

### Post-excavation treatments of earthen archaeological sites

Chamsia Sadozaï, Sébastien Moriset

### ▶ To cite this version:

Chamsia Sadozaï, Sébastien Moriset. Post-excavation treatments of earthen archaeological sites. 12th International Congress on the archaeology of the ancient near east (ICAANE), Apr 2021, Bologne, Italy., pp.1. hal-03209427

HAL Id: hal-03209427

https://hal.science/hal-03209427

Submitted on 27 Apr 2021

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



<u>r</u>

S

0

ΘX Θ

+ 2000

# Post-excavation treatments of earthen archaeological sites





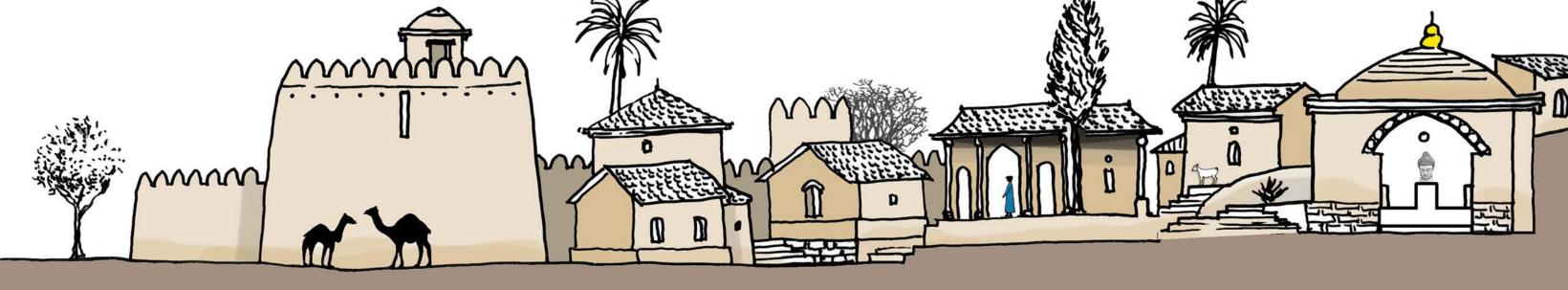


Chamsia Sadozaï, Sébastien Moriset, CRAterre

Archaeological sites have a complex life cycle. After their initial occupation, their death is initiated by the abandonment and slow decay processes. Their state is stable until the arrival of the archaeologists, the discovery giving them a new life with new threats. The preservation is therefore a real challenge. Interesting approaches have proven that solutions exist, easy to implement by archaeologists as soon as they are accompanied technically by conservators.



The initial phase of a building lifecycle is its conception within an urban or rural context, with several features related to its environment (climate, sismicity, geology, material disposal, etc), to the economic situation of the inhabitants and also to the social and cultural dimensions of the place.



For various reasons (environmental, economical, political) the settlement is abandonned. Maintenance is not ensured, sometimes the place is plundered for material reuse or even for precious artefacts finding. Usually some traces of sporadic occupation are reported, a room for storage, some enclosed walls as a fence for cattle, fireplaces protected from the wind. The natural erosion process is activated.



Abandonment

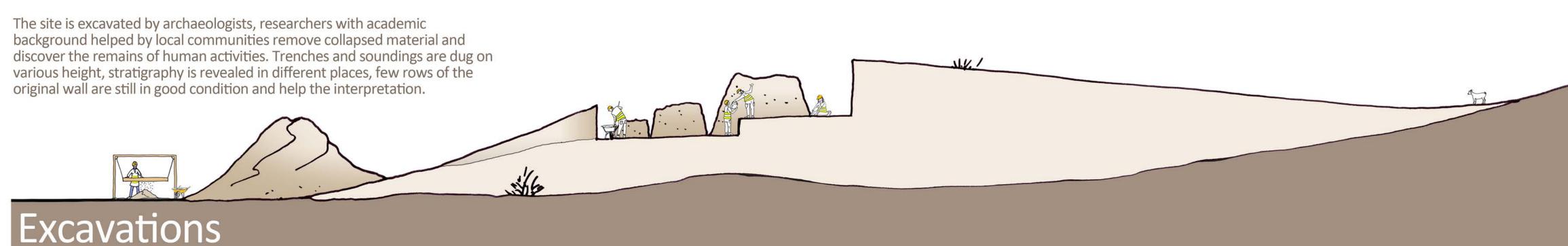
Occupation



After centuries of wind blowing, sundrying, raining, snowing, animal nesting and other natural factors, the collapsed material from the roofs and walls fill up the voids like rooms, streets or squares and smoothly created a hill in the landscape. The archaeological site is born and its state of conservation is stable.

