Patterns of world history vol 1

History

“ Humans and Ideas” Some of the most powerful ideas humans developed during early divination of 3000 BCE to 618 CE have been about techniques to improve living. New technological ideas from the invention of the wheel to the hand crank pump have transformed how millions of people live. The way technological ideas have accumulated over time and the effects they have had on society is one of the main themes of world history. Shortly before 3000 BCE, Mesopotamians invented a technological idea which ended in a writing system called cuneiform that increasedcommunication, record keeping, and abstract thought.

Through symbols written on wet clay tablets that represented objects and sounds, history could be recorded for the first time. Writing was a major expansion of the conceptual horizon of humankind that reached back to the first flaked stones, ornaments, figurines, and cave paintings in the Paleolithic (Von Sivers 44). Early metallurgists discovered that by adding tin to copper they were able to make bronze which was much harder than copper and provided a sharper cutting edge which was the start of the Bronze Age (Lecture).

By 2800 BCE Sumer entered into what is described as the protoliterate period where scribes would work with pictograms and official seals but there was still no official written language (Lecture). Harappan cities were unique to the 1700’s BCE due to the meticulously planned grid-like design that included a most elaborate urban sewer system for ancient times. Remarkably straight, brick paved streets ran in north/south, east/west axes forming square blocks of public buildings, temples, and markets in convenient locations.

Houses had brick-lined indoor wells and primitive toilets emptying into terra-cotta cesspits whose overflow connected to the city’s drains and sewers (Von Sivers 80). Located several miles up the Sabarmati River from the Gulf of Khambat, Lothal was a large, perhaps the chief, of all trading seaports around 1700 BCE. Lothal central structure is an enormous basin, approximately 120 feet long and 70 feet wide. The location of Lothal on the Arabian Sea indicates a link between Harappan cities and trade that would have reached Mesopotamia and possibly Egypt.

Lothal was also a famous regional craft center, with micro beads used for decorative craft items and jewelry as its chief product for internal trade and export (Von Sivers 80). Around 1700 BCE, the chariot and composite bow made their entry into the Middle East and eastern Mediterranean region, transforming armies who previously relied solely on foot soldiers. Black smiths mastered the art of iron making and incorporated iron into their chariot armies, in the form of swords, helmets, and protective armor (Von Sivers 53).

The Shang Dynasty used the horse to drive chariots, which transformed the Chinese warfare for transportation, which linked disparate regions of China and helped the Shang to expand. It was a featured in art andpoetryand thus offered a new symbol for artist and poets to work with. It will also link China to nomadic horse people from the north and west (Von Sivers 110). The people in Meroe mined, smelted, and forged iron which they were the first to do so in sub-Saharan Africa. The craft of iron smelting evolved gradually in Hittite Anatolia during several centuries after 1500 BCE.

The possible spread of iron-working sills from the Middle East to Africa has not been satisfactorily proved. Iron workers in African villages adapted iron-making to local village circumstances. The production of iron, or greater import was the knowledge f how to forge the bloom-the combination of raw iron and slag- into an iron- carbon allow that was neither too soft nor too brittle (Von Sivers 165). Chariots and bows were introduced to the Shan army between 1300-1200 BCE. Around 1200 BCE, The Olmec crafted figurines, mask of clays, and made figurines from jade and serpentine.

The Olmec heads were carved from 18 ton blocks of basalt that were quarried 70 miles away from San Lorenzo. Large groups of workers shouldered beams from which the basalt blocks, weighing 18 tons on average, hung in slings. They carried these blocks to the coast and shipped them to San Lorenzo on rafts. There, sculptors fashioned the blocks into fierce-looking, helmeted heads, kneeling or sitting figures, and animal statues (Von Sivers 145). The Lydians are notable for having created in 615 BCE the first mintedmoneyin world history, coins made of silver and gold and used in trade (Von Sivers 199).

The Achaemenids created an elaborate system of roads known as the royal roads around 550 BCE for communication and transportation of troops and trade. The Persian Empire in particular covered vast amounts of land, from Anatolia to Egypt and Mesopotamia, to modern day Afghanistan. The Persian Empire was both centralized and decentralized. One centralized aspect, as revealed by the roads, was the need to pay taxes and tribute to the shahinshah, the emperor. Even more revealing is the style of the Persian

roads, with distance markers at regular intervals, inns and depots indicating the sophistication of the Persian infrastructure.

The centralization of the empire is further revealed by the regulation that local parts of the road had to be maintained by the local governors, appointed by the emperor; thus even to the local level the emperor had influe nce (Von Sivers 200). The Achaemenids achieved their conquests with the help of lightly armed; highly mobile mounted archers as well as heavily armored, slow-moving cataphracts-horsemen with protective armor consisting of iron scales sewn on leather shirts. Quilts and iron scales protected the horses. The archers fought with composite bows and the cataphracts, with 5-foot long, iron-tipped lances for thrusting.

Infantry soldiers armed with bows, arrows, shields, and javelins provided support for the cavalry, complementing its tank-like thrust (Von Sivers 200). The Well-Field System was an attempt to untangle the more confusing aspects of land arrangement around 500 BCE. The Zhou was the first among many dynasties to attempt to impose a uniform system of land tenure in China. Each square Li(one li is about one-third of a mile), consisting of 900 mou(each mou is approximately one-sixth of an acre) was divided into a grid of nine plots.

