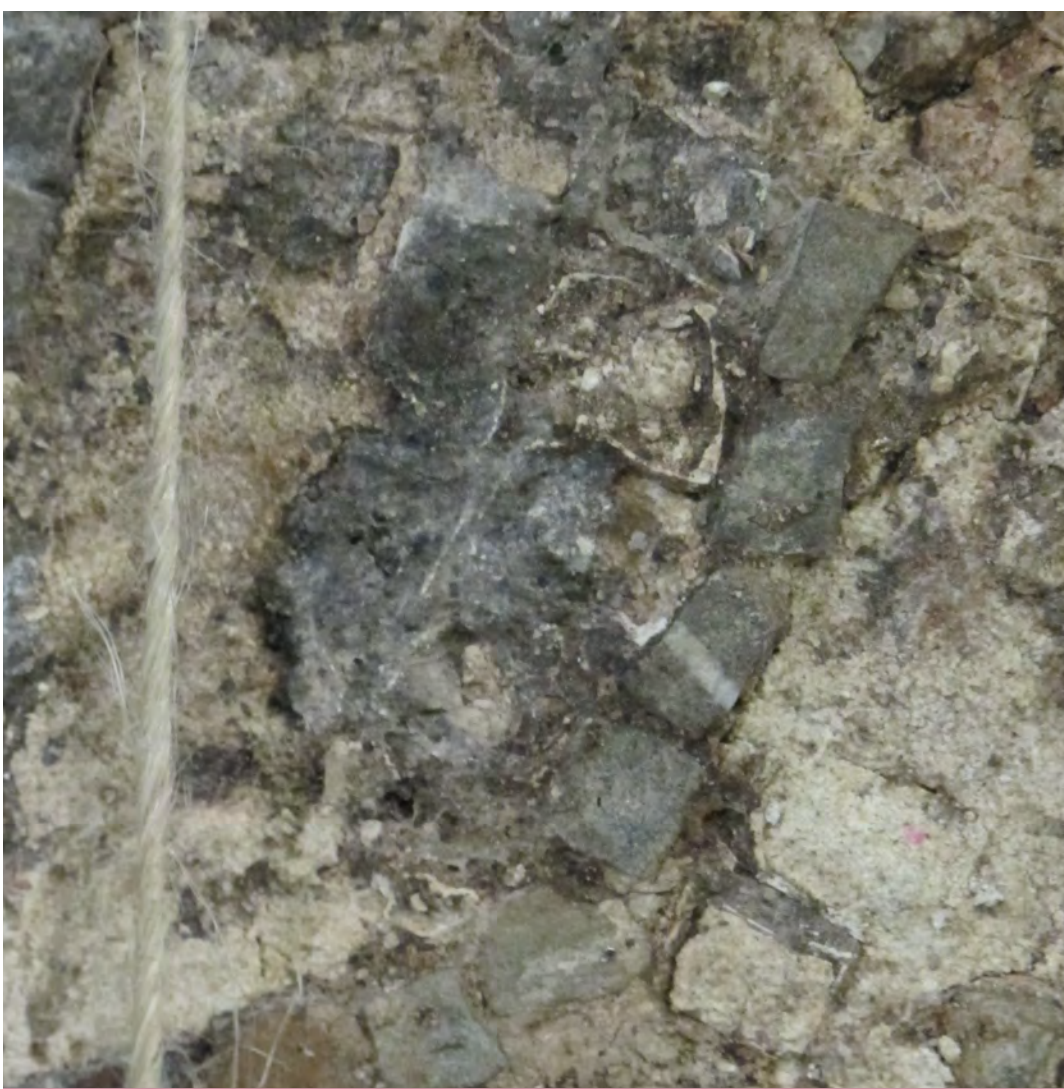
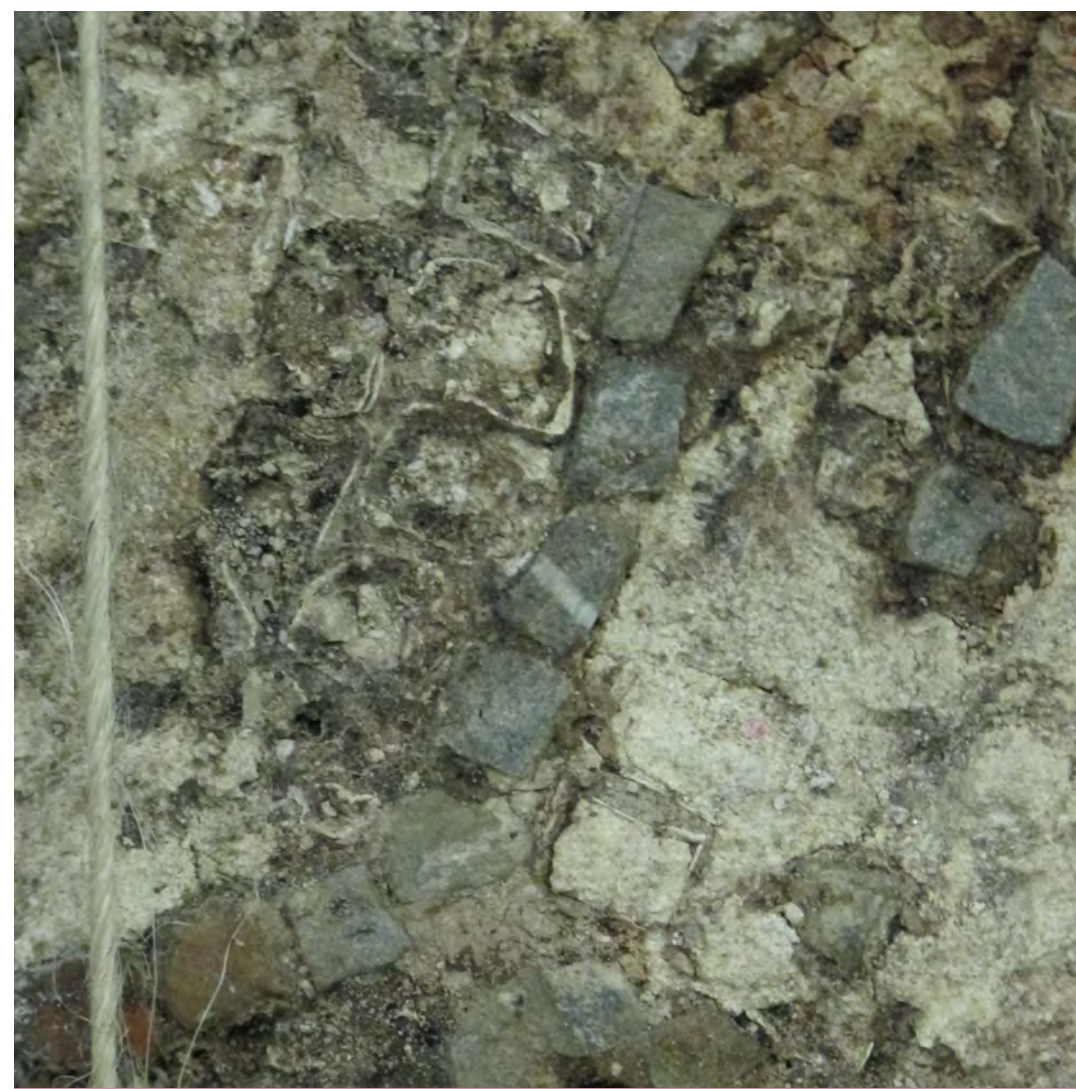


