REVISIT · FIELD APPLICATION · ARCHAEOLOGY AND BUILT HERITAGE

Revisit the survey's viewpoint.

Return to a site with a phone, and see it as it was.

A site has been surveyed. Months or years later, the archaeologist or the conservator comes back with a simple phone and aims at the structure. ReVisit recognises the viewpoint and presents the site as it was on the day of the survey, seen from exactly the same spot. A lacuna that has spread, a lost tessera, an open crack, a restoration: the expert eye judges, on two images that can at last be superposed.

Garni, Armenia: the bathhouse mosaic, two years on



Left, the digital twin of the 2024 survey, rendered from the phone's viewpoint. Right, the photograph taken with the phone in 2026. Between the two, restoration has begun: the lacunae have been filled with gravel and protected, the tesserae cleaned. ReVisit does not say so: it shows it.

2 years
between the survey and the return to the site

28 of 29
phone photographs relocalised on the twin

9 mm
median deviation on the mosaic surface, from 1.5 m away

0 targets
no beacons, no network: nothing to install on site

Relocalisation computed after the mission, the 2024 twin being completed with views taken two days later. With the 2024 survey alone: 8 photographs out of 29.

THE WORK AT GARNI

The floor mosaic of the Garni bathhouse, 3rd century AD, is being restored within the ARC-HE-TOUR-DEV project, coordinated by the University of Florence in collaboration with ISMEO and the Opificio delle Pietre Dure, and funded by the Italian Agency for Development Cooperation.

2024 SURVEYS AND 2026 IMAGES
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DIGITAL TWIN AND REVISIT
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image4d.fr

What Garni taught us

The survey. On 30 October 2024 the bathhouse floor mosaic is surveyed in situ: 430 photographs, 36 total-station targets. That survey becomes the digital twin, the dated reference state.

The return. On 6 and 8 October 2026 the team returns and photographs the floor with a phone, hand-held, in minutes. For each photograph, ReVisit renders the 2024 image from the same spot.

The lesson. When a site has changed a lot, the old survey no longer relocalises everywhere. A few views from the visit itself, added to the twin, restore it: the twin stays up to date, visit after visit.

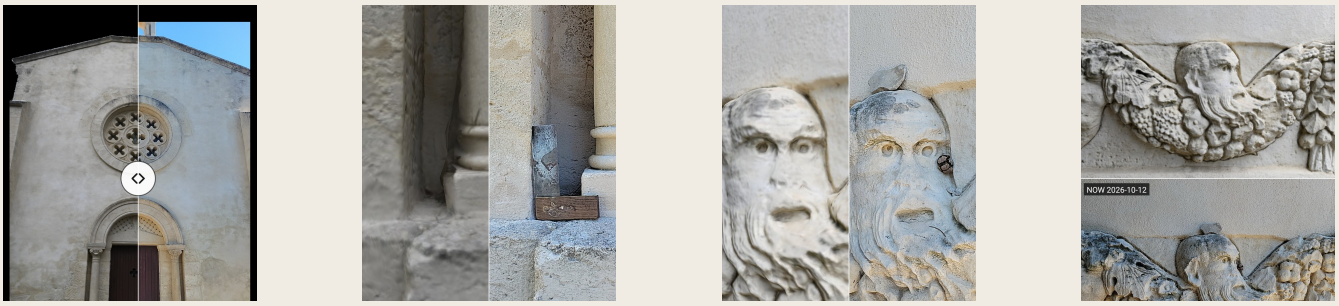




The mosaic in the 2024 survey, 3.3 × 3.2 m.

Alleins, Provence: the Saint-Pierre chapel

The chapel was surveyed in October 2026: two twins, the west facade and the north-east corner, 331 and 400 photographs. Days later, ReVisit relocalises a phone's photographs to within 3.6 mm on the stone (north-east corner, 107 photographs) and shows survey and present state as a curtain, side by side, or top and bottom.



Screens of the application at Alleins: the survey and today's photograph, from the same viewpoint. On two of them, an object has been placed since the survey.

How it works

1. A digital twin of the site, built by photogrammetry and laser scanning. It fixes the reference state at the survey date.
2. An application that computes, in the phone, its position and orientation relative to that twin.
3. A virtual camera identical to the phone's, which renders the twin from that viewpoint.

The viewpoint is free: the reference image is produced for any position, not only those of the survey.

Protected sites. Each site is a separate data package, opened with its holder's code, then usable offline.

Two versions, one site

In the field, the phone. A light version, Android and iOS: aim, compare on the spot, with no network.

At the desk, ReVisit Studio. On a computer, Mac or Windows: go back over the visit at leisure and archive a report of each visit.

Today, and soon. ReVisit guarantees the viewpoint and leaves the judgement to the expert: it makes no diagnosis. In the near future: automatic detection of the areas that have changed and their measurement in 2D, which the expert confirms or dismisses.

Alleins: survey and photographs by image4D, 2026. The work and credits for Garni are overleaf.

Have a site to revisit?

Tell us about the site, the survey you have and what you want to monitor. We reply with a feasibility view, not a sales pitch.

The ReVisit page: image4d.fr/en/revisit.html

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