "He made certain geometrical discoveries, though the Greeks no more invented geometry than they did astronomy." (Encyc. Brit., Vol. 20, p. 115.) Rather, it came to the Greeks from Mesopotamia, Thales and his Greek contemporaries only generalized.

"Hippocrates of Chios, the Mathematician (450 B.C.) was first to compose a work on the elements of geometry. However, as early as the 6th century B.C., Pythagoreans had given the word mathematics - which first meant simply 'learning' - its special relationship to number." (Ibid., p. 115.) And, before them was the Greek philosopher from Samos, Pythagoras (582-500 B.C.) whose theorem in geometry is learned by nearly every school boy. Many of the great philosophers were also mathematicians.

Medicine - What about medicine? "In early Greek medicine there were three main strands. First, and perhaps earliest, there was the medicine of the temples dedicated to Aesculapius, the god of medicine. Secondly, there was the philosophical Pythagorean school of southern Italy, and thirdly, there was the more practical Ionian school of Hippocrates...dating from the fourth century B.C." (A History of the Sciences, p. 21.)

Hippocrates is well known as "the father of medicine." (460-327 B.C.). It is acknowledged however, that the Egyptians had an established medical practice. "From the most ancient testimonies, sacred and secular, Egypt, ... was foremost among the nations in this most human of studies purely physical. Egypt was the earliest home of medical and other skill for the region of the Mediterranean basin..." (Smith's Bible Dictionary, "Medicine," p. 389.) However, it must be said that it appears that medicine in Egypt was a mere art or profession, and not a science as with the Greeks. But Pliny (vii. 57) says that the Egyptians claimed ownership of the invention of the art of healing. Jeremiah (45:11) mentions the "many medicines" of Egypt. King Asa in II Chron. 16:12 "sought not to Jehovah but to the physicians." Many other scriptures allude to the interest that Solomon had in remedial treatment. It is known that Cyrus and Darius both sent for physicians and surgeons from Egypt. Hippocrates himself, who wrote a book on "ancient Medicine," seems to have had access to foreign sources. So we see that medicine by no means originated with the Greeks.

History - Herodotus of Helicarnassus (414 - 425 B.C.) is known as the father of all history. However, "...the first historians were the logographers of Ionian cities; men who carried their enquiry...in a study of the world around them. They were the forerunners of the 'father of history,' Herodotus." (Encyc. Brit., Vol. 11, p. 594.) Herodotus also wrote about the ethnologies of peoples.

But the first early scientific historian was Thucydides, 460 - 400 B.C. Aristophanes and Demosthenes were late historians.

Art - Concerning art, again the 6th century was the stage for Greek predominance, but "...the Greeks still borrowed most of their decorative forms, ... from the old-world empires of Egypt and Babylon. (Encyc. Brit., 11th ed., Vol. 12, p. 476.)

Architecture - The immediately foregoing statement about art would also be true of architecture, that many forms were borrowed from old-world Egypt and Babylon.

But in Greece architecture reached its zenith in the 6th century B.C.

Pericles and Phidias, famous architect and sculptor, were responsible for the Acropolis. The sculptures of the Parthenon were also under his supervision. (The Arts of Mankind, H.W. Van Loon, p. 101.)

In the Age of Pericles - fifth century B.C. - a famous sculptor by the name of Myron created the well-shown "Discus Thrower."

In the ninth century B.C., Homer's two epics, the Iliad and the Odyssey were completed. By the fifth century, the tragedy and comedy had evolved and such playwrights and dramatists as Aeschylus (528-456 B.C.), Sophocles (496-406 B.C.), Euripides (480?-406? B.C.), and Aristophanes (445-385 B.C.) take prominence. Polygnotus, a

painter of the fifth century, and poets such as Archilochus, Sappho, and Alcaeus also make their showing.

Military Tactics - "And warfare, as practised by the Greeks, was really a superior form of athletics." (Ibid., p. 84.) To the Greeks, a healthy fight was a delightful experience.

To mention only perhaps the most famous tactician, Philip was "A master military strategist and a shrewd politician... united Macedonia and then turned to the Greek city-states...." (Civilization Past and Present, p. 57.)

Religion - Gautama Buddha (563?- 483?B.C.), the founder of Buddhism, "...stands out in history as one of the most profound influences in the life of mankind." (Ibid., p. 96.)

Confucianism - "The most famous and influential of all Chinese philosophers was Confucius." (551-479 B.C.) (Ibid., p. 105.)

Shintoism - "According to Japanese folklore, the first emperor of Japan - Timmu Jenno - descended from the Sun Goddess and became emperor in 660 B.C. "...Shintoism centered primarily on the Sun Goddess." (Ibid., p. 346.)

Taoism - "Of Laot-tzu, the most famous person associated with this school, we know very little. Traditionally, he is supposed to have been an older contemporary of Confucius,..." (Ibid., p. 107).

Zoroastrianism - "The religion of the Persians was founded by a prophet named Zoroaster (or Zarathustra)...date of his birth... 660 B.C.)" (Ibid., p. 34.)

