



### Assessing biological and cultural admixture in the Etruscan-Celtic population of Monterenzio Vecchio and Monte Bibeale (Bologna, Italy)

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The distribution of cultural variants over time and space results from cumulative processes that can be modelled in the same way as the transmission of genetic information. In addition to mechanisms of unbiased transmission and cultural selection, cultural change operates through episodes of human migration (*demic diffusion*) and the transmission of ideas alone (*cultural diffusion*). Ascertaining the degree of cultural admixture between biologically admixed populations is a substantive question in the study of human biocultural evolution. The present work investigates the cultural and biological effect of 4th century BC Celtic migrations on the funerary remains of a population of Etruscan descent uncovered at Monte Bibeale and Monterenzio Vecchio (Bologna, Italy). Archaeological evidence suggested the contemporary presence of individuals belonging to both groups in the same settlement. However, little is known about cultural and biological interaction between Celts and Etruscans in this context. Here about 100 individuals were sampled and analysed to collect evidence on different proxies: strontium isotopes is used to identify local/non-local individuals and to infer migratory patterns; non-metric dental traits measure the degree of biological relationship between sampled individuals and potential parent populations (Italian Iron Age; European Celtic groups); and variability in grave goods is quantified to infer the degree of (cultural) population structure based on provenance, age, and sex. Results expand on a previous pilot and shed light on change over time in biological and cultural admixture or segregation between endogenous and exogenous groups in a key context of pre-Roman occupation.