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### Cultural Evolution

#### Technology, Population, and Social-Political Organization

Adapted from [Roadmap To Reality](#)

By Thomas J. Elpel

Through the course of history there have been many different forms of human society, ranging from tribes to chiefdoms to kingdoms and states, each varying in the size of the population, the structure of socio-political organization, and the technologies, customs, and beliefs associated with them. Anthropologists have pondered these variables for generations, seeking predictable patterns in cultural evolution. In this article we explore this topic of cultural evolution to better understand the structure and customs of societies both past and present.

In his 1877 book, *Ancient Society*, Lewis H. Morgan proposed the first popular theory of cultural evolution to explain the multitude of socio-political structures and belief systems encountered around the world. He believed that human societies progressed through stages of lower, middle and upper savagery, to lower, middle and upper barbarism, and then to ancient and medieval civilizations, culminating with modern society. Each level of progress was characterized by certain technological achievements and socio-political beliefs and customs. For example, upper savagery was characterized by the bow and arrow, the emergence of tribes, and cannibalism, while lower barbarism was characterized by horticulture, the village stockade, and the Great Spirit. The implication of Morgan's scheme was that cultures evolved through the lower stages of human society towards the apex of human achievement, modern civilization.

Although Morgan's theory eventually fell out of favor, it inspired other theories of cultural evolution that more accurately classify the variables represented by human societies past and present. One of the first credible works on cultural evolution was Peter Farb's 1968 book, *Man's Rise to Civilization*, based primarily on the research of anthropologist Elman Service. Farb outlined the connection between the size of a population and the complexity of its social, economic, and political institutions. Although he classified cultures as various types of bands, tribes, and chiefdoms, culminating with the state, Farb didn't imply that one form of socio-political organization was better than another. Rather, he observed that "A complex society is not necessarily more advanced than a simple one; it has just adapted to conditions in a more complicated way."

Along with the bands, tribes, chiefdoms, and states proposed by Farb, some authors also recognize divine kingdoms as a distinct form of culture, placed midway between chiefdoms and states. The socio-political structure, technology, and some of the customs and beliefs associated with each form of culture are summarized here.

**Bands:** A lifestyle based exclusively on hunting and gathering necessarily limits the size and structure of a society according to the available food supply. Most true hunter-gatherer cultures were organized as bands, consisting of groups of families that cooperated with each other. The family is what Farb calls the "irreducible minimum of human society," a socio-economic-political unit consisting of the association between a woman and a man and their children.

[Hunter-gathers sketch.](#)

Most hunter-gatherer bands had strict gender roles; men hunted and fished while women gathered roots, seeds, and berries. This was apparently an effective pattern for survival, since ninety-seven percent of hunter-gatherer cultures were organized similarly. Aside from strict gender roles, these were largely egalitarian cultures in which everyone worked to survive and neither gender, nor typically any one individual, had a higher status or more political power than anyone else. Perceived spirits were also egalitarian, being either male or female.

The Piute Indians of the Great Basin Desert in Nevada and Utah were organized as bands. Individual families roamed the desert seeking pine nuts, roots, seeds, grasshoppers, rabbits, fish, or antelope that happened to be in season. Families

occasionally cooperated with other families when pine nuts, rabbits, or other resources were seasonally abundant. The most experienced hunter became the temporary leader, organizing all aspects of the hunt. Afterwards the families disbanded and went their own ways. Understanding the basic structure of Piute culture helps explain some of their behavior and interactions with Westerners.

American explorers sought tribal chiefs to establish treaties, but the closest thing to a chief among the Piute was the "rabbit boss" who organized the hunt. There was no structure to bind the Piute people together as a single social-political unit. It was for this reason that the Piute were known as a largely peaceful people. They did not wage war on neighboring Indians, and they split up and ran away when attacked by others. They lacked the social-political structure to either mount an attack or to defend their territory.

