

Daira Sabz

Consulting and Engineering Group

Landscape Archaeology: Integrating Tradition and Technology



At Daira Sabz Consulting and Engineering Group, we are pioneering a holistic and responsible approach to landscape archaeology in Afghanistan and beyond. By merging local knowledge, modern technology, and scientific rigor, we protect and uncover cultural landscapes—aligned with UNESCO World Heritage principles and ICOMOS (International Council on Monuments and Sites) charters.

Our work adheres to the ICOMOS Charter for the Protection and Management of the Archaeological Heritage (1990) and the UNESCO Operational Guidelines for the Implementation of the World Heritage Convention (2023).



What is Landscape Archaeology?



Landscape archaeology moves beyond traditional excavation by exploring how past societies interacted with entire environments—settlements, agriculture, sacred sites, and roads—analyzing both visible and buried features through multidisciplinary techniques and community engagement.

Our Integrated Methodology

1 – Community Knowledge Integration

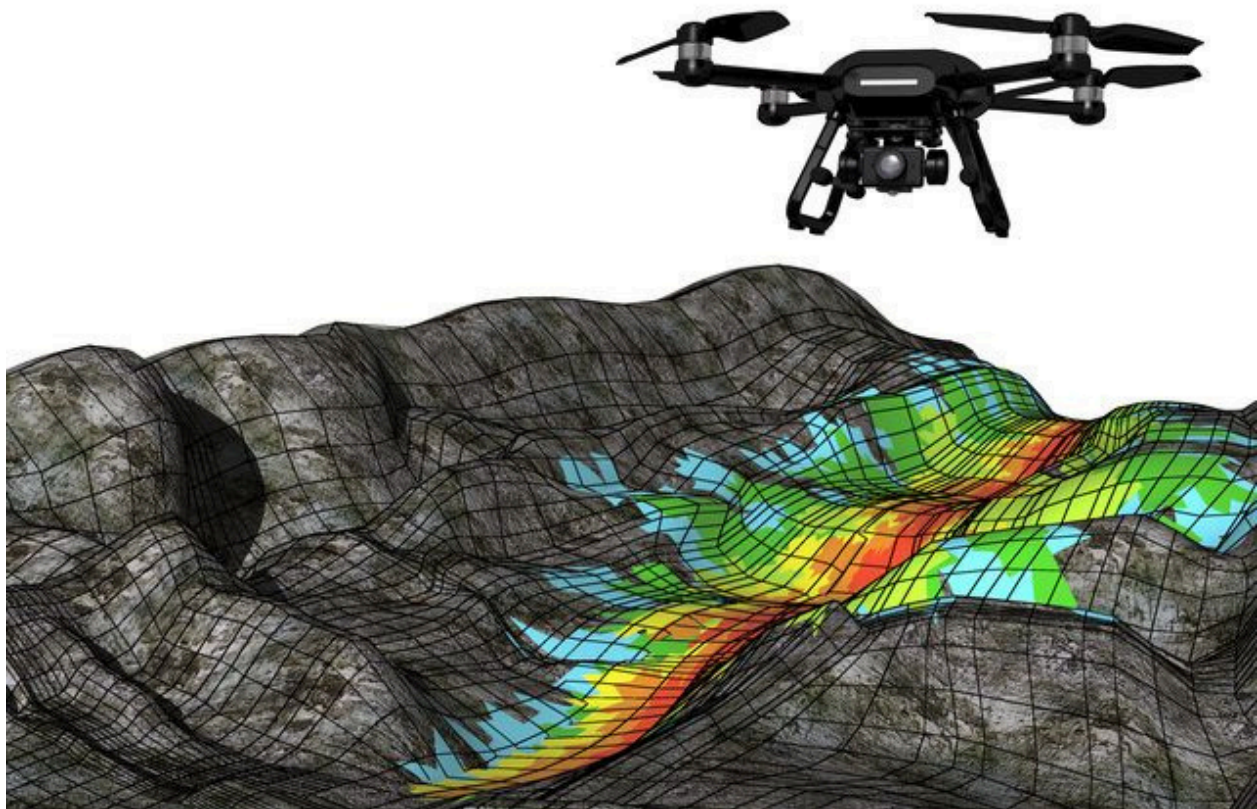
We embed the deep cultural memory of local communities into our archaeological investigations—respecting indigenous stewardship and oral histories as part of the archaeological record.