## Stabilised ruin





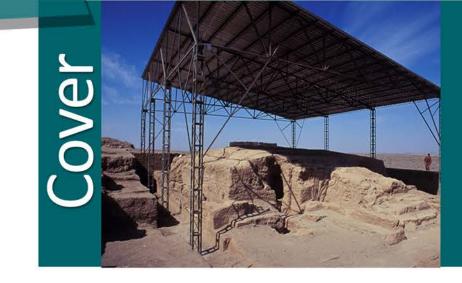




This was the most common solution decades ago. There is no intervention, trenches are left exposed. Damages are directly affecting the excavated architectural remains. The loss of archaeological data is irreversible.



This is one of the favourite options implemented by archaeologists. Spoil material from the excavations is reused to rebury the remains and preserve them for the future. A layer of porous geotextile is placed in between the original structure and the compacted soil to mark the difference.



processes are reactivated, actually accelerated, and the state of conservation is unstable.

After the first excavation of the site, between two campaigns or even after the full excavation project, what is happening? Trenches are creating water pools and fragiles surfaces are melting or powdering... The damaging

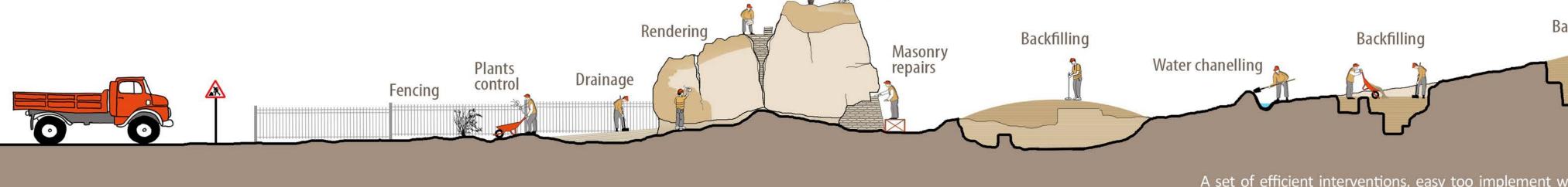
Stakeholders are invited to sit together to define the strategy for the future of the site. Three immediate

emergency options are observed when implemented by the team of archaeologists. But other options are possible, to stabilise the state of conservation and come back to a virtuous cycle of decay and maintenance.

> This option is priviledged for very fragile structures in addition to physical consolidation. It can create more problems if it is not well implemented, especially regarding the suurounding drainage. The shelter itself requires monitoring and maintenance which needs to be planned and budgetted for.

## **Conservation options?**



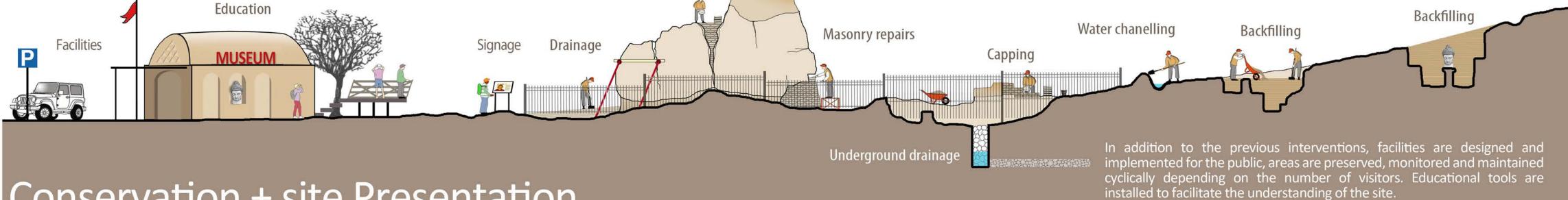


### Preventive conservation

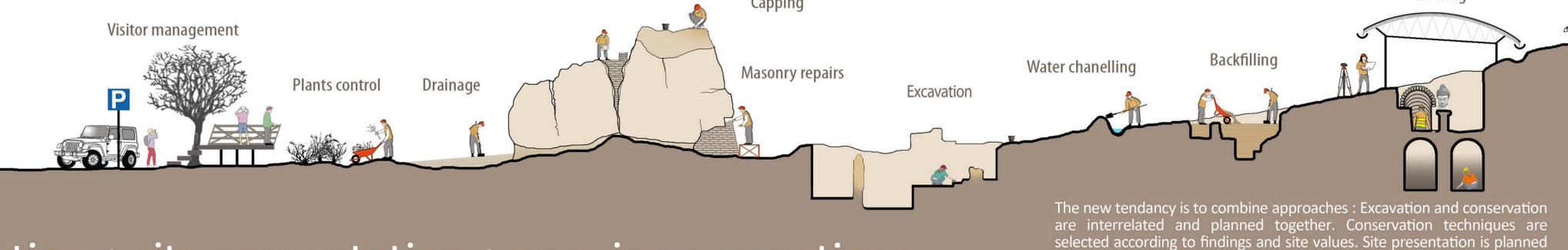
A set of efficient interventions, easy too implement with locally available means slow down the decay processes and preserve the remains structurally and superficially. The remains are safe and preserved for future excavations or conservation programmes.

simultaneously to enable visitor experiment the whole research process.





### Conservation + site Presentation





Conservation + site presentation + ongoing excavations