

One Wall, Many Challenges: The Conservation of Late Roman Painted Wall Plaster at Sardis

By Jessica Pace¹ and Evelyn (Eve) Mayberger²

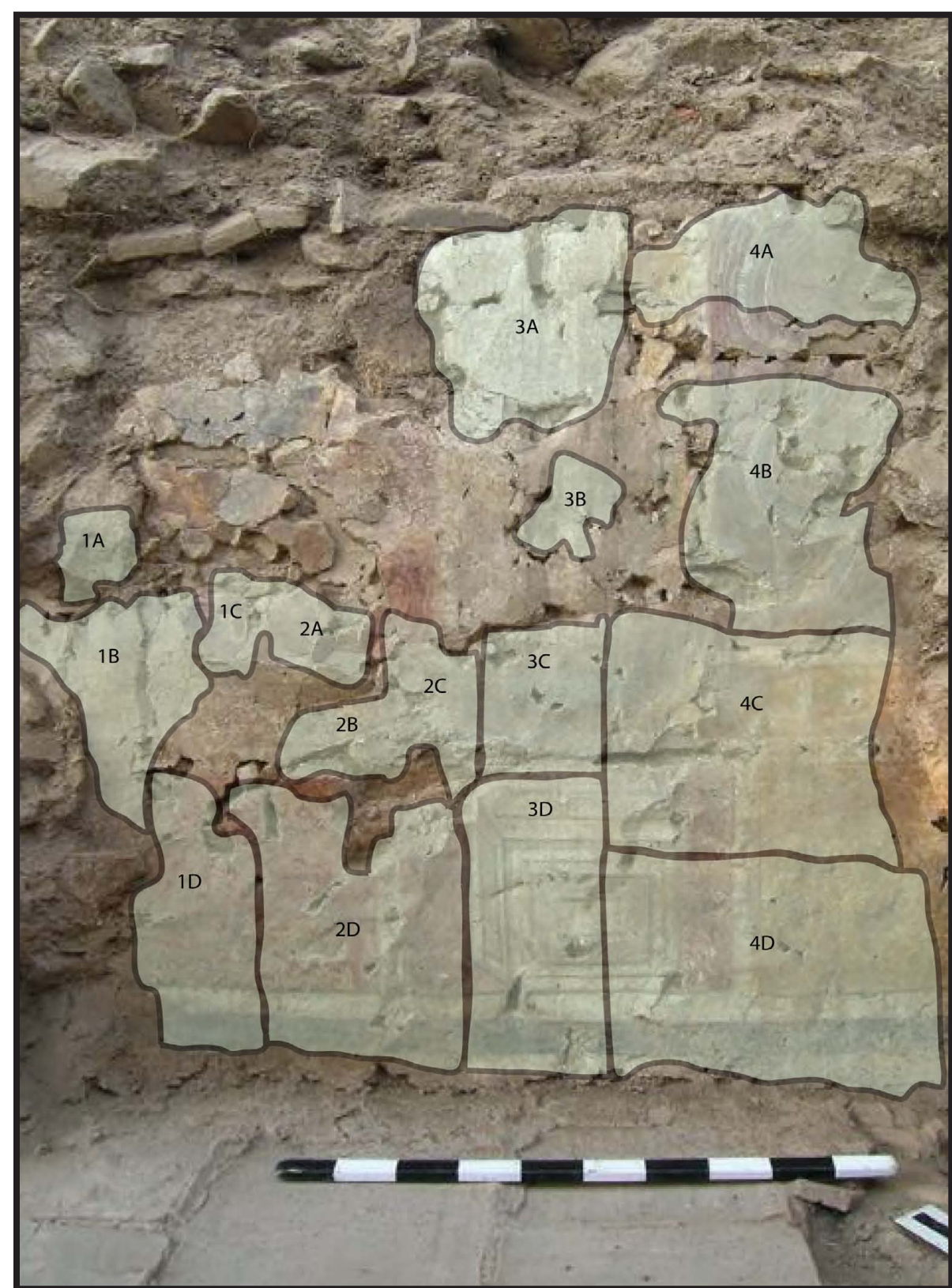
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Three Approaches to One Wall

