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BEYOND DIET: USING DENTAL WEAR TO EXPLORE IRON AGE IIA PHILISTINE
LIFESTYLE

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Abstract

The Philistines have often been described as a brutish, culturally void population that waged war across the Aegean and Mediterranean Sea during the collapse of the Bronze Age. Recent skeletal evidence dating to the Philistine-occupied site of Ashkelon (Iron Age IIA) allows archaeologists to ask new questions about Philistine lifestyle, diet and cultural practices. Teeth provide a valuable record of both dietary and non-dietary activities over the course of one's life, thus teeth from 42 individuals were examined and analyzed using a light microscope with a profilometer attachment to observe dental macrowear (representing months and years before death) and microwear (representing days and weeks before death). This study approaches dental wear by a) quantifying average surface roughness (*Sa*) per tooth for each individual, and b) analyzing teeth in macroscopic wear categories for microscopic wear patterns. The results show that there are no statistically significant differences ($p < 0.05$) in *Sa* between adult males and females, nor between adults and children. There were no macrowear or microwear patterns exclusive to a given sex. The Philistine teeth of adults and children show a wide array of microscopic wear on the occlusal surfaces including wavy striations, deep parallel scratches, globular pitting and newly described rectangular pits. It is likely that most individuals used their teeth as a third hand during net making or for holding hard metallic objects (e.g. nails). Due to the considerable similarity of wear in this population to other coastal populations, these non-dietary activities may be related to lifestyles in a marine-based economy. The study concludes that these Ashkelon adult males, females and children were participating in similar paramasticatory tasks, providing archaeologists with new insight into cultural roles of the Iron Age IIA Philistines.