In his book, A History of the Sciences, Mr. S.F. Mason calls these religions "approximate contemporaries." (p. 15.) He also includes Amos of the Bible. So here we see the birth of 11 of the major religions of our present civilization.

Nations - As for the nations, all originated in the 700's; Babylon in 747 B.C., Greece in 716 B.C., Rome in 753 B.C., Japan in 660 B.C., and Europe in the 7th and 8th centuries B.C. "Mighty empires...arose almost simultaneously in China, in India, and in the West." (The Origin and Goal of History, Karl Jaspers, p. 5.)

In conclusion, we have seen that nearly every aspect of civilization, which is the basis of our modern civilization, is a continuation of the Babylonish system perpetuated mainly through the vehicle of Greek culture. And we have seen that the beginning of our civilization of today was in the sixth century B.C. - the Axial Period.

The "Axial Period" its beginning and consequences.
A brief review of Karl Jasper's "The Origin and Goal
of History," German ed. 1949, supported by my own (Dr. MARTIN'S)
comments.

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T. H. H.
"It would seem that the axis of history is to be found in the
period around 500 B.C., in the spiritual process that occurred between
800 and 200 B.C. It is there [about 500 B.C.] that we meet with the
most deepcut dividing line in history. Man, as we know him today
(mankind and his present civilization), came into being. For short,
we may style this [this exact time period in world history as] the
'Axial Period'" (page 1).

God told Jeremiah - a prophet not only to Judah and Israel, but whose
administration reached out and embraced "the nations" and "the kingdoms of the
world (Jer. 25:15 ff.) - that his special commission was to involve the totality
of the world - his prophetic influence was to be universal in scope, his prophetic
statements were to be profoundly effective to the ends of the earth.

"See, I have this day set thee (Jeremiah) over the nations and
over the kingdoms, to sort out, and to pull down, and to destroy, and
to throw down, (as well as) to build, and to plant" (Jer. 1:10).

The 'Axial Man' prepared by God as His spokesman for this 'Axial Period'
in the world's history was Jeremiah.

* Jeremiah was authorized and commanded to prophesy the 'rooting out, the pulling
down, the destroying, and the throwing down' of the nations and kingdoms of the
then existing civilization - a social structure which had existed since the Deluge
of Noah. What does Professor Jasper observe of Jeremiah's time? Did God mean what
He said?

"The thousands of years' old [ancient] civilizations are EVERYWHERE
BROUGHT TO AN END by the Axial Period, which melts them down,
assimilates them or causes them to sink from view" (p.6).

"It was an age of simultaneous destruction and creation" (p.5).

Reminder: Jeremiah was "to destroy" and "to build and plant."

A review of Jeremiah 25 will show his involvement in the overthrow of the
ancient world. Or, as Jasper again states it -

"The conception of the Axial Period furnishes the questions
and standards with which to approach all preceding and subsequent
(historical) developments. The outlines of the preceding civilizations
DISSOLVE [i.e. ancient Israelite civilization, Assyrian, Egyptian,
Hittite, Elamite, Midianite, Phoenician, Philistine, Ammonite, Moabite,
etc. - all ancient civilizations DISSOLVE]. The peoples that bore
them [the earlier civilizations] VANISH FROM SIGHT as they join in
the movement of the Axial Period" (p.8).

CLASSICAL HISTORY BOOK (THE AXIAL PERIOD)
"The Mythical Age, with its tranquillity and self-evidence, was at an end" (pp.2,3).

The 'Axial Period' is so decisive and so distinctly a wedge between the ancient civilizations (so prominent in early history) and the new, modern civilizations of Persia, China, India, Greece, Rome and Europe, that Professor Jasper, in his review of the period, almost believes that a great external power which we can only call 'God' must have had a hand in bringing in this new and totally different civilization - the social system that we are accustomed to today. Note -

"The Axial Period [the key to history], which grows more mysterious the more closely we examine it.

"It might seem as though I were out to prove (the events of the Axial Period) A DIRECT INTERVENTION on the part of the DEITY, without saying so openly" (p.18). DOES ANYTHING TO PROVE IT

The fact is, there was DIVINE INTERVENTION - the evidence is so overwhelming that even Jasper has to mention the obvious appearance of it. Or, as he again states it -

"The Axial ^{HUMAN} Period is in the nature of a MIRACLE, in so far as no really adequate explanation of it (he means no human explanation) is possible within the limits of our present knowledge" (p.18).

DOES PROVE HIMSELF TO HUMANITY IN MILLIONS OF WAYS - WHICH WE TAKE FOR GRANTED BUT, TO IDENTIFY WHO IT IS TAKES REVELATIONAL PROPHETIC - SPECIFIC - NOT JUST THE MIRACLES.

