

Sarig, R., Gopher, A., Barkai, R., Rosell, J., Blasco, R., Weber, G.W., Fornai, C., Sella-Tunis, T., Hershkovitz, I. How Did the Qesem Cave People Use their Teeth? Analysis of Dental Wear Patterns. *Quaternary International*, 398, 136-14. 2016.

**Abstract:** Dental wear pattern is an important source of information regarding dietary habits, food preparation, and human economic behavior. In the current study we present our preliminary analysis of the dental wear patterns of the Middle Pleistocene (420–200 kya) Qesem Cave teeth. Five types of tooth wear were studied: Occlusal wear, interproximal wear, subvertical grooves, buccal microwear and root striations. We found mild to moderate occlusal wear (stage range 2–4), the largest proximal facet on the M<sub>2</sub> medial was 15.3 mm<sup>2</sup>, presence of three subvertical grooves on the M<sub>2</sub> distal surface, a variety of microwear scratches (many are >200 μm long and >5 μm wide) and two types of root striations. The data obtained suggests that the Qesem Cave people possessed a strong masticatory system producing massive anterior component of force, and used small flints as food choppers.