CONSERVATION
OBJECTIVES

- *stabilizing mosaic on new support*
- *keeping authenticity of preserved material*
- *preserving the remains and imprints of white tesserae that are almost completely disintegrated*



Before laser cleaning
treatment



After laser cleaning
treatment

NEW SUPPORT

New support consisted of an intermediate layer of light lime-casein mortar containing perlite and expanded clay, reinforced with fiber-glass. Once placed on new support facing was removed and fragments were glued to honeycomb aluminium panels



ARCHAEOLOGICAL CONTEXT

Archaeological site Celestial Chairs is located at Kopaonik mountain in Central Serbia, on the right slope below Pancic peak, at 1800 m above sea level. The mosaic was discovered in the Early Christian basilica with a double apse dating between 4th and 5th century. The basilica was destroyed in fire, the only part of the tessellatum preserved was mosaic border along northeastern wall of the nave mosaic, measuring 272x51cm. Mosaic was lifted upon the discovery, in 2000.

CONDITION

Mosaic was badly damaged; surface was covered with traces of soot, tessellatum was disturbed with many lacunae and loose tesserae. White tesserae were especially affected by fire and wet burial conditions – only thin shells were preserved filled with lime mixed with dirt.

TREATMENT OF THE TESSELATUM

Because of the fragility of white tesserae, cleaning had to be done with minimum contact, so laser and steamcleaning were combined.

The laser employed was a Q-switched Nd:YAG laser, Thunder art. The infrared wavelength (1064 nm) at 330 mJ was used for the general cleaning of tessellatum, while the same wavelength at 275 mJ was used for terracotta tesserae. Thicker soil deposits were first moistened and then cleaned at 380 mJ.

The tar deposits from burning as well as some layers of soil and glue mixture were successfully cleaned. Underneath some of these layers the degraded white tesserae were found. Additional rinsing of dirt was done with steamcleaner and fine brush.

Detachments were stabilized by injecting colloidal acrylic dispersion (Primal WS 24), while remains of white tesserae were consolidated with nanoline (CaLo-Sil E25).



RECONSTRUCTION

Reconstructed mosaic copy was made by restorer Duško Jovanović to enable understanding mosaic decoration that was highly disrupted by mosaic decay.

