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Technology of the ancients

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We tend to think of ourselves as advanced, and ancient civilizations as primitive. But archaeology and anthropology keep dishing up examples that contradict this simplistic understanding. While our tech and tools are impressive, dropping a few of us on a desert island to survive will rapidly reveal the pitfalls of specialization. An ancient Egyptian might have a better chance at surviving... while at the same time being capable of designing and building pyramids. When it comes to old, vanished human societies – some of their advanced technology still confound us to this day.

Pyramids and peaks

One of the most compelling pieces of evidence for advanced ancient technology is found in architectural accomplishments. The Great Pyramid of Giza, constructed around 2580–2560 BCE, remains a testament to the engineering prowess of ancient Egyptians. The precision with which the pyramids were built, aligning perfectly with the cardinal points and incorporating complex mathematical concepts, suggests a level of knowledge and skill that challenges our understanding of their capabilities. Similarly, the stone structures at Machu Picchu in Peru, built by the lncas in the 15th century, display an extraordinary understanding of engineering and architecture, with stones cut so precisely that they fit together without mortar. For perspective: which builder that you know can construct structures, without the use of mortar, that will last several centuries?

Gadgets and goodies

Think of ancient tools, and slivers of rock used as arrowheads come to mind. But consider the Antikythera mechanism, an ancient Greek analogue computer dating back to the 1st or 2nd century BCE. This was an intricate device used to predict astronomical positions and eclipses for calendrical and astrological purposes. This artifact demonstrates a high level of mechanical engineering that was not replicated until the medieval period. Additionally, ancient Indian texts describe advanced metallurgy, such as the crafting of the iron pillar of Delhi, which has resisted corrosion for over 1,600 years, suggesting a sophisticated understanding of materials science.

Health and wellness

Ancient civilizations also exhibited advanced medical knowledge and practices. The Edwin Smith Papyrus, an Egyptian medical text dating back to around 1600 BCE, reveals detailed surgical – yes, surgical - techniques and an understanding of the anatomy that would not be out of place in a modern medical context. Similarly, the ancient Indian system of Ayurveda, dating back to around 1,500 BCE, encompasses a comprehensive body of knowledge on medical treatments, surgical procedures, and the use of medicinal plants. The sophistication of these practices indicates a deeper understanding of health and the human body than previously acknowledged.

Stars and signs

Ancient humans also possessed remarkable astronomical knowledge. The Mayan civilization, for example, developed highly accurate calendars and understood complex astronomical cycles. Their ability to predict solar and lunar eclipses with precision and their construction of observatories, such as the one at Chichen Itza, reflect an advanced understanding of celestial movements. Similarly, the ancient Greeks, through figures like Hipparchus and Ptolemy, made significant contributions to the field of astronomy, including the development of the geocentric model of the universe and the cataloguing of stars.

Long lost?

There are also indications that some ancient technologies may have been lost over time. The recipe for Greek Fire, an ancient incendiary weapon used around Constantinople, is still a matter of speculation. The use of Roman concrete, which has proven to be more durable than many modern equivalents, suggests a level of chemical understanding that was



forgotten and only recently rediscovered. The Baghdad Battery, a set of artifacts found in Iraq and dated to the Parthian or Sassanid period (250 BCE–650 CE), resembles a simple galvanic cell, indicating the possible use of electroplating techniques long before the modern era.

Sailing sapiens?

In 2018, a team of researches began a study into the idea that Homo Erectus – that is, a species of hominid predating our own – had sailing vessels, and reached islands around the Mediterranean and as far away as Indonesia.

What is very clear is that history itself is a technology – and that without a recorded history – many other technologies, and indeed histories, may be completely lost. The linear understanding of humanity's rise from small tribes into large civilizations may be an incomplete picture... indeed, we may inherit ideas and practices from cultures far more advanced than we could imagine that we simply have no knowledge of.

For a subspecies of humanity to have sailing vessels and no other technology is very unlikely. Devices like the Baghdad Battery or the Antikythera – in our own, documented technology timelines – tend not to exist in complete isolation. There may be far more to the ancient cultures than we dream of... far more than the record has so far revealed. Considering this, our own technologies may be far less guarantors of remembrance or survival than we imagine them to be.