This isn't to say that people living in bands were free from aggression. Homicide rates can be shockingly high in band societies. A survey of one band of Copper Inuit revealed that each adult male had committed homicide at least once. Most homicides were related to quarrels over women. An enlightening movie produced by the Inuit is *The Fast Runner* (2001). This fictional soap opera of Inuit life, lust, and murder, offers a glimpse of social life north of the Arctic Circle.

Bands consisted of temporary groupings of families, such as the Piute, or more permanent groupings of up to a few hundred people, which Farb classified as composite bands or patrilocal bands, but they were all essentially egalitarian in structure, with no person having any significant political power or exemption from normal day-to-day work.

Spiritually, bands as well as tribes typically believed in magic, rather than religion, which arose with agriculture. As Farb noted, "Magic differs from Christianity, Judaism, Mohammedanism, and Buddhism in that it does not attempt to regulate behavior in the society as a whole or to propagate a code of conduct and belief... In magic, the practitioner believes that he can directly affect other humans and nature, either for good or for ill, by performing certain steps. Magic is therefore instrumental-and some of these instruments are witchcraft, sorcery, oracles, divination, and various kinds of curing."

Sir James George Frazer compiled notes about magical beliefs from primitive cultures around the world in his 1922 book, *The Golden Bough*. One can sense what daily life might have been like in a primitive culture from a single paragraph out of thousands of examples, somewhat condensed here, "Esquimaux boys are forbidden to play cat's cradle, because if they did so, their fingers might in later life become entangled in the harpoon-line. Here the taboo is obviously an application of the law of similarity, which is the basis of homoeopathic magic: as the child's fingers are entangled by the string in playing cat's cradle, so they will be entangled by the harpoon-line when he is a man and hunts whales... So, too, among the Ainos of Saghalien a pregnant woman may not spin nor twist ropes for two months before her delivery, because they think that if she did so the child's guts might be entangled like the thread... a Blackfoot Indian who has set a trap for eagles, and is watching it, would not eat rosebuds on any account; for he argues that if he did so, and an eagle alighted near the trap, the rosebuds in his own stomach would make the bird itch, with the result instead of swallowing the bait the eagle would merely sit and scratch himself. Following this train of thought the eagle hunter also refrains from using an awl when he is looking after his snares; for surely if he were to scratch with an awl, the eagles would scratch him. The same disastrous consequence would follow if his wives and children at home used an awl while he is out after eagles, and accordingly they are forbidden to handle the tool in his absence for fear of putting him in bodily danger." As one Iglulik Eskimo told explorer Knud Rasmussen, "What do we believe? We don't believe; we only fear."

**Tribes:** A larger caloric supply enables bigger social groups and more complex socio-political organization.

Plains tribes obtained sufficient calories from hunting bison while the pastoral Massai of Kenya obtained their calories from cattle. Otherwise, most tribes depended on horticulture to a greater or lesser degree for the necessary calories to supplement a hunter-gatherer subsistence lifestyle.

Tribes are larger and more complex than bands, often consisting of multiple subgroups, such as the clans of the Zuni pueblos. Each clan has separate duties within the tribe. Like bands, tribes are composed primarily of related families living together. Specialization is minimal, without full-time soldiers, artisans, priests, or office holders. Everyone helps out with the effort to find or grow food. A chief or council of leaders can recommend a course of action and make decisions, but they lack the power of state to enforce those decisions. In essence, a tribe functions as a large gathering of independent individuals governed by persuasion.

A society of free-willed individuals can be a recipe for internal conflict, and homicide was common within many tribes. However, aggression was primarily directed outward towards neighboring tribes. From the Plains Indians to the northeastern Iroquois, as well as tribes in Africa, South America, and the South Pacific, fighting released tribal stress as warriors proved themselves in battle and earned prestige among their peers. Tribes rarely fought with the intention of conquering each other, and fighting had little to do with political disputes. Bloodshed was common, but the greatest glory typically went to warriors who merely touched or "counted coup" on an enemy and escaped unscathed.