Individual families would each work one of the eight outside plots while the middle one would be farmed in common for the taxes and rents owed the landowner or local officials (Von Sivers 117). In the 5th Century BCE, sculptors began to explore physical movement, emotion, and individual character by Greek Painting and Sculpture. Greek vase paintings and

sculptures achieved a remarkable wide range, from figures exerting themselves in their chosen sports to serene models of human beauty.

Greek sculptors and painters abandonedsymbolismand instead, embraced realism as their style of representation in which we call today photographic representation (Von Sivers 229). Craftspeople from the Chavin de' Hauntar around 500 BCE made beads, pendants, stone tools and leather goods, but pioneered new techniques combining the wool from llamas with cotton to create a new blended cloth. They decorated it using new methods of dyeing and painting. Goldsmiths demised new methods of soldering and alloying gold and silver to make large ornamental objects.

Small objects, such as golden headbands, ear spools, beads, and pins, signified prestige and wealth. Gold artifacts found in the graves of the wealthy attest to the value residents of Chavin placed on gold (Von Sivers 144). What technical and cultural development allowed the people of the Lapitacultureto spread throughout the Pacific Islands? 500 BCE-200 BCE- The Polynesian Islands were settled in part due to sail and paddle-driven canoes, which were further improved by the addition of outriggers or double hulls.

These boats improvements allowed the Polynesians to sail further and reach some of the more distant islands. Cultural developments included the ability to retain elaborate, detailed mental maps of islands, ability to read wind patterns and currents, and retention of celestial information that allowed for navigation (Von Sivers). The Silk Road was an overland trade routes that connected eastern and western Eurasia, beginning at the end of the fourth century BCE (Von Sivers 286).

Mayans developed writing that was a complex combination of glyphic and syllabic script as early as 400-300 BCE. Mayan writing is a glyphic as well as a syllabic script, numbering some 800 signs. It is structurally similar to Sumerian cuneiform and Egyptian hieroglyphic. The glyphic part consists of pictograms, one-word images of the most essential features of what is to be depicted. Glyphs as syllables consist of one, two, or three of syllabic glyphs, or syllabaries, are pronounced as a series of syllables.

Given the mixture of pictograms and syllabaries, which is potentially immense, the complexity of Mayan writing appeared for a long time to be an insuperable obstacle to any effort at deciphering (Von Sivers 182). Around 300 BCE, The Upanishadic writers, or which one hundred are known, thought that the Vedic religion had become too distracted due to the thousands of gods. The Upanishads instead sought a monist, rather that polytheistic approach, and sought for a first principle, a universal truth that did not require the worship of many different gods.

The Upanishadic writers were hermits who wanted to reach unity with the universal self, which would remove them from the cycle of rebirth and redeath that characterized earthly life. Salvation in this system was moksha, escape from reincarnation. This salvation was achieved through meditation and brief aphorisms becoming a vital part of a new evolving tradition (Von Sivers 248). Around 221 BCE, the Qin Shi Huangdi, the first emperor of the Qin, accomplished a significant part of empire and state building.

These are several accomplishments of Shi Huangdi to include: building the Great Wall of China that was massive project stretching over 1400 miles to safeguard against attacks by nomadic people in the north; standardized

weights, measures, and coinage; building roads, canals, irrigation, water conservancy projects; his tomb with life-sized warriors; use of conscripted labor; and the implementation of Legalism as the primaryphilosophyof the realm. Each of these was designed primarily to increase the centralized power of the Qin leader and his state.

Babylonians were great mathematicians, who worked fractions, whole numbers and square roots as well as some of the elementary theorems of geometry (Lecture). Starting from the foundations of the Sumerians, the Babylonians made advances in arithmetic, geometry, and algebra. Buddhism, the most profound intellectual influences from India on the surrounding regions was inscienceandmathematics. During the period from the second century BCE until the second century CE India was an importer of scientific and mathematical concepts from the Greco-Roman and Persian spheres.

Greek geometry, made its way into northern India during this time. Concepts of Indianhealthregimens-some involving yoga discipline-along with the vast body of Indian medicine, with its extensive knowledge of herbal remedies, also seem to have moved west. In the area of mathematics and astronomy an important synthesis of ideas took place in the developing the first Indian calendars, which were based on the lunar months, through a year consisted of six seasons and an intercalary period was inserted every 30 months to make up the difference with the solar year.

The Indians then adopted the calendar of the eastern Mediterranean and southwest Asia, which had a 7 –day week, a 24-hour day, and a 365-day solar year-along with the 12 zodiacal signs of the Greco-Roman world (Von

Sivers 264). The earthenware produced during the Tang dynasty 618 CE is among the most coveted in the world today. Perhaps even more impressive, by this time, too, artisans were producing a kind of “ proto-porcelain” that, with increasing refinement, would be know in the succeeding centuries to the outside world as “ china” (Von Sivers 284).

Throughout history, humans have adapted their ideas to theirenvironmentand learned to overcome obstacles, thus paving the way for new elements oftechnology. Humans expressed themselves and communicated with one another in sophisticated ways through paintings, sculptures, and the decorative arts as well as writing, construction, and metals. Of more recent, humans invented writing systems that gave birth to many forms of literature. Humans have wrestled with ideas and beliefs regarding technology.