THE DAWN OF TELECOMMUNICATIONS

Ancient Greeks developed their own communications technology and their technological progress was both consistent and systematic from the 8th century B.C. right up to the Hellenistic times. This technology was passed on to the Romans and was then bequeathed to the Byzantines and the Arabs, to influence even the technologists of the Middle Ages.

The drum, the bugle, the whistle, the speaking trumpet, the tam-tam and the sounds coming from the bowls of the earth, all gave birth to acoustic telecommunications.
The beacon, smoke, the mirror, the lantern, the lighthouse and the flag led to optical telecommunications.
The first question posed by ancient man was: How could a message of good tidings or grief, of victory or defeat or a warning of danger, cross the mountains and the sea, day or night, when it was sunny or cloudy? Perhaps the answer was to form a chain comprised of human beings where the first person would shout the message out loud to the second person, who in turn would pass it on to the next person, and so on.
But weren't the herald, the messenger, and the news bearer – that is the Post Office, telecommunications? Or were they simply the precursor of telecommunications?
How could a message travel without man having to move from one place to another? How could the speed of an equestrian be exceeded? The Egyptians used pigeons as a postal mean. Was the solution perhaps an optical or sound signal, which would not involve the process of conveying written material and the return of the carrier after delivery?
The Greeks were aware of the problem from the outset. Hermes and Iris were the first heralds. The Goddess Athena invented the bugle. The mythical Stentor, according to Homer, had a voice, which was as powerful as that of fifty men. When King Aegeus saw the black sails on his son's ship (his son, Theseus, had forgotten to change them to white), he interpreted it as a sign of bad tidings. So, believing that he had lost his beloved son, King Aegeus jumped from a cliff into the sea, at Sounion.
As we move on from Myth to History, more and more evidence corroborates this fact. The fire to guide seamen, which burnt on the pillars of Hercules – on present day Gibraltar – the statue of Athena at the Parthenon, the temple of Poseidon at Sounion, the Colossus of Rhodes, the lighthouse at Alexandria, were points from where signals were sent over great distances.
However, there is even more conclusive evidence: The "fryctories" (an ancient Greek word for "cluster of beacons"). Another mythical figure, Palamedes the Wise, invented them. On igniting a series of fryctories from one mountain to another, messages were conveyed over great distances. Apollonius of Rhodes mentions the use of fryctories in his "Argonautica", while Aeschylus in "Agamemnon" corroborates that the message concerning the fall of Troy reached Mycenae in one night by employing this method.
References to these fryctories are also found in Herodotus, Thucydides, Euripides, Aristophanes and in the works of Sextus the Empirical. Some of these "Fryctoria towers" existed at Dracanon on the island of Icaria, on the island of Anaphe, near Knossos and other places as well. Some of these fryctorias are still in existence today. The Weather Observatory, on Mount Athos, mentioned by Anaximander, was actually a "fryctoria tower".
Pythagoras used the reflection from the sun's rays on shiny metal. Miltiades "tapped" signals, which were sent to the Persians by the "pro-Persian" followers of Heppeas, using the reflection of the sun on their shields. The tail end of the ships' stern was used for sending instructions to the other ships with the help of sound or optical signals. The Spartan baton was used to send ciphered messages. Olympic winners made their victory known by using carrier pigeons. Ancient Greeks used various coloured flags as a means of telecommunication. "Tele", which means "far", is of Greek origin.
The historian Polybius described two additional systems regarding transmission of optical messages. During the 4th Century B.C., the Arcadian general, Aeneas the Tractician, used a hydraulic telegraph, which he himself had invented, at the battle of Mantenea. The

Carthaginians also used this system, two centuries later. Aeneas' contemporaries, Cleoxenes and Democleitus, engineers from Alexandria, created the "Pyrsia", (Visual Telegraph of Kleoxenos & Demokletos) the first system for sending each letter of the alphabet separately, by using two sets of five large beacons, which were lit accordingly.
There is evidence in the Old Testament, in Gilgamesh's epic and in the works of Xenophon and others, that the Sumerians, the Assyrians, the Persians, the Hebrews, the Chinese and later the Romans, the Gauls, as well as the Carthaginians, used chains of luminous signals, as well as other optical or acoustic telegraph systems, in order to transmit messages.
The Arabs maintained the optical telegraph system and later passed it on to the Spaniards. Both, the Byzantines with their torch and the western Crusaders continued the pace set by the aforementioned and even developed the fryctoria system further. However, the other traditional means of communications were also used.
Telecommunications developed slowly over the following twenty centuries. The "Horonomion" invented by Bishop Leo of Thessaloniki (9th century A.D.), as well as the invention of the telescope and firearms – which could also be used in the field of telecommunications – were an exception. So were the heliograph and the attempts to convey acoustic messages through the earth, which was a method well known to the Indians long before.
During the difficult years when Greece was under the Turkish yoke, fire and smoke, the whistling of "kleftes" (klephts-1821 Greek revolution), banners and flags, lookout posts and watchtowers, the wooden hammer and board (used in monasteries because bells were prohibited) and the voice of the town crier, were used by the oppressed Greeks in order to communicate with each other.