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TECHNICIAN TRAINING FOR THE CONSERVATION OF MOSAICS

PART 2
THE CONSERVATION OF DETACHED MOSAICS

Introduction to detached mosaics



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Detaching mosaics is a conservation method, especially popular in the past, to present a mosaic in a museum, or to make a mosaic more stable and durable if it is presented on site, or to avoid total loss in the event that the site is going to be destroyed by modern constructions.



Opificio delle Pietre Dure Archivio Storico dell'Opificio delle Pietre Dure

Risks of damage due to the detachment of mosaics

Deformations and distention of the original mosaic size

Loss of tesserae along the cutting lines

Loss of the original layers of mortar

Loss of the mosaic's authenticity

Different methods to detach a mosaic

Detaching the tessellatum with a roller

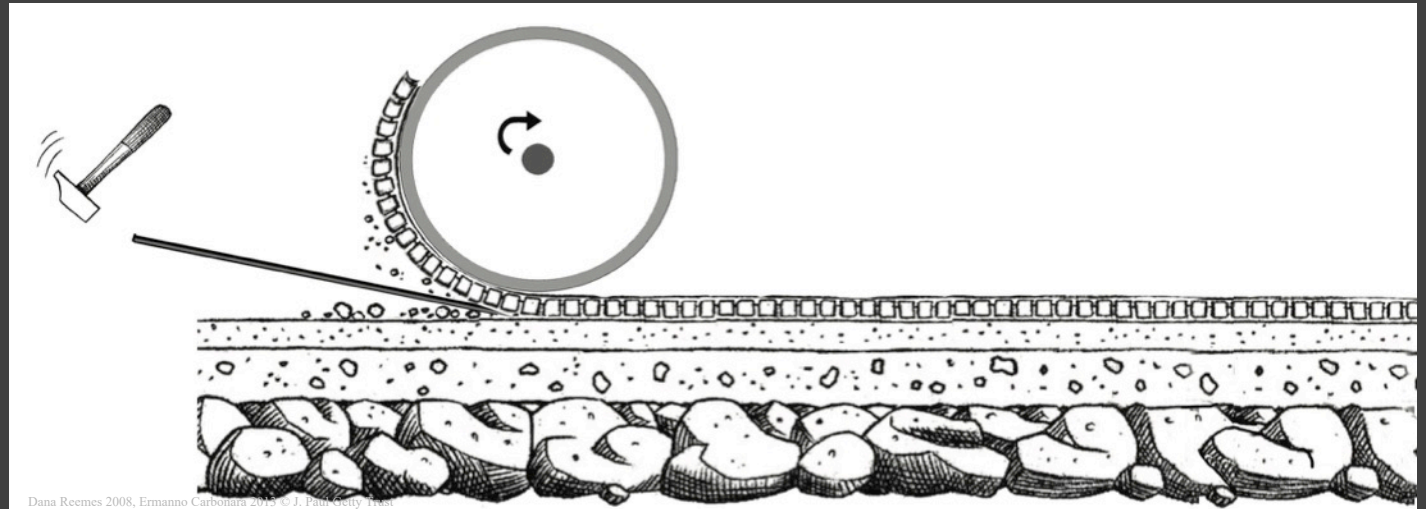
Detaching the tessellatum in sections

Detaching the tessellatum and preparatory layers in sections

Detaching the tessellatum with a roller



The mosaic is separated from its preparatory layers and laid on a roller.



ADVANTAGES

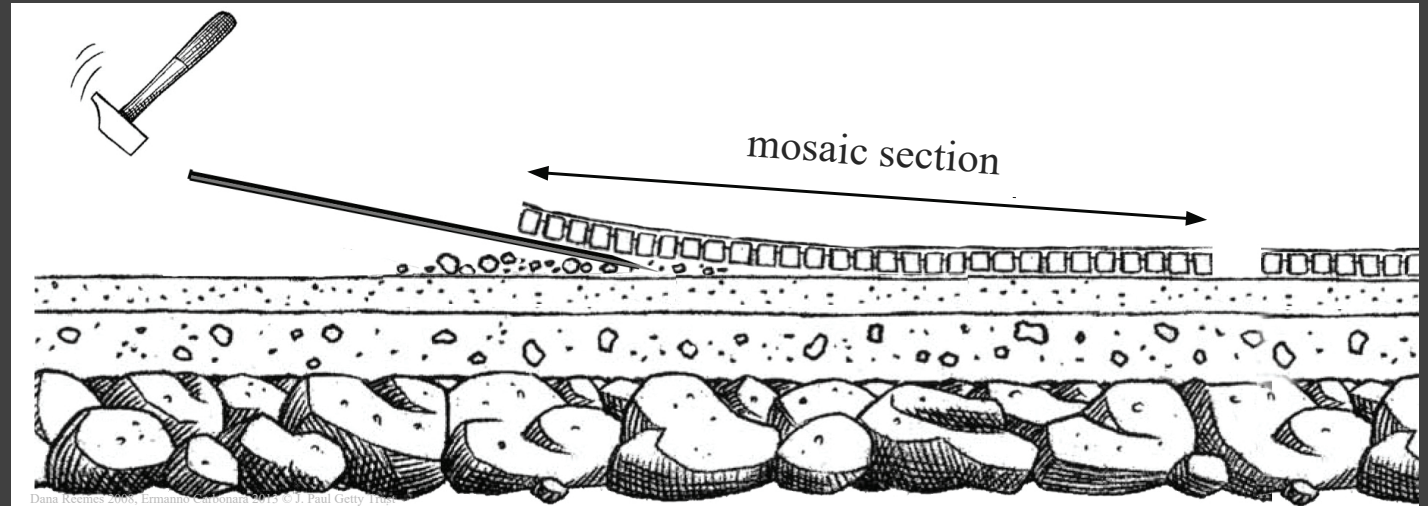
- Reduction of cuts to the mosaic or detachment in one single section