In the book *The Falcon*, a narrative of the life of John Tanner, Tanner described his life among the Ojibway. Tanner was kidnapped at the age of nine years old by Shawnee warriors from his family's homestead in 1789. He was later traded to the Ojibway and raised by a woman who had lost her son. He remained a member of the Ojibway tribe his entire life and participated in several raids against the Sioux. The warriors traveled far to attack the Sioux, but in every "raid" the warriors

were turned back by hunger, thirst, premonitions, internal strife, or simply because there was no cohesive structure to hold them together.

The Ojibway raids against the Souix became increasingly humorous throughout Tanner's narrative as raid after raid dissolved en route to the battlefield. In the mother of all raids, a mass of four hundred Ojibway warriors coincidentally met up with a thousand other Ojibway, Assiniboine, and Cree who were prepared to make war on the Sioux. As Tanner described it, "On the first night after we came together, three men of the Ojibbeways were killed. On the next, two horses belonging to the Assinneboins, and on the third, three more [horses]. When such numbers of men assemble from different parts of the country, some must be brought into contact between whom old grudges and enmities exist, and it is not surprising that the unstable power and influence of the chiefs should be insufficient to prevent disturbances and bloodshed. On this occasion, men were assembled from a vast extent of the country, of dissimilar feelings and dialects, and of the whole fourteen hundred, not one who would acknowledge any authority superior to his own will. It is true that ordinarily they yield a certain deference, and a degree of obedience to the chief each may have undertaken to follow, but this obedience, in most instances, continues no longer than the will of the chief corresponds entirely with the inclination of those he leads." Many Indians journeyed for months and some for more than a year to join the great battle. But the gathering dwindled to four hundred warriors by the time they were within two days striking distance of a Sioux village. When they finally reached the Sioux village, the war party consisted of a single chief and one or two warriors, who fled when they were discovered lurking around.

Like a band, even if a tribe were able to organize and conquer a foreign territory, it still lacked the means to secure and administer it. The absence of internal structure greatly aided Europeans in conquering North America. Native Americans fought battles for honor and glory against European enemies who fought wars to vanquish and rule over new territory.

Similar to bands, tribal cultures lived a primarily first-person existence in the present moment, and many tribal languages lack words to distinguish the past or future. For example, in Hopi there are no words for time, and no words that imply the passage of time, such as the idea that something might last or endure. People talk about long-dead friends and relatives as if they just walked out the door, as if all time runs together in a perpetual present moment. Where we describe summer as a season, implying a span of time, the Hopi describe it as a phenomenon where conditions are hot. The Hopi do have a rich oral history, but it is linked to past generations, rather than to a numerical calendar. Instead of talking in past tense, stories are retold or re-enacted vividly in present tense regarding individuals who passed on generations ago.

Living in the present moment, bands and tribes existed largely unfettered by past regrets or future worries. They feasted when there was food, without worrying about putting anything away for the future. John Tanner never fully embraced this aspect of Ojibway culture, since he imprinted the homestead routine of storing food for the winter before he was captured as a child. Unlike his adoptive tribe, he constantly tried to store food in preparation for hard times ahead.

Filmmaker Lewis Cotlow noticed this present-orientation among the Jivaro of South America, as noted in his 1942 book, *In Search of the Primitive*, "Most Jivaros are not introspective or moody. They spend little time regretting the past or worrying about the future. They live in the present and find it good, most of the time, even though it is filled with dangers. The worst dangers are, in their minds, largely unseen. They fear the inguanchi, the demons or evil spirits, but not the jaguar, the white man or the Jivaro enemy." Being present-oriented, hunter-gatherers did not necessarily fear death. They acted in the moment without dwelling over future consequences, not unlike many teens and young adults from our own culture. As Ken Wilber wrote in *Up from Eden*, "Death is an abrupt, present, and magical occurrence, which might or might not happen now-it is not something that occurs in a distant future. Extended time does not yet pervasively enter the picture."

Beginning with tribal societies, horticulture facilitated the gradual emergence of time awareness and a slow transition from beliefs in animistic spirits to beliefs in gods in the heavens above. Women tended gardens with simple digging tools, while the men continued to hunt. Wherever women produced the majority of the food supply, societies often became matriarchal, or at least "matrifocal." Women generally led the households and many of the spirits or gods were feminine. Horticultural societies of sufficient size acquired the social-political organization of chiefdoms.

