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黄河中游晋陕峡谷段全新世晚期洪水滞流沉积研究 [点此下载全文](#)

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摘要:

通过对黄河晋陕峡谷的深入调查研究, 在延长永和县河段发现了典型的全新世晚期洪水滞流沉积剖面。在剖面征和沉积环境及其分布特征进行观察, 并进行了系统采样。在实验室对沉积物样品进行了粒度成分、磁化率、烧失量测定。通过综合分析论证, 表明黄河中游晋陕峡谷全新世晚期洪水滞流沉积物以粉砂为主, 细砂含量次之, 粘粒含量低。其沉积学分类为细砂质粉砂, 是黄河洪水悬移质泥沙在高水位滞流环境下的沉积物。将其与典型的全新世风成黄土其粒度成分比黄土和古土壤更粗, 粒级分布更为集中。此外, 将其与延河郭家川全新世洪水滞流沉积物对比, 发现研究结果对于揭示黄河中游洪水水文泥沙特性及其历史演变具有重要意义。

关键词: [黄河中游](#) [晋陕峡谷](#) [洪水](#) [滞流沉积物](#) [全新世](#)

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Abstract:

Field investigation was carried out along the Shanxi—Shaanxi Gorges in the middle reaches of flood slackwater deposit (SWD) of the late Holocene was identified at the Fotangcun site in the reach of the Yanhe River. Sediment samples were taken after detailed observation of the texture and structure of the SWD prof Guojiachuan site in the lower reach gorges of the Yanhe River, from the Holocene loess—soil at the site were also taken for a comparative study. Grain size distribution, magnetic susceptibility, loss on ignition content were measured in the laboratory. The results show that the flood slackwater deposit of the late Holocene is sandy silt which were deposited from the suspended sediment in the floodwater. Therefore they were fresh sediment with little weathering and pedogenesis. The flood slackwater deposit from the Yanhe River have the similar grain size distribution with the loess and palaeosol. However, the loess and palaeosol are much finer than the slackwater deposit and they have very high clay content. This indicates that the SWD of the Yellow River are fresh sediment with little weathering and pedogenesis. This is of great significance to establish a long time scale hydrological data for flood control and hydrology in the middle reaches of the Yellow River.

Keywords: [middle reach of the Yellow River](#) [Shanxi—Shaanxi Gorges](#) [flood](#) [slackwater deposit](#) [Holocene](#)