DISADVANTAGES

- Separation of the tesserae from the original layers of mortar
- Risk of distention of the original mosaic size
- Heaviness of the mosaic sections

Detaching the tessellatum in sections

The mosaic is detached in sections without its preparatory layers.



ADVANTAGES

- Reduces risk of distention of the original mosaic size
- Reduces weight of mosaic sections

DISADVANTAGES

- Separation of the tesserae from the original layers of mortar
- Separation of the mosaic into several sections
- Risk of losing tesserae along the cutting lines

Detaching the tessellatum and preparatory layers in sections

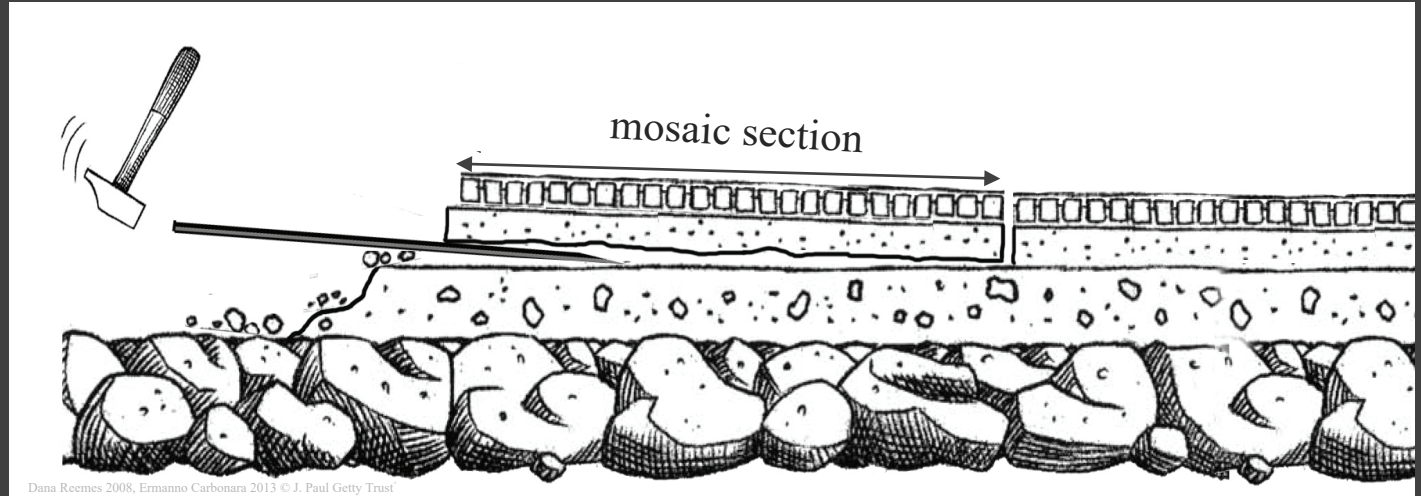


Ermanno Carbonara 2010 © J. Paul Getty Trust



Livia Alberti 2019 © J. Paul Getty Trust

The mosaic is detached with all or some of the preparatory layers in sections or in pieces.