**Chiefdoms:** Chiefdoms are characterized by a surplus of food, Mound Builders. greater specialization in labor, and a central figure to take in and redistribute wealth. While bands or tribes often migrate from one food source to another, a chiefdom has a larger, more permanent population spread across a diversity of environments. Some groups might specialize in raising crops, while other groups specialize in hunting and fishing or berry picking, and the resources from each are redistributed throughout the chiefdom. Chiefdoms formed without horticulture along the bountiful northwest coast of North America, but otherwise, chiefdoms of the southeast and the Old World were dependent on horticulture to produce the necessary calories to sustain their population base.

The chief was typically pampered throughout life and provided with an elaborate house and other needs, all financed by the flow of goods within the culture. Chiefdoms were hierarchical, so much so that in northwest coast cultures an individual would know precisely whether his rank was 292 or 293 from the chief.

The largest chiefdoms in North America were the mound builders, such as the Natchez people centered around present-day Mississippi. The Natchez built temples on mounds surrounded by palisades, which were decorated with skulls brought back by the warriors. They worshipped the sun and worshipped their leader as the sun's brother, or simply as the "Great

Sun." From birth until death, the Great Sun was treated as a living god and was the focal point of the entire culture. Every morning the Great Sun would greet the rising sun with howls, then raise up his hand and point the direction the sun must follow across the sky. The temple held the bones of the Great Sun's ancestors, as well as various idols such as ceramic models of men and women, snakeheads and tails, stuffed owls, crystals, and the jawbones of a large fish. The Great Sun went to the temple to worship and then announced what the idols foretold.

When a male heir was born to the Great Sun, the Natchez people brought their own children in the hope that they would be chosen as his lifelong aids and servants. The eventual death of the Great Sun was followed by a tremendous funeral rite, in which his wives, guards, and servants were also expected to die, and the rest of the population vied for the privilege of accompanying him into the afterlife. Volunteers swallowed a concoction of tobacco that rendered them unconscious, at which point they were lovingly strangled by relatives. The Great Sun's cabin was burned, and all the fires in the village were extinguished. He was temporarily buried at the temple. Later, the bones were exhumed and the remaining flesh was removed before placing them in baskets beside his ancestors.

The Great Sun was powerful. He essentially owned all people and all property, and could do with them as he pleased. On a whim he could have any person executed on the spot, although there was no reason to use such power. More typically, a chief would have captive slaves executed on a whim, not in a display of power, but rather in a display of wealth. Similarly, among northwest coast cultures a chief might have his slaves executed to be used as logs for a visiting chief to roll his boat up onto shore. It was a show of extravagance to demonstrate that the chief had so much wealth that he could dispose of his assets for frivolous purposes.

On the other hand, the power of a chief was secured not through any legal institutions, but through loyalty gained from the process of redistributing wealth. While there was a constant flow of goods and wealth towards the chief, the chief demonstrated his greatness by giving it away, bestowing it to all of his people. And although the chief might be able to send warriors to conquer new territory for the chiefdom, there wasn't any means to control that territory, except by redistributing wealth back to the people so that they benefited by being conquered. If any group felt disadvantaged, they might splinter off to form their own chiefdom. While the chief had primary control of force within the chiefdom, it wasn't an exclusive power. Individual lineages within the chiefdom often feuded with each other and carried out their own justice, or launched their own raids into neighboring chiefdoms.

**Divine Kingdoms:** Large and complex chiefdoms, or proto-states, are sometimes referred to as divine kingdoms, as described by authors Robert Sharer and Loa Traxler in *The Ancient Maya*: "The history of Maya political organization was dominated by the development of independent polities and centralized political power—the rise of the institution of divine kingship... Maya kings claimed a divine or sacred status, similar to that of Egyptian pharaohs, and were responsible for the prosperity, health, and security of their kingdoms and their subjects by maintaining a favorable relationship with the gods." Significant cities and grand architecture suggest a state level of organization, but divine kingdoms often consisted of only one or a few such cities and are often referred to as city-states. Most importantly, the ruler or king was perceived as a living god, much like the Great Sun of the Natchez, as was the case among the Maya, Aztecs, Inca, and Egyptians.

