

"Looting obliterates the memory of the ancient world and turns its highest artistic creations into decorations, adornments on a shelf, divorced from historical context and ultimately from all meaning." (1)

## **Special Session Description**

Cultural heritage is a non-renewable resource. As the demand for artifacts increases, criminal groups respond promptly with an unfailing supply of illegally obtained or excavated objects by plundering cultural sites, destroying their context and significance (2). As noted by Renfrew, "the single largest source of destruction of the archaeological heritage today is through looting – the illicit, unrecorded and unpublished excavation to provide antiquities for commercial profit"(3).

Based on FBI and UNESCO records, looting and trade of antiquities has grown into a multi-billion dollar industry and constitutes the third most profitable illegal traffic after narcotics and arms (2). Moreover, from investigations carried out on the illicit trafficking of masterpieces in the world, it has been estimated that from illegal excavation to final sale, the value of the most beautiful masterpieces increases 100 fold, a greater growth than that of drugs.

Insufficient standardized procedures, the lack of reliable data and the pressing need for improvement of methods employed in forensic practice has been recognized by the National Academic of Sciences with the publication in 2009 of a scientific report stating: "It is clear that change and advancements, both systematic and scientific, are needed in a number of forensic disciplines to ensure the reliability of work, establish enforceable standards, and promote best practices with consistent application" (4). This is also true in the case of looting and illicit trade of antiquities. As the origin of looted artifacts is primarily unknown, typological and stylistic studies do not always provide strong support in criminal justice cases for the artifacts' attribution and repatriation. International trade laws, bilateral treaties and memoranda are also insufficient to protect them. Red lists (5) and other documents produced by international organizations to provide support to law enforcement agencies and enhance awareness among stake holders are generic documents and pose challenges in the identification of materials by the non-expert (for example customs officers).

The challenges pertaining to these illegal activities, from the recovery of artifacts to scientific investigations including dating and provenance, pose many technological difficulties. Methods providing proof beyond reasonable doubt are therefore required to help assign the precise location of origin/provenance through: chemical composition analyses; isotopic fingerprinting; or through other types of analysis that can identify diagnostic markers for an accurate attribution.

## Special Session Forensic Science Investigations in Art and Archaeology

This special session at ISA 2014 aims to address this pressing necessity through the presentation of applied research and development to enhance current forensic practices that provide new knowledge in the field of forensics and criminal justice. More specifically, this session will welcome papers with the following objectives:

- Increase knowledge of physical evidence of material culture through the study of chemical composition taking into consideration alterations that might have occurred within the burial environment.
- Evaluation of portable technologies (imaging and spectroscopic) used in archaeometry and geosciences for applications in criminal justice cases generating new knowledge in the scientific and forensic literature.
- Development of new multi-scale approaches to assess the value of physical evidence in criminal justice settings (authentic, forgery or fake and material degradation) using suitably applied technology (both portable and laboratory bench) with improved toolsets and procedures for a) onsite screening and b) precise material characterization and sourcing (overcoming issues of previous forensic analytical protocols).
- Development of centralized databases to help interpret forensic data from physical evidence.

The importance of this special session extends beyond its pure scientific merit, to include a subject of high societal value pertaining to the pillage of archaeological sites and the smuggling and looting of antiquities that has become a widespread problem that does not only affect the country that has been plundered but the entire global community. It further represents a truly interdisciplinary area involving archaeologists, archaeological scientists, academics, law enforcement practitioners, researchers, students and stakeholders.

## **Cited References**

- 1. R. Atwood, Stealing History, Tomb Raiders, Smugglers and the Looting of the Ancient World. (St. Martin's Press, New York, 2004).
- 2. B. Bowman, Journal of Contemporary Criminal Justice **24**, 225 (2008).
- 3. C. Renfrew, Loot, legitimacy and ownership: the ethical crisis in archaeology. (Duckworth, London, 2000).
- 4. National Academy of Sciences, "Strengthening Forensic Science in the United States: A Path Forward" (Washington, D.C., 2009).
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