Dana Reemes 2008, Ermanno Carbonara 2013 © J. Paul Getty Trust

ADVANTAGES

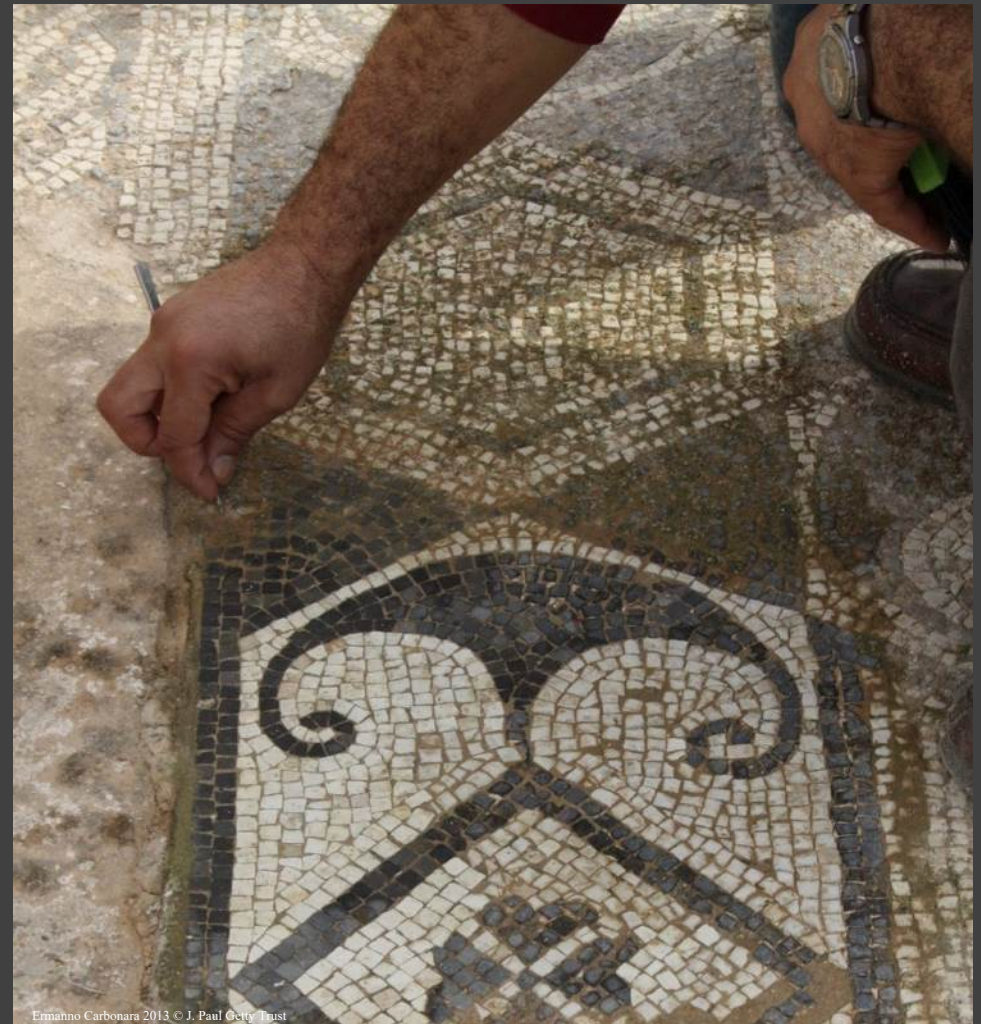
- Conservation of several of the mosaic's preparatory layers
- No risk of distention of the original mosaic size

DISADVANTAGES

- Separation of the mosaic into several sections
- Risk of losing of tesserae along the cutting lines
- Heaviness of the mosaic sections

Primary operations of detaching

Cleaning and stabilization of the mosaic to be detached



Primary operations of detaching

Facing of the surface with one or more layers of fabric and adhesive



Livia Alberti 2019 © J. Paul Getty Trust



Livia Alberti 2019 © J. Paul Getty Trust

Primary operations of detaching

Detachment of the mosaic



Livia Alberti 2019 © J. Paul Getty Trust



Livia Alberti 2019 © J. Paul Getty Trust

The different supports for a mosaic after detachment

Storage structures without a new support

Reinforced plaster of Paris panel, mounted on a frame

Mortar panel of cement reinforced with iron (reinforced concrete)

Various layers of modern mortar applied to the ground, wall or other fixed structures

Composite panels, often stratified, of synthetic materials

Storage structures without a new support



- a Tesserae inverted and adhered to the fabric
- b Fabric/paper
- c Storage structure