All later history is measured by what emerges from the 'Axial Period' - the period which commences from the Neo-Babylonian Empire. To Jasper, it seemed as if all later history is essentially a ramification and development of that standard begun IN the Axial Period i.e. with Babylon, though he poses this proposition with a question -

"If the Axial Period gains an importance with the degree to which we immerse ourselves in it, the question arises: Is this period, or its creation, the yardstick FOR ALL THAT FOLLOWS? (p.20). IS IT AN ALTERNATIVE

Though Jasper's has the feeling that a 'mechanical affirmative' cannot be given to this important question, the facts must remain strongly in its favour. But leaving Jaspers aside, to this question, the prophet Daniel leaves us in no doubt. Babylon became the HEAD of gold - the fountain-head of a new civilization, a new world, our world, the present world's STANDARD (Dan.2). The New Testament reconfirms Daniel's interpretation by calling our present civilization 'Mystery Babylon' - not 'Mystery Persia, Greece or Egypt.'

It was at the end of this 'Axial Period' (around 500 B.C.), that our own 'world' began. Note:

"In this age (the Axial Period) were born the fundamental categories within which WE STILL THINK TODAY, and the beginnings of the world religion, BY WHICH HUMAN BEINGS STILL LIVE, WERE CREATED. The step into UNIVERSALITY (i.e. CATHOLICISM) was taken in every sense" (p.2).

"For the first time philosophers appeared" (p.3).

"What we later called reason and personality (our present reasoning and personality standards) was revealed for the first time during the Axial Period" (p.4).

Our present 'world' came into being - from China to the New World - all at once and directly out of this Axial Period. Remember, Jeremiah was "to build and plant" as well as "to destroy" the old order.

"Mighty empires, made by conquest, arose almost SIMULTANEOUSLY in China (Tsin Shi hwang-ti), in India (Mawrya dynasty) and in the West (the Hellenistic empires and the Roman Empire). Everywhere the first outcome of the collapse [of the ancient world in the Axial Period] was an order of technological and organisational planning" (p.5).

All at once, in the Sixth Century B.C., new beginnings began to occur everywhere throughout the world - new beginnings emerged out of chaos. Re-discoveries came forward as bases for the new world civilization which was developing at the end of the Axial Period.

"It cannot possibly be an accident that, six hundred years before Christ, Zarathustra in Persia, Guatama Buddha in India, Confucius in China, the prophets in Israel, King Numa in Rome and the first philosophers in Hellas made their appearance PRETTY WELL SIMULTANEOUSLY as reformers of the national religion" (Lasaulx, quoted by Jasper, p.8).

Viktor von Strauss, in his commentary on Chinese history, said:

"During the centuries when Lao-tse and Confucius were living in China (Sixth Century B.C.), a strange movement of the spirit passed through ALL civilized peoples. In Israel Jeremiah, Habakkuk, Daniel and Ezekial were prophesying and in a renewed generation (521-516) the second temple [a new beginning for Judaism] was erected in Jerusalem. Among the Greeks Thales (the first real Greek astronomer) was still living. In Persia an important reformation (really, a new beginning) of Zarathustra's ancient teaching seems to have been carried through, and India produced Sabyamuni, the founder of Buddhism" (quoted by Jasper, pp.8,9).

The whole world - our world, the world of today - grew up all at once.

The Sixth Century saw the birth of our present civilization - socially, politically, economically and theologically. As Daniel said to Nebuchadnezzar, after reading Jeremiah's prophecies and being personally motivated by God's Holy Spirit, 'ye

"The mystery of the simultaneous inception (all around the world) of the Axial Period, appears to me to be situated at a much deeper level than the problem of the birth of the ancient civilizations (i.e. the really ancient, those which began immediately after the Flood). In the first place, the simultaneity (of this new movement in the Axial Period) IS MUCH MORE EXACT (i.e. clearly and precisely determinable) and, in the second, it relates to spiritual - historical developments (i.e. the involvement of our present religious philosophies) in the whole conscious thinking aspect of humanity" (p.14).

Thus, in the study of History, with the Sixth Century B.C., we observe our own world, the world which all of us are familiar with today. The old civilizations, before the Axial Period, would be unfamiliar to us if we were transported back to them. But when our world took root from the Axial Period, Babylon appearing at the 'head' giving us our own society of which we are most acquainted.

"That which is familiar to us ONLY STARTS WITH THE NEW AGE OF THE BREAK-THROUGH (i.e. the Axial Period)" (p.52).

Though we may not like the outcome of this time period when 'the times of the Gentiles' are pre-eminent, and with Babylon as the fountain source of it all, it should be remembered that it was God who caused the world to be reborn anew with Babylon at the head. And all peoples on earth have been profoundly influenced by this 'Babylonian' tree.

"The Axial peoples are the Chinese, Indians, Iranians, Jews and Greeks." These (Spartan) are the only civilizations that have been destroyed.

"To them (the aforementioned peoples) it (the Axial Period) was a SECOND BIRTH, so to speak, and through it they laid the foundations of man's spiritual being and his (present) history so called" (p.51).

Though our age all began at Babylon in the Sixth Century B.C., it has been the Chinese, Indians, Iranians (i.e. Indo-Europeans), Jews, ^{NEW} Israelites, Greeks and Romans which have carried the Babylonian torch down to our own day. But, another 'Axial Period' is due to arrive. Jesus Christ will soon step in with His own. The Babylonian image, which has governed and influenced the world since the Sixth Century B.C., will be replaced by the Kingdom of God. Further new birth is awaiting the world. Until then, 'Babylon' has a little longer to exist.