Million idols.

Along with chiefdoms, divine kingdoms make up one of the most bizarre chapters of human history. Wherever our ancestors began building cities, they perceived their rulers as living gods, built great temples for them to communicate with the gods above, held mass sacrifices when their god-kings died, and seemed to be driven by unseen voices and idol-worshipping, as if the entire culture experienced mass schizophrenia. From our perspective it might seem like these divine kings or "living gods" were skillful con men, consciously making their subjects subservient to their will, but the evidence suggests otherwise. As noted by Ken Wilber in *Up from Eden*, "These earliest kings, frequently submitting themselves to ritual regicide, served an integral function in the society at large, and tended to be subservient to that function. That subservience is glaringly epitomized in the sacrificial rites, where, no matter how barbaric they were, nonetheless the king voluntarily submitted himself."

Interestingly, Aztec culture evolved from nomadic tribal living to divine kingship in less than two hundred years. The Valley of Mexico was already settled with flourishing city-states when the Aztecs migrated there looking for a home. The Aztecs were driven away from existing settlements, but a statue from a ruined temple spoke to them and directed them to an island in the marshy lake in 1325 A.D. An eagle holding a snake and perched on a cactus (as depicted on the Mexican flag today), was perceived as a good omen that the island was home. The Aztecs dredged soil up from the marsh to make highly productive garden beds surrounded by water, called *chinampas*. The gardens were typically fifteen to thirty feet wide, three hundred feet long and completely surrounded by water. With the fertile soil, a constant supply of water, and the mild climate, the Aztec grew multiple crops per year, facilitating explosive population growth. By the time Spanish Conquistadors arrived in 1519, the city of Tenochtitlan (today's Mexico City) was a magnificent, Venice-like city built on the lake, bigger than London and home to hundreds of thousands of people. The Spanish described Tenochtitlan as the most beautiful city they had ever seen. The god-king, Moctezuma, lived in luxury, with a magnificent palace filled with great numbers of dancers, a royal zoo, a display of people with physical deformities, and royal gardens with sweet-scented trees, ponds, and water flowing from tank to tank.

Through a triple-alliance with neighboring city-states, the Aztecs conquered other kingdoms across the region, forming a vast Mesoamerican empire with millions of people. The conglomerate population was large enough to form a true state, but

each kingdom within the empire was semi-autonomous, paying tribute to the Aztecs out of fear of retribution. These vanquished neighbors were unwilling participants in the Aztec empire, so they eagerly joined forces with Cortez's meager force to topple the empire.

Idol making was pervasive in divine kingdoms, and the idols typically had extra-large, hypnotic-looking eyes. Historical records indicate that these idols were often worshipped as if they were gods. In 1565 the Spanish administrator of one conquered Mayan city ordered an end to all such idolatry, and was shocked when upwards of a million idols were brought to him. One Mayan figurine was made of cedar, a holy wood to the Mayan people. They were carved by priests fasting in huts, then anointed with their blood and blessed with incense and prayers. The finished idols were lavishly dressed and cared for, and according to a sixteenth-century observer, the Mayans believed the idols spoke to them. They sacrificed birds, dogs, their blood, and people's lives to the figures. The Spaniards also reported that among the Inca of Peru, the devil spoke to the people out of the mouths of their statues.

Clay figurines have been found in great profusion in most Mesopotamian cultures as well, often displayed in exactly the same way in each household, and sometimes buried with the deceased. Cuneiform literature frequently refers to the god statues as if people were guided by them. Many of the larger cities were built around tall temples called ziggurats, which scholars believed housed a god-statue. According to cuneiform texts, the god-statues liked eating, drinking, music, and dancing; they had beds to sleep in and occasionally enjoyed visits from other god-statues. They had to be washed and dressed, perfumed, and guided about on special occasions. The washing ceremony was likely done with a sprinkling of clean water, which may have led to later christening ceremonies. Tables placed before the god-statues later evolved into altars. In this case, however, food and drink were placed on the tables to feed the statues. According to some interpretations, the god statue was left to enjoy his meal alone. Later, a divine king entered the shrine from a side entrance and ate whatever was left behind by the god-statue.