Reinforced plaster of Paris panel, mounted on a frame



Livia Alberici 2006 © J. Paul Getty Trust

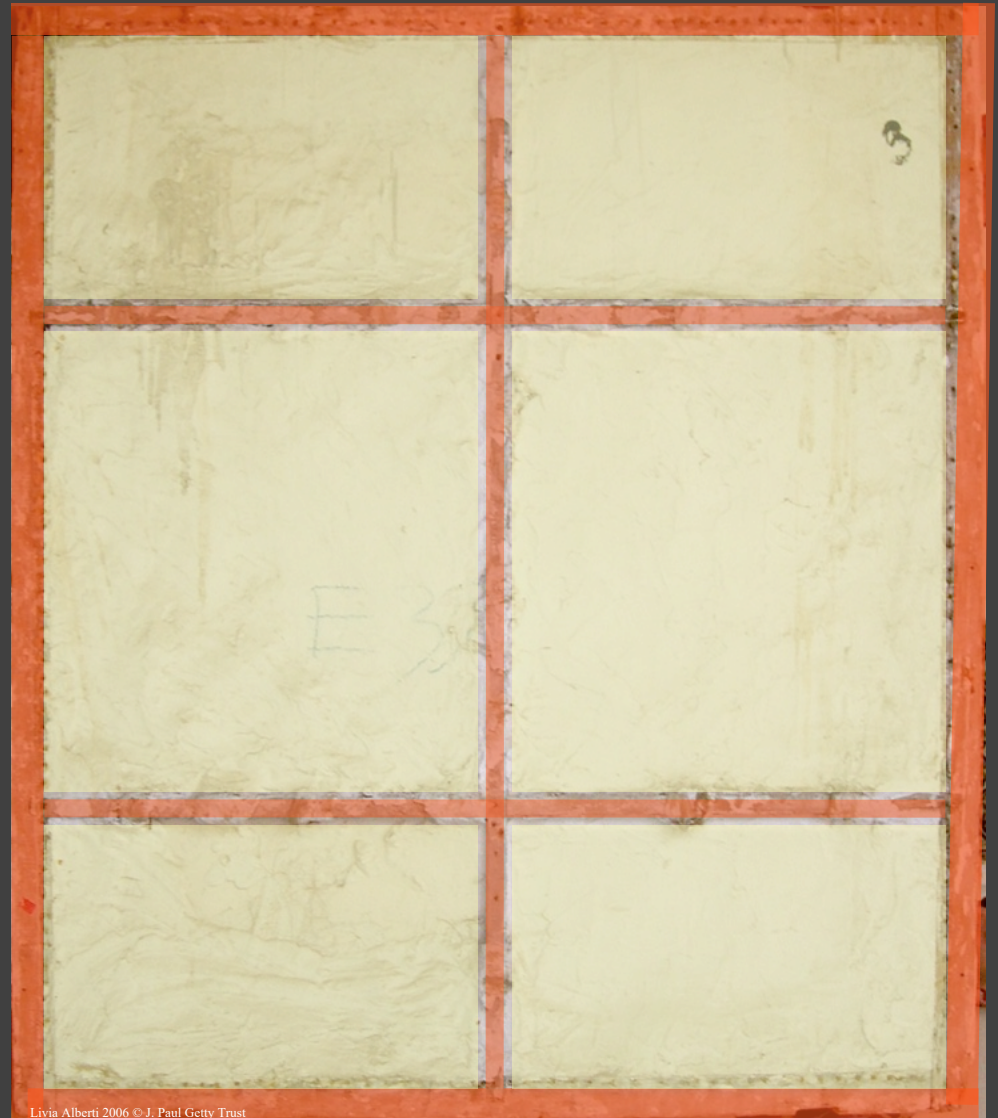


Livia Alberici 2006 © J. Paul Getty Trust



Reinforced plaster of Paris panel, mounted on a frame



Livia Alberti 2006 © J. Paul Getty Trust



Livia Alberti 2006 © J. Paul Getty Trust

-  Reinforced plaster of Paris
-  Frame

Reinforced plaster of Paris panel, mounted on a frame

Reinforcements used for plaster of Paris panels



Woven hemp



Unwoven hemp



Steel wire grid

Reinforced plaster of Paris panel, mounted on a frame

Frames used for plaster of Paris panels



Wooden frame



Wooden frame with reinforcement bars and metal straps



Livia Alberti 2006 © J. Paul Getty Trust

Mortar panel of cement reinforced with iron (reinforced concrete)



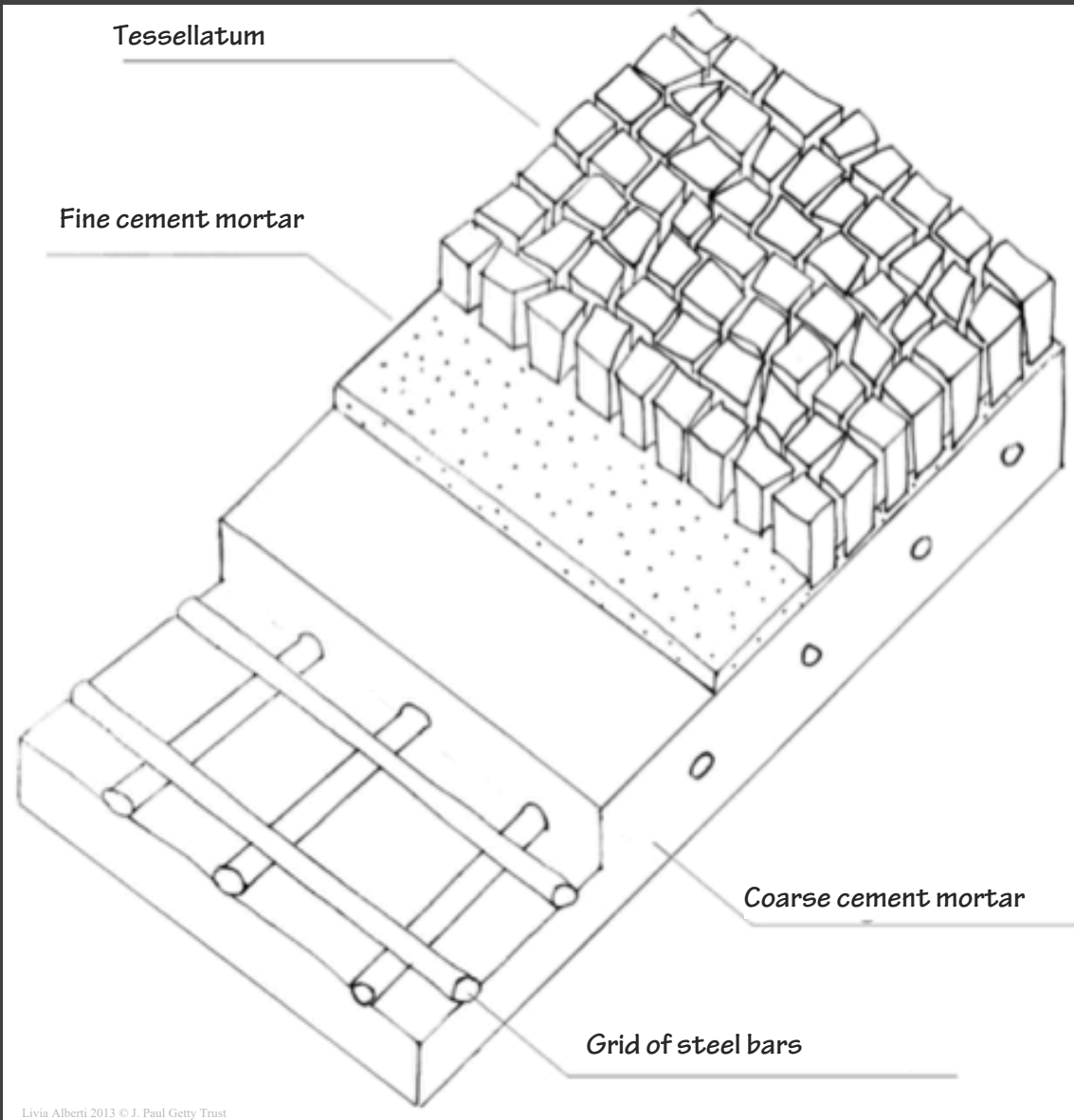
Ermanno Carbonara 2011 © J. Paul Getty Trust