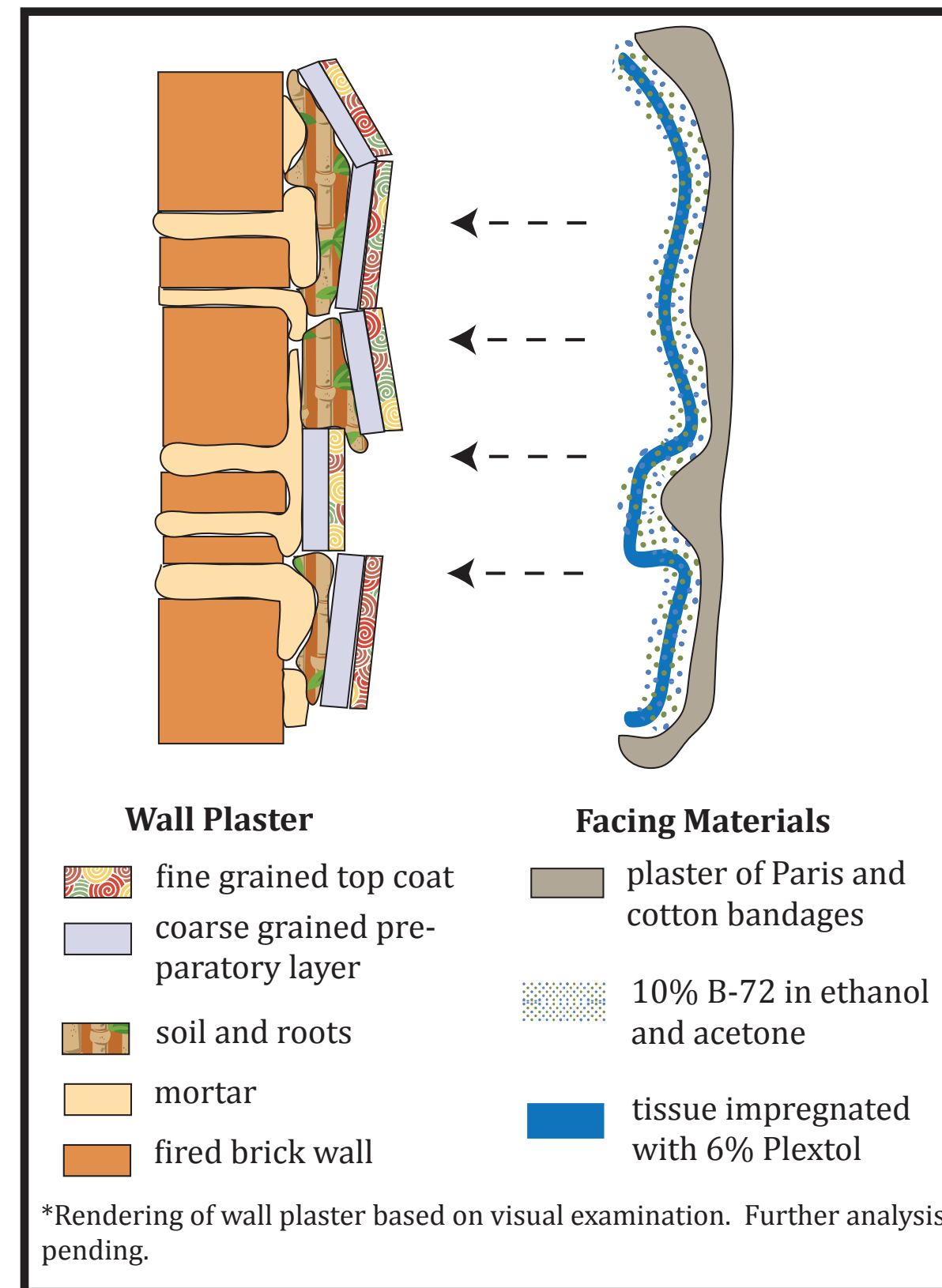
In 2014, reopening and expansion of trenches in an archaeological area called Field 55 posed numerous challenges to the conservation of painted wall plaster found inside two adjacent Late Roman Rooms. Differing environmental factors and treatment history produced diverse condition issues for sections of wall plaster that are otherwise comparable in material and structure. These issues required several courses of treatment to suit the distinct needs of each section.

Introduction to Sardis

The site is located in Turkey, approximately 60 miles east of Izmir. Sardis rose to prominence in the 7th-6th centuries BCE as the capital of the Lydian Empire. The site remained an important metropolis under Persian rule, as well as during the Hellenistic and Roman periods.



Above: After treatment photo from 2005; Digital overlay of the areas that remained in 2014



Above: Drawing of the wall plaster stratigraphy based on examination and facing materials

1. Lifting

Background – Consolidation with Primal AC-33 and edging with plaster of Paris were undertaken in 2005. The wall was covered with geotextile and reburied at the end of the season.

Condition – In 2014, approximately 30% of previously treated plaster was lost and the rest was in very fragile condition. Damage occurred as a result of root growth and the plaster of Paris edging, which contributed to erosion of the ancient mortar and breakage of original plaster.

Treatment – A grid and numbering scheme was assigned. Wall plaster was faced with tissue paper, 6% Primal AC-33, and 10% B-72 in 1:1 acetone and ethanol, then covered with cotton bandages impregnated with plaster of Paris. Sections were loosened with bamboo skewers, lifted from the fired brick substrate, and placed in storage.



