

River Terraces: A Context for Early Hominin Occupation and Dispersal in Anatolia?

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It is not surprising that Palaeolithic archaeologists have been attracted to rich fossil and artefact-bearing locations where research effort can be maximized based upon substantive physical evidence. Often however, these types of finds occur in natural repositories such as caves or where remains are trapped in travertines or tufas. Unfortunately, although these repositories generally have well-constrained internal stratigraphy they remain isolated from the wider geological context, limiting their correlation with the broader regional stratigraphical record where often more extensive palaeoenvironmental data exists which could potentially provide better context for the archaeology.

In northwest Europe artefact-bearing river sediments have been widely-used to constrain and provide context for the Palaeolithic record. In areas of surface uplift, these former floodplains lie beneath river terraces which form a staircase flanking modern valleys, with progressively older features at higher altitudes above the current floodplains. The key challenge in utilizing this fluvial archive was to understand the stratigraphy of the river terrace sequence and establish a geochronology for each successive level. Fortunately, fluvial archives often contain materials suitable for a wide-range of age estimation procedures. Critical to the success of these studies is the fortuitous continuity of large-scale river terraces across whole catchments, allowing for unequivocal linkage of isolated artefact finds over tens to hundreds of kilometers.

Over the past 15 years we have started to apply the methodologies established in these earlier studies to river systems critical to the understanding of early hominin dispersal. Although our efforts have focused on establishing stratigraphy, palaeoenvironmental change records and geochronology, ultimately these frameworks can be utilized as a context for the artefacts and fossils they contain. Here we will discuss the Early Pleistocene fluvial archive of the Gediz River in Western Turkey and then describe our current pilot study on the Kura River in NE Turkey. Our aim is to demonstrate the potential of river terraces sequences to enhance our knowledge of the early Palaeolithic record in Turkey by providing a secure stratigraphical framework for artefact finds.