Ermanno Carbonara 2011 © J. Paul Getty Trust

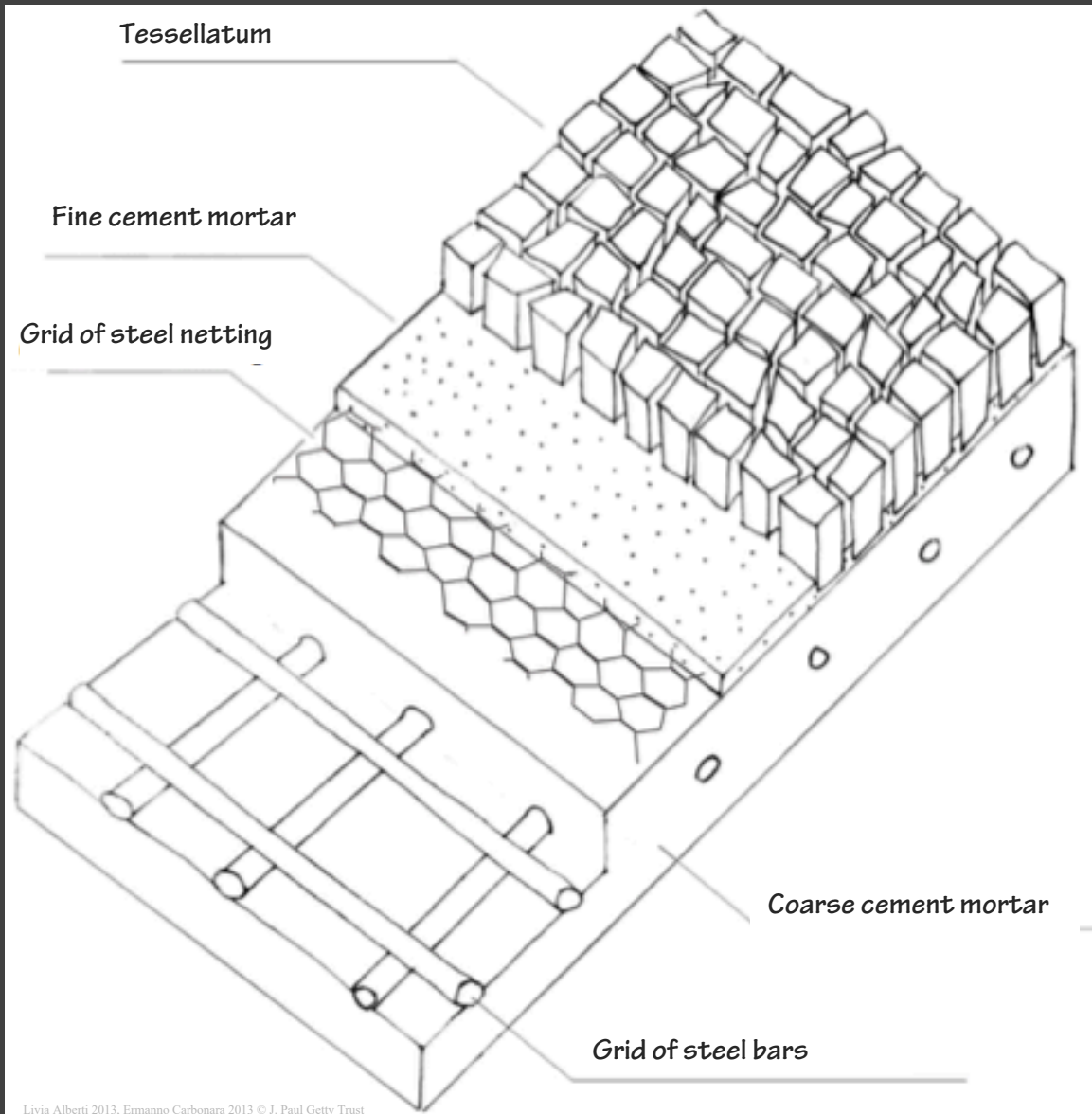
Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel



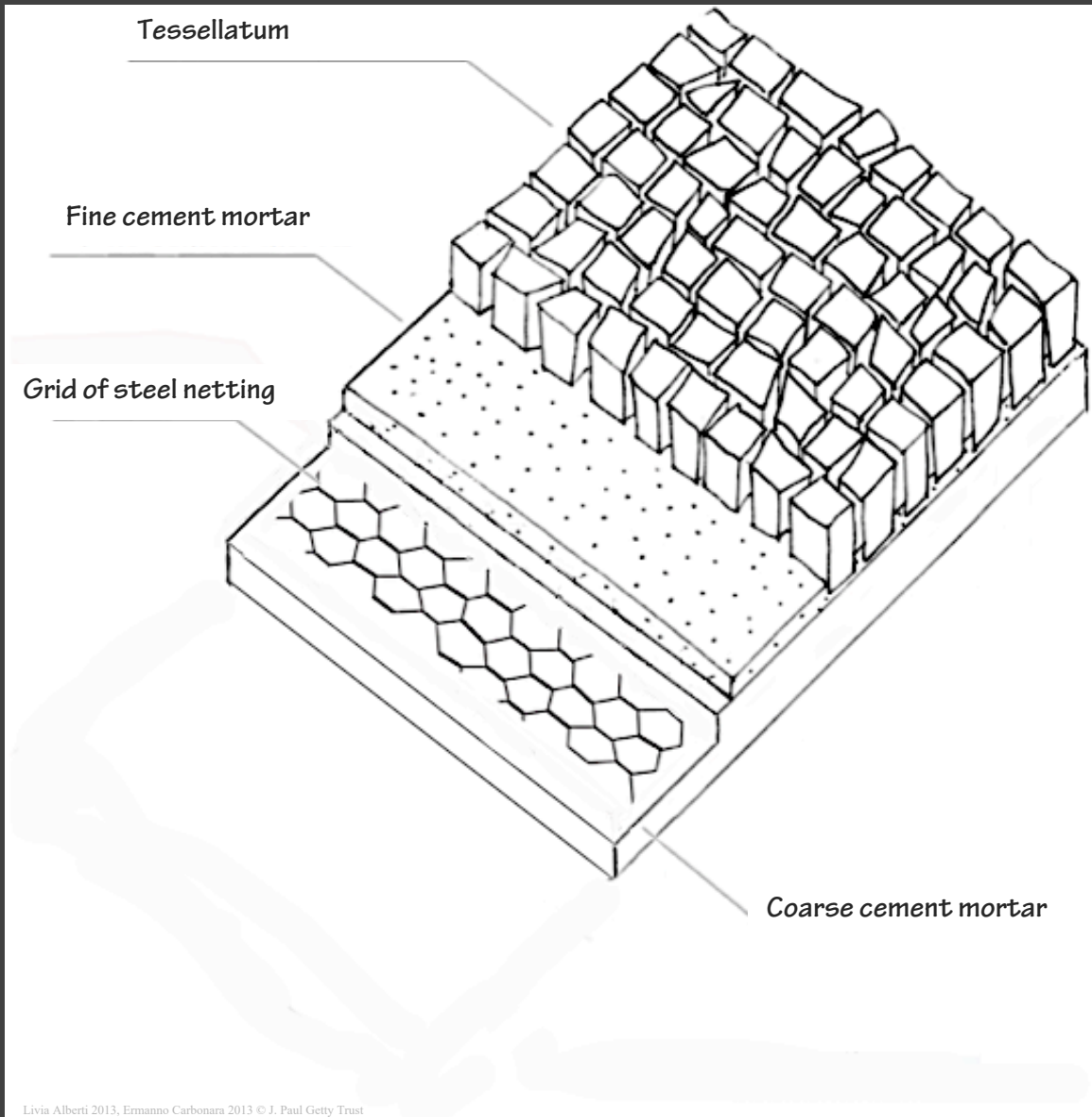
Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel



Mortar panel of cement reinforced with iron (reinforced concrete)

