

Introduction

- Prior to the Iron Age, metal was not used abundantly as their full potential remained undiscovered – in particular, Iron was unheard of.
- There is an exception to the pattern found in jewellery and ceremonial daggers in Egypt, which were fashioned out of meteorites.
- 90% of the meteorites that fall to earth are primarily of stone, a small percentage of this debris consists of iron, with certain levels of nickel and crystal interlaced within.
- The iron found in meteorites was the only iron that existed for the prehistoric Egyptians, although it was rare, the shiny metal stands out in the sandy desert.
- For such a rare material, the complex items listed above should be much too sophisticated for the early Egyptians who were still relying on flint for tools.
- With meteorites falling from above, a religious connection would have been clear for many individuals, this would have inspired them to create valuable and precious items from these divine stones.



Figure 1: The iron beads from Gerzeh as can be seen today at the Petrie Museum in London. Now filled in by rust, they would have originally been smooth and iridescent.

Discovering the Beads

- In 1911 British archaeologist Gerald Wainwright discovered seven cylindrical beads he determined to be comprised of meteoric iron in a prehistoric cemetery in Gerzeh, a village in Egypt.
- These beads were located in two different graves which were determined to be contemporary to one another.
- An appraisal of the other items in these graves suggested that their occupants were prestigious individuals and these beads were highly valuable.
- The iron beads from Gerzeh can be seen today at the Petrie Museum in London, although it is now filled with rust, they were originally smooth.
- A wealthy grave with treasures is nothing out of the ordinary for antiquity, but it is clear that this site dates back much further than that.
- This site and the graves were dated to be from 5300 BCE which is a much earlier time period.
- This date would put these people in the middle of Egypt's predynastic period, centuries before hieroglyphs or any other form of writing.
- This would also be 2000 years before the beginning of the Iron Age.
- These beads are almost three millennia older than Britain's Stonehenge.
- Metal work is not something to be expected from such a time, and until recently this dating has been questioned simply out of doubt that these prehistoric people would have had the ability for such craftsmanship.
- These beads are the earliest known examples of worked iron, predating smelting in Egypt by 2000 years.

Recreating Beads

- In 2013, an experiment was done on meteoric iron to test how prehistoric jewelry was made
- *Step One:* Slice a piece of the meteorite. The slice must be made with the grain of the crystals to ensure that fracturing does not occur when heating the slice.
- *Step Two:* Heat the slice to 800 degrees Celsius.
- *Step Three:* Once heated, hammer the slice to be 1mm thin. Once this is achieved, roll slice into cylindrical shape.
- *Step Four:* Heat bead to 400 degrees Celsius. This step will give the bead a multicoloured hue. The bead is now complete and can be worn.
- Each step of this process is complex and shows a high level of knowledge and skill amongst the people of the society.

Cultural Implication

- These beads represent an important step in the progress of mankind, the methods employed in their creation were important precursors to how iron ore would come to be processed in the Iron Age.
- The formula for creating the beads with other materials is found in Asia Minor.
- Evidence of specialization and techniques are found in Egypt and Asia Minor at the start of the Iron Age.
- The first instance of iron being directly referred to in Egypt dates back to 1294 BCE, and the term used translates to "iron from the sky". This term was still used after the initial emergence of iron ore.
- Egypt has the earliest evidence of manipulation; however, meteoric iron was not exclusive to Egypt, as others have harvested and manipulated it in similar ways.
- All extant examples of meteoric iron has been found in graves, which suggests a funerary and religious connection to iron. This emphasizes the common understanding that meteorites were sacred gifts from the gods.
- Meteorites were believed to be thunderbolts, which is an understandable misinterpretation of the phenomena surrounding their fall to earth.
- Lightning has a strong connection to the gods Ammun and Zeus, which were known as the most powerful force in antiquity, so the metallic stones seen as the result of the gods were attributed similar powers.
- The high value placed on the beads found in Gerzeh becomes easier to understand, as well as the motivations that these prehistoric Egyptians may have felt to manipulate this divine material into a more pleasing and honorable shape.

References

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