Wherever divine kingdoms existed, there were always lavish funerals when a living god died. In the Mesopotamian city of Ur (in today's Iraq) five thousand years ago, a king was buried with all his servants, sometimes alive, in a crouched position around him. The vaulted tombs contained food and drink, clothing, jewelry, weapons, lyres, and sacrificed draft animals yoked to ornate chariots. Eighteen such tombs have been found at Ur, with others uncovered in the cities of Kish and Ashur. In Anatolia (Turkey), royal graves were roofed with whole carcasses of roasted oxen to feed the dead. The larger and more wealthy the culture, the more elaborate the tombs, rites, and burials for the dead kings, culminating with the extravagance of the Egyptian pyramids.

Hearing voices was not unique to chiefdoms and divine kingdoms. People in hunter-gatherer bands and tribes also commonly heard voices, especially in moments of anxiety, but they typically experienced those voices as animistic, coming from mice and chickadees or other animals they encountered. In large chiefdoms and divine kingdoms the voices were apparently much more pervasive and usually interpreted as gods. If these voices were triggered by stress and anxiety, then these cultures must have epitomized stress.

In the *Iliad*, for example, from classical Greek culture, the actions of men seem to be dictated by the voices of gods. When Agamemnon, the king of men, takes Achilles' mistress, a god warns Achilles not to strike him. Another god consoles him. Gods start the quarrels among men that cause the fighting; then the gods lead the armies into battle, speak to each soldier at critical points along the way, and urge the soldiers into defeats or victories by casting spells and visual hallucinations over them. Gods debate and teach Hector, whisper to Helen, and instruct Glaucus. One god makes Achilles promise not to go into battle, while another urges him on. Another god screams through his throat at the Trojans, rousing them in panic. When Achilles confronts Agamemnon about taking his mistress, Agamemnon replies that it was not his doing. It was the gods that commanded him to do it, an explanation that was fully accepted by Achilles.

Similar unseen voices were recorded in the Old Testament, when the gods seemed to speak to people directly. The voices became less prominent with the rise of agricultural states and were codified in print as the words of God or Allah. Rather than hearing the voices directly, a clergy of men read these scriptures and interpreted the will of God for the people. Individuals who could still hear the voices were often persecuted and exterminated, but occasionally venerated, such as Joan of Arc.

Voice hearers remain common in our culture today. At least five percent of the population has reported hearing voices. Many people hear voices for the first time during moments of stress, such as in grief over the loss of a loved one. Naturalist Jon Young described how the birds would come to his grandmother's window in Poland and speak to her in Polish about her deceased loved ones and how they were doing. However, voice hearers lost their prominence and influence in society with the rise of agricultural states.

Man with oxen plow.

#### **Agricultural States:** States

arose in the transition from

horticulture animal-driven agriculture. Women experienced a significant rate of miscarriage running animal-driven plows, so men switched from hunting to farming. Men produced most of the calories, men became the heads of households, and the gods became male gods. As Ken Wilber wrote in *A Brief History of Everything*, "Because of the social relations that began to organize themselves around the basic forces of production-in this case the plow-men then began to dominate the public sphere of government, education, religions, politics. And women dominated the private sphere of family, hearth, home. This

division is often referred to as male production and female reproduction."

State governments are associated with larger populations, more complexity, technological advancements, and more wealth. The surplus of calories that started within chiefdoms grew larger in divine kingdoms and larger in agricultural states, enabling a trend towards greater specialization and distinct classes, with a full time military, clergy, and government. People no longer worked as equals in the quest for food, which led to hierarchical systems of power. State governments own the exclusive right to use force through sanctioned police and military powers. Any faction within the state that tries to use force at its own discretion is considered a threat to the central state government.

