

## Stone tool evolution study illuminates early human development

For at least 2.6 million years, humans and our ancestors have been making stone tools by chipping off flakes of material to produce sharp edges. We think of stone tools as very rudimentary technology, but producing a usable tool without wasting a lot of stone takes skill and knowledge. That's why archaeologists tend to use the complexity of stone tools as a way to measure the cognitive skills of early humans and the complexity of their cultures and social interactions.

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[Abri Pataud Reused biface](#) [A] team led by anthropologist Željko Režek of the Max Planck Institute for Evolutionary Anthropology decided to study whether the length of the sharp, working edge of stone flakes changed over time relative to the size of the flakes. A longer, sharp edge is more efficient and takes more control and skill to create.

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Režek and his colleagues measured the edges of more than 19,000 stone flakes from 81 groups of artifacts from sites in Africa, southwest Asia, and Western Europe.

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The ability to adapt technique to context is actually pretty sophisticated, and that may be what's behind the increase in variation among flake edges over time. Looking broadly at all these sites, it appears that human culture got better at producing sharp stone flakes over time, even as hominins apparently learned to vary the results as needed.

**Read full, original post:** [New study tracks the evolution of stone tools](#)