
湖北鄂州古代冶炼遗物初步分析

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摘要: 本文对湖北鄂州市 16 处遗址 47 枚炉渣运用 SEM-EDS 方法进行科学研究。结果表明, 这批炉渣分为两大类, 第一大类与冶铜有关, 其中何垸湾遗址发锡青铜冶炼迹象。第二大类与冶铁有关, 又可分为 3 个亚类。I 类为块炼铁渣, 宋明时期遗址上出现该类渣反映了传统技术的延续, 其技术水平要比广西贵港地区汉至六朝时期的块炼铁技术高。II 类炉渣相应的冶金活动与生铁的熔化铸造有关。III 类为生铁冶炼渣。本批炉渣的科学分析为完善鄂东南地区古代冶金技术研究提供了新的材料。

关键词: 鄂州市; 炉渣; 锡青铜; 块炼铁; 生铁; 生铁熔化; 冶金考古

A Primary Study on the Smelting Relics in Ezhou, Hubei Province

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Abstract: A total of 47 slag samples were collected at 16 sites in Ezhou City of Hubei Province. These samples were analyzed with SEM-EDS to further understand the smelting process. The examinations indicated that the slags could be divided into two categories, the copper smelting slag and iron smelting slag. The smelting products of the first category were associated with copper smelting, and the Cu-Sn alloy was obtained at the Henaowan Site. The second major category was divided into three subtypes, associated with iron smelting. The first subtype produced bloomery iron, a continuous tradition of the smelting sites dated to the Song and Ming dynasties, and the technology was likely more advanced than the smelting technology of the Guigang City of Guangxi Autonomous Region (~2-5c.AD). The second subtype was associated to the residues of cast iron smelting and casting, while the third subtype were cast iron slags. The evidence of smelting production in Ezhou City indicated that it played an irreplaceable role in studying the ancient metallurgical technology in Southeastern Hubei.

Keywords: Ezhou City, slag, Cu-Sn alloy, bloomery iron, cast iron, cast iron melting, archaeometallurgy