Examples of the structure of a reinforced concrete panel



tesserae

steel bar

concrete mortar

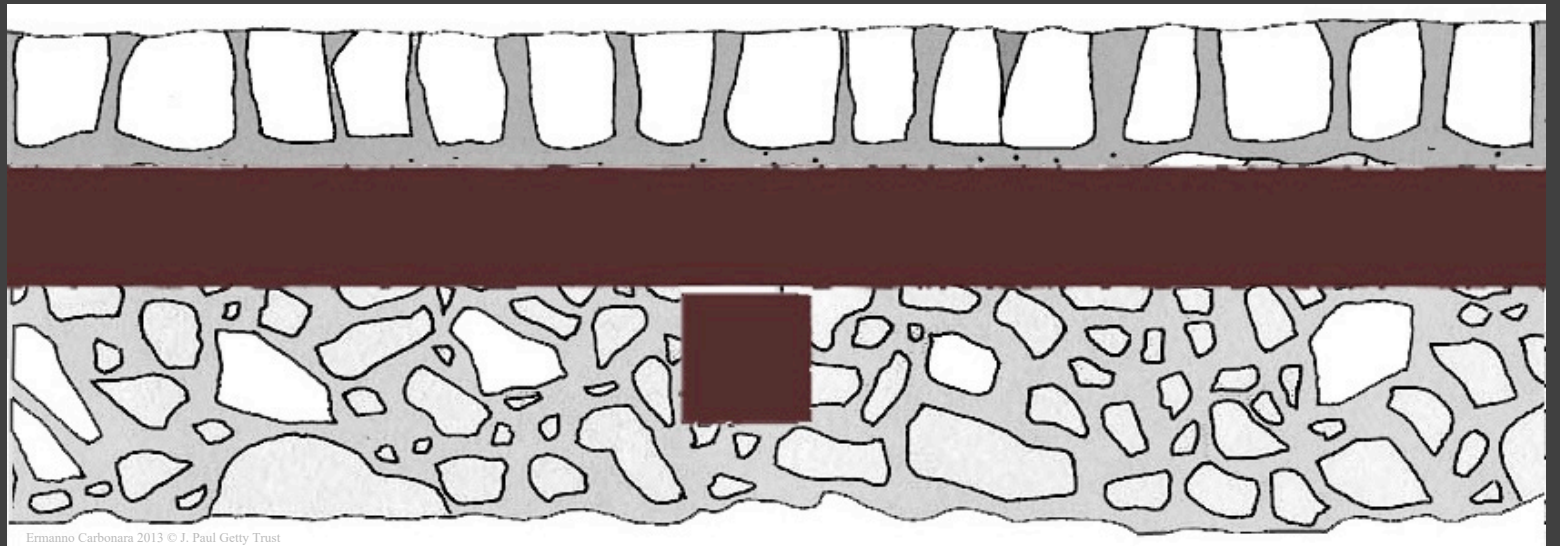


Ermanno Carbonara © 2006 Ermanno Carbonara

tesserae

steel bar

concrete mortar



Ermanno Carbonara 2013 © J. Paul Getty Trust



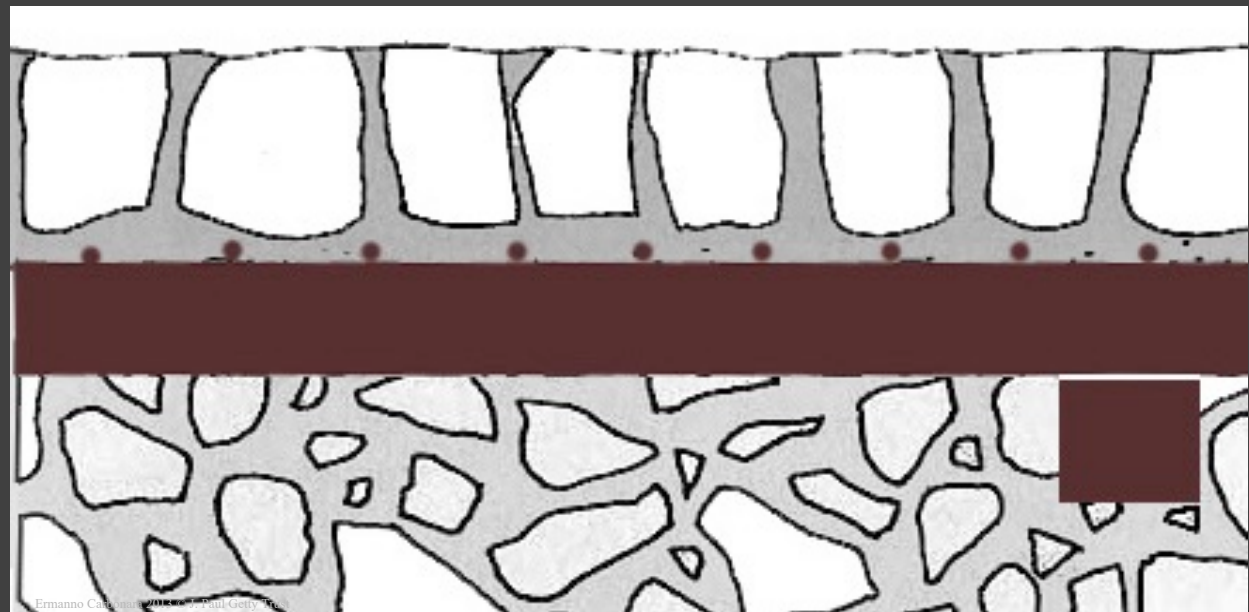
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tesserae