Perhaps most significantly, agricultural states solidified the long-term trend from the first-person perspective common in hunter-gatherer societies to a second-person conformist or nationalistic ideology. People learned to see themselves through the eyes of their culture and conformed to the expectations. Mythical ideals about god and the heavens above replaced the magical thinking that originated with bands and tribes. Exposure to other cultures was limited, and their beliefs discarded as simply wrong. With full-time armies available to conquer and hold territory, state governments are typically expansionist, as demonstrated by the colonial powers of Europe. This connection between agriculture, hierarchical social classes, and conquest is well documented and the basis for popular books such as those written by Daniel Quinn and Derrick Jensen.

**Industrial States:** Manufacturing items with interchangeable parts may seem like commonsense from our perspective, but it was a revolutionary concept in about 1798 when Eli Whitney assembled ten guns from interchangeable parts in front of Congress. Congress subsequently issued standards for United States equipment. Interchangeable parts became the foundation for another simple idea: assembly line production, which Henry Ford perfected for construction of the Model T in 1913, becoming the model for modern industry.

Industrial states level many of the inequalities associated with agricultural states, because men and women can work side-by-side as equals in most factories and offices to earn a living. In many families both parents work to earn a living, and in some cases only the mother goes to work to "bring home the bacon."

Industrialization also facilitates a shift in perception from a second person to a third person perspective. To appreciate the depth of this perceptual shift, consider that, prior to trains, human travel was fused with the natural world. People traveled overland by foot, horseback, or buggy, intimately connected with the passing of every house and farm, keenly aware of the fatigue and smells of the livestock and every bump in the road. It was an intensely first person, present-moment-oriented experience. Railroads changed human perception, as noted by Wolfgang Schivelbusch in his book *The Railway Journey: The Industrialization of Time and Space in the 19th Century*. Early passengers were shocked to break free from nature to speed along at twenty or thirty miles per hour. Englishmen described it as the "annihilation of space and time," as their country seemed to shrink. All destinations seemed two-thirds closer together than before.

We might imagine that passengers would have reveled at the thrill of speed, racing through the scenic countryside. However, the foreground sped by at such a pace that passengers were forced to look at the bigger, panoramic view of the landscape. The first person experience of bouncing along in a buggy was replaced with a detached, third person perspective looking out the windows. Passengers found it tedious. Traveling was no longer about the journey, but the destination. Travelers moved faster than ever before and impatiently awaited the end of the ride. They took up reading to pass the time.

Society gradually adjusted to the new reality, until the detached, panoramic perspective became normal. Changes brought on by technology filtered throughout culture. Small, traditional stores gave way to department stores with wide, railroad-like aisles and panoramic views of products on the shelves. Industrialization changed the perception of reality, such that most people become impatient with a slow, first person oriented travel experience. We prefer the sweeping big picture to the mundane details of every street and farm.

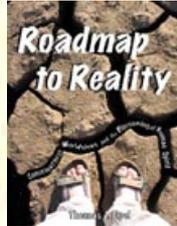
From these examples it is evident that technological development drives cultural evolution, influencing population size, socio-political organization, and even perceptions of reality. Studying cultural evolution provides a unique insight into our history as well as current world events. It also helps us to foresee that the present shift from an industrial economy to an informational economy may trigger cultural changes as profound as any that have come before. And finally, the study of cultural evolution forces us to look in the mirror and question our assumptions about reality itself. If our perception of reality changes with each shift in technology and culture, then how do we determine what reality really is?

Thomas J. Elpel is the author of [Roadmap to Reality: Consciousness, Worldviews, and the Blossoming of Human Spirit](#) as well as five other books covering wilderness survival, botany, green economics, and sustainable building. *Cultural Evolution* was published in the Society of Primitive Technology's *Bulletin of Primitive Technology*, Issue #38, Fall 2009. **The text here has been partly edited and updated in comparison to the original version.**

#### References:

- Boslough, John. "The Enigma of Time." *National Geographic*, March 1990. Pages 109 - 132.
- Coe, Michael D. & Rex Koontz. *Mexico: From the Olmecs to the Aztecs*. Thames & Hudson Ltd.: London. Fifth Edition. 2002.
- Cotlow, Lewis. *In Search of the Primitive*. Little, Brown & Co.: Boston. 1942, 1966.
- Diamond, J., & Bernal, M. *The Conquest of New Spain*. Penguin Books: London. 1963. -Ehrlich, Paul R. *Human Natures: Genes, Cultures, and the Human Prospect*.

