The Art of the Harappan Microbead - Revisited

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Few items in the corpus of Harappan material culture reflect the technological prowess of Indus Civilization craftspeople and their penchant towards miniaturization as much as the steatite "microbead." These sub-millimeter sized ornaments have amazed and confounded scholars going back to the first ones to study them in detail, Ernest Mackay and Horace Beck. Over three decades ago, K.T.M. Hegde wrote the groundbreaking and influential article *The Art of the Harappan Microbead,* which detailed his observations and analyses of microbeads recovered from the Harappan site of Zhekhada in northern Gujarat. It was then his conclusion that these ornaments were fashioned from a steatite-clay paste, which he posited was first extruded through a specialized bead forming device and then fused by firing at an extremely high temperature. Hegde, however, never successfully replicated his proposed process and some scholars (such as Mark Kenoyer and Massimo Vidale) have since argued that microbeads were actually made through the reduction (i.e., cutting, drilling and grinding) of solid steatite. The paste vs. reduction debate has remained ongoing.

Recently, new observations of the steatite microbeads from Zhekhada have been made as well as of similar beads from several other sites including Chanhu-daro in Sindh and Harappa in the Punjab. The techniques employed include scanning electron microscopy (SEM), X-ray diffraction (XRD) and electron microprobe analysis (EMPA). A range of experimental studies were also conducted including an attempt to replicate Hegde's "plausible" device and procedure. The results strongly suggests that Harappan craftspeople made microbeads by cutting, drilling and grinding solid steatite rock rather than by forming them from a ground steatite paste. The most compelling evidence for this comes in the form of minute sawn steatite chips that are of the same average thickness and have perforations of the same diameter as finished microbeads. Many questions remain, however, and will be discussed including - What types of tools were being used to fashion these extremely tiny ornaments and what type of fiber were they being strung upon?

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