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ABSTRACT BOOK

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COVER IMAGE

Padua, Italy at Prato della Valle by Sean Pavone. Site: elements.envato.com

The Power of clay: geomaterials and resources in Museum Learning. Case study from the Exhibition "From Babylon to Baghdad: On Hammurabi's Path" at the University of Catania

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Museums act as dynamic cultural centres that encourage dialogue and curiosity through interactive and inclusive experiences. Ensuring scientific accessibility also means involving groups often excluded from traditional museum strategies, such as young people. In this spirit, the Museo delle Mirabilia e dei Saperi Siciliani (University of Catania) promotes cultural awareness through its university collections (Barone et al., 2023, 2024). An event worth mentioning was the international exhibition From Babylon to Baghdad - On Hammurabi's Path, with exhibits from the British Museum (London), the Pergamon Museum (Berlin) and the Royal Museums (Turin). Focusing on Mesopotamia in the second millennium BC, the exhibition conducted play-based workshops that simplified complex topics for children by highlighting geomaterials and integrating geological and archaeological data.

Linking geological data with archaeological evidence provides critical interpretative insights regarding raw materials, their treatment, and processing for the reconstruction of ancient production technologies and supply systems. Clay—ubiquitous in Mesopotamian material culture—is a fundamental geo-resource whose study enables reconstruction of the manufacturing process of ceramic production. Understanding its mineralogical composition, provenance, and transformation through firing allows archaeologists and geologists to contextualise artifacts within broader technological, economic, and environmental frameworks. These aspects were central to the workshops, which aimed to trace the sustainable use of natural resources and technological innovation across time (Flewitt et al., 2023: 139).

Hands-on activities encouraged participants to explore the connection between geology and archaeology through direct manipulation of clay and other geomaterials. Children recreated exhibition objects—such as Mesopotamian figurines and cylinder seals—using silicon molds and 3D-printed tools, simulating ancient techniques and experimenting with raw materials derived from geological processes. This tactile engagement encouraged critical comparisons with modern materials (e.g., plastic), fostering reflection on sustainability and resource use. A key geoscientific component was the use of digital tools simulating thin-section analysis under optical microscopy. Older students explored the mineralogical texture of ceramics, learning to identify inclusions and ceramic fabric.

These lab experiences emphasised the full interpretative pathway—from excavation to display—showing how geomaterial analysis is vital for reconstructing ancient technologies and enhancing heritage communication. Incorporating museum education strategies like child–adult, child–environment, and child–technology interaction (Andre et al., 2017), the initiative engaged children on sensory, emotional, and cognitive levels (Flewitt et al., 2023: 139). It demonstrated how interdisciplinary storytelling by archaeologists, geologists, and heritage scientists fosters geoscientific knowledge through cultural participation—contributing to greater accessibility, literacy, and inclusion.

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