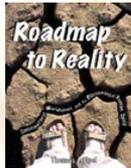
- Penguin Group: New York, NY. 2002.
- Ember, Carol R. & Melvin. *Cultural Anthropology*. Appleton-Century-Crofts: New York. 1973.
  - Farb, Peter. *Man's Rise to Civilization*. Avon Books: New York. 1968.
  - Frazer, Sir James George. *The Golden Bough*. Touchstone: New York. 1996.
  - Gill, Sam D. *Beyond The Primitive*. Prentice-Hall Inc.: Englewood Cliffs, New Jersey. 1982.
  - Jaynes, Julian. *The Origin of Consciousness*. Houghton Mifflin Company: Boston. 1976.
  - Lado, Robert. *Linguistics across Cultures*. Ann Arbor/University of Michigan Press. 1957, 1960.
  - Leudar, Ivan and Philip Thomas. *Voices of Reason, Voices of Insanity*. Taylor & Francis, Inc: Philadelphia, PA. 2000, 2001.
  - Sharer, Robert J. with Loa P. Traxler. *The Ancient Maya, Sixth Edition*. Stanford University Press: Stanford, CA. 2006.
  - Schivelbusch, Wolfgang. *The Railway Journey*. The University of California Press: Berkeley, CA. 1977, 1986.
  - Tanner, John. *The Falcon*. Penguin Books: New York. 2003.
  - Wilber, Ken. *Up from Eden*. Quest Books: Wheaton, IL. 1981, 1996.
  - Wilber, Ken. *A Brief History of Everything*. Shambala: Boston & London. 1996.
  - Young, Jon. "Learning the Language of the Birds." Audio Tape. OWLink Media.



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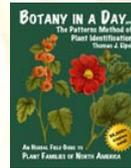
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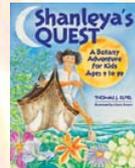
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The history of primitive society after the Neolithic revolution is entering a new stage. People are moving to a productive economy, which allows them not only to ensure their survival, but also to begin to target themselves with food and other necessities for life. This was the prerequisite for the transition to a settled way of life. Gradually, certain family-clan groups establish control over a certain territory. At this stage of development, a primitive society passes to a fixed division of labor, the distribution of food and marriage-family relations. The principles of equality and egalitarianism are still preserved. But, at the same time, the distribution of production could also be done taking into account the role functions of its participants (according to the principle of sex, age, etc.). Primitive technology is a genre of YouTube videos that demonstrate - usually over the course of about 15 minutes - how to build things without any influence from the modern world. This is distinct from the "prepper" movement, which focuses on stockpiling weapons and resources in anticipation of the breakdown of society. Primitive technology is more than just survival skills. It's like hitting the reset button and seeing how advanced you could become if left to fend for yourself. Need an axe? Oct 22, 2003 Society of Primitive Technology: Earth Skills, Wilderness Survival Skills - Survival Life. 88 Pages - 2014 - 931 KB - 7,338 Downloads. The abc's of wilderness survival. The Seven Deadly Enemies; To Stay or To Walk Out? Shelters Building with Earth: Design and Technology of a Sustainable. 198 Pages - 2007 - 21.02 MB - 27,866 Downloads. Appendices. 3. Gernot Minke. Building with Earth. Design and Technology of a Sustainable Building with Wilderness Survival Handbook: Primitive Skills for Short-Term Survival and Long-Term Comfort. 363 Pages - 2010 - 7.22 MB - 146 Downloads - New! , and navigation), Wilderness Survival Handbook covers 100 skills and techniques, including preserv