steel wire grid

steel bar

concrete mortar



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tesserae

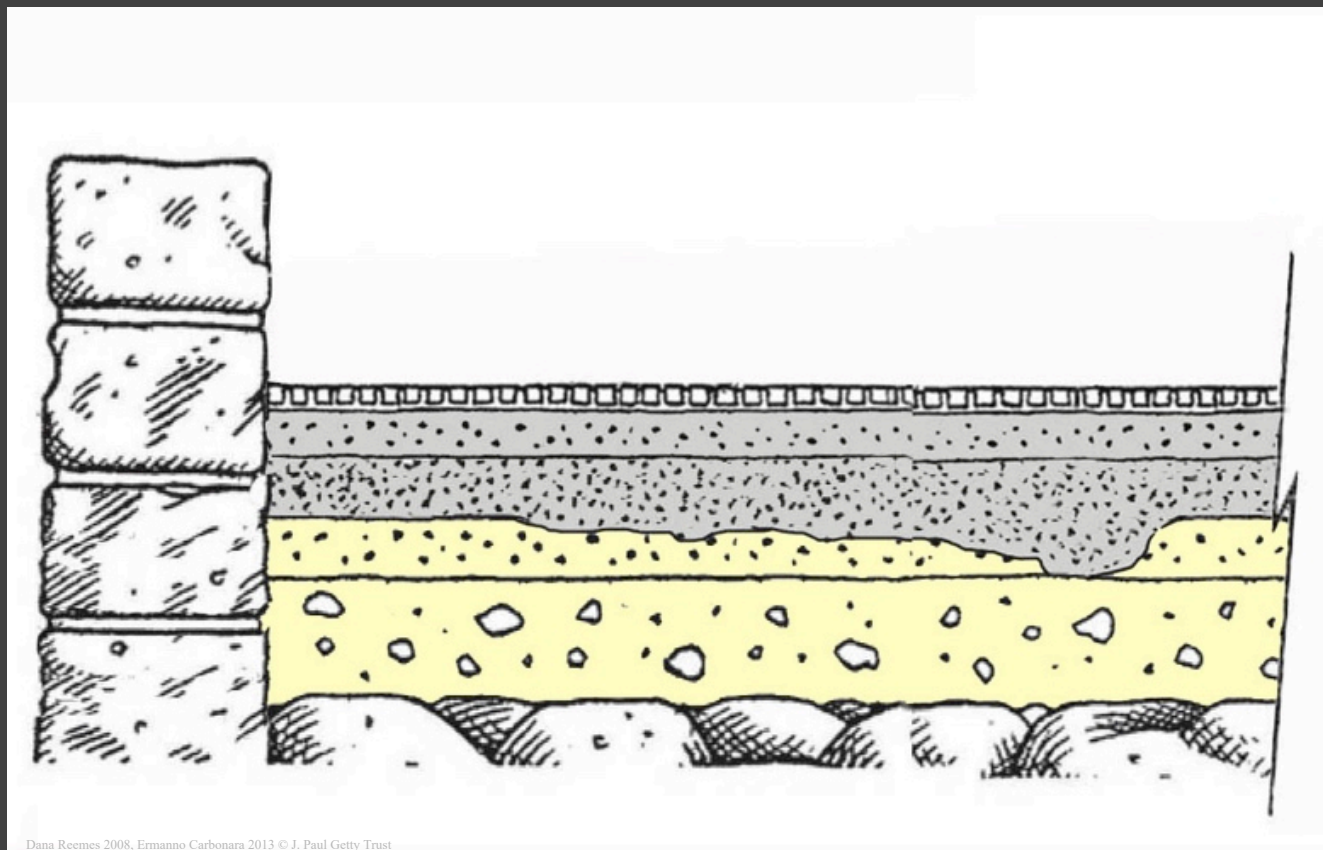
steel wire grid

concrete mortar



Emanno Carbonara 2013 © J. Paul Getty Trust

Various layers of modern mortar applied to the ground

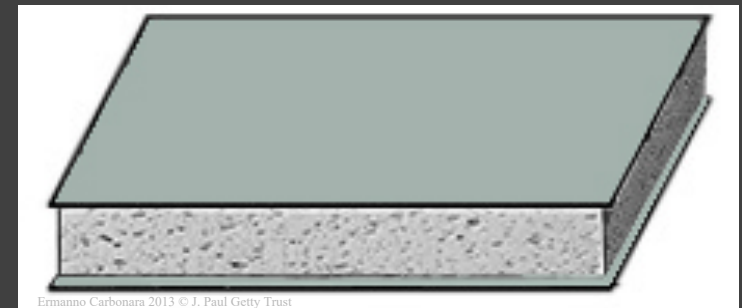