2 – Advanced Technology & Data Science

We apply cutting-edge tools such as:

- **Cloud strategy and migration (AWS, Azure, Google Cloud)**
- **Infrastructure-as-a-Service (IaaS) and Platform-as-a-Service (PaaS)**
- **Hybrid and multi-cloud management**
- **Cloud governance and cybersecurity**



3 – Standards & Ethical Guidelines

Our work is grounded in internationally recognized protocols:

- ICOMOS Charter for Cultural Routes (2008)
- UNESCO Recommendation on Historic Urban Landscape (2011)
- ICOMOS Ethical Principles (2017)
- Afghanistan's National Environmental Protection Agency (NEPA) heritage and EIA frameworks
- German Denkmalschutz (Heritage Protection Law)



DEUTSCHE STIFTUNG
DENKMALSCHUTZ



ICOMOS

ICOMOS
INDIA



2011 UNESCO
Recommendation
on the
Historic
Urban
Landscape



Environmental Archaeology & Heritage Risk Management

We assess climate vulnerability and land use threats using the ICOMOS Climate Heritage Network Toolkit and Disaster Risk Management (DRM) practices in archaeology.

Why It Matters

- **Cultural Resilience:** Protecting heritage helps communities strengthen identity and cultural continuity.
- **Sustainable Planning:** Archaeological evidence informs modern land use and climate-smart urban planning.
- **Risk Mitigation:** Early heritage detection during mining, infrastructure, and energy projects avoids costly delays and cultural loss.



Services We Offer

- [LiDAR & Drone Mapping](#)
- [Subsurface detection and terrain modeling for site identification](#)
- [GIS-Based Landscape Modeling](#)
- [Integrated analysis of settlement networks, agriculture, and sacred sites](#)
- [3D Heritage Reconstruction](#)
- [Virtual modeling and immersive environments for education and site management](#)
- [Heritage Risk Mapping](#)
- [Climate, conflict, and development threat modeling using ICOMOS frameworks](#)
- [Archaeological Impact Assessments](#)
- [Cultural heritage integration into Environmental and Social Impact Assessments \(ESIA\)](#)
- [Capacity Building](#)
- [Training local archaeologists, site stewards, and youth on cultural heritage protection](#)
- [Community-led Documentation](#)
- [Participatory mapping and digital storytelling with elders and local guides](#)

✓ Selected Projects

Aynak Copper Mine ESIA (Client: MCC-JCL Aynak Minerals Company)

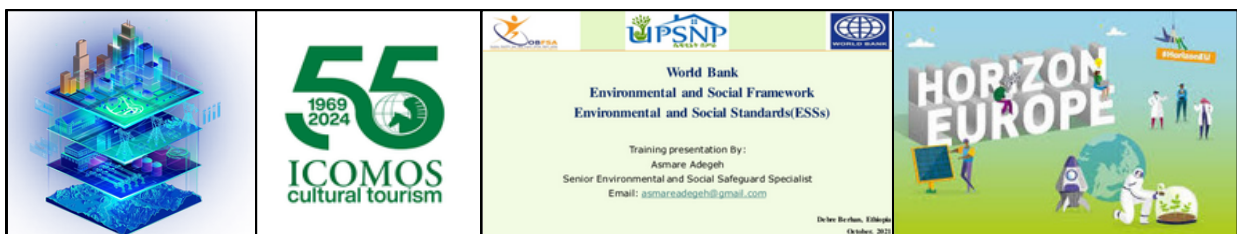
Assessment of mining impacts on cultural heritages of Mes Aynak area and providing recommendation for as per the **UNESCO guidelines, Cultural Protection Law of Afghanistan and NEPA guidelines.**



🌿 Global Trends & Alignment

We incorporate global trends in digital archaeology and cultural heritage management, including:

- **Heritage Digital Twins for site resilience simulation**
- **ICOMOS Culture-Nature Journey frameworks**
- **World Bank and UNESCO Environmental and Social Frameworks (ESF)**
- **EU Horizon projects in spatial humanities and landscape stewardship**



Let's Preserve the Past for the Future

Daira Sabz
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Your strategic partner for development and sustainability