Above: Newly excavated wall plaster being treated in-situ

2. In-situ Stabilization

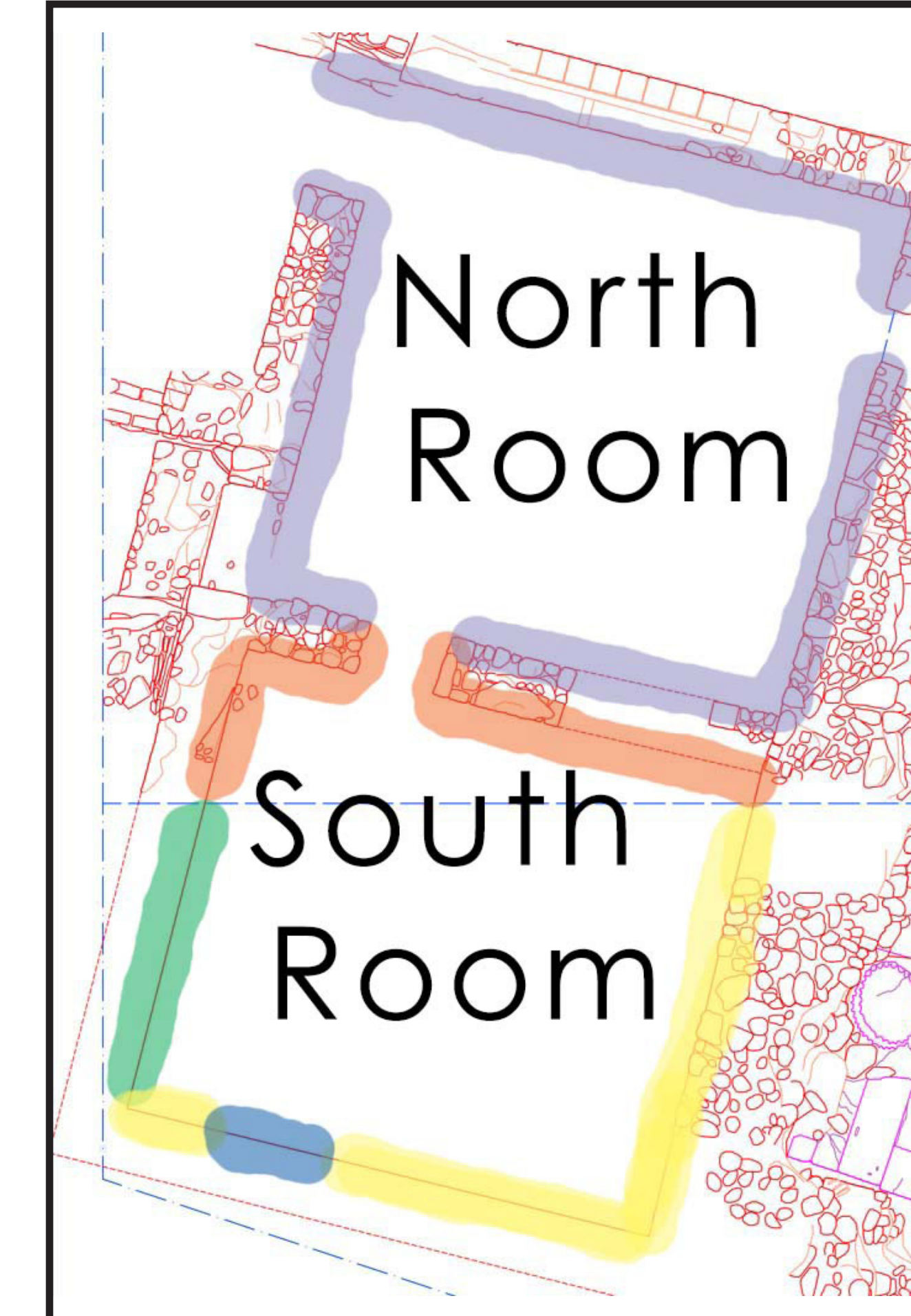
Background – In 2014, expansion of the trench revealed more painted wall plaster.

Condition – Newly excavated wall plaster was in more robust condition.

Treatment – The surface was consolidated with 6% Primal AC-33. Edges and voids were filled with a mortar mixture of 4:2:3 sifted sand, silty soil, and lime putty. Malta grout slurry was injected into fine surface cracks. The area was kept damp for five days to allow the mortar to set. The surface was cleaned to reveal the painted design.



Above: Mortar edging, injection grouting with a syringe, and surface cleaning



Right: Closing the Field 55 trench for the 2014 field season. All nearby trees were removed, the wall was passively capped with tiles and covered with a layer of geotextile, and the sector was roofed and sealed for the off-season.



