Hydraulic landscapes in Mesopotamia: the role of human niche construction

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Abstract Human niche construction emphasizes the capacity of organisms to modify their environment and thereby influence their own and other species' evolution. For the hydraulic landscapes of southern Mesopotamia we employ geoarchaeological data, remote sensing and ancient texts to suggest that major irrigation systems in the central Mesopotamian plains were a form of herringbone system and that they developed through human niche construction as a result of the elaboration of crevasse splays along raised levees. The remarkable duration of these systems (some 4000 plus years) suggest that (a) they were sustainable over many millennia and (b) the short component canals could be managed by small lineages. However, equally they could be brought under the administration of the state