3. "Reburial"

Due to time constraints, wall plaster excavated toward the end of the season was "reburied". Brick retaining walls were constructed in front of the wall plaster and sifted sand filled the space in between.

Left: Architectural drawing of the two rooms, Field 55 by Brianna Bricker; Green (stabilized in-situ), Yellow (stabilized & surface cleaned in-situ), Blue (lifted), Orange (unexcavated), and Purple ("reburied")

Conclusion: Conservation as a Logistical Challenge

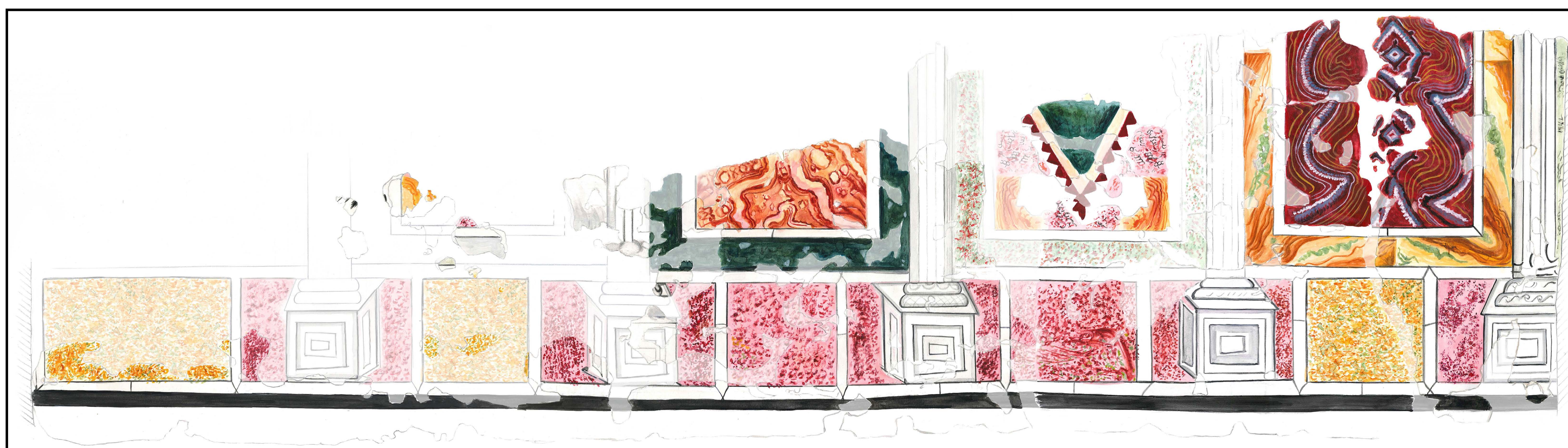
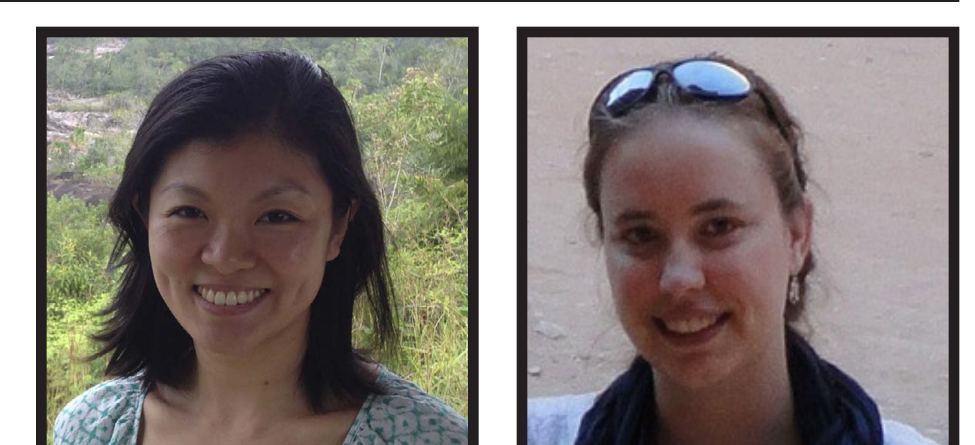
In each scenario, time became a crucial and limited resource. In the first case, lifting the wall plaster saved it from imminent destruction and bought time for in depth examination and treatment in the future. In the second case, an investment in a time-consuming treatment required adjustments in the excavation schedule and conservation personnel, but will yield better long-term results. In the last case, time ran out and preventive measures must be relied upon to safeguard the object until it can be treated during the following season.



Above: Eve and Maummer Bey working in Field 55 on the wall plaster

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Above: Illustration of the South Wall by Cathy Alexander, showing existing plaster and reconstruction. Dimensions: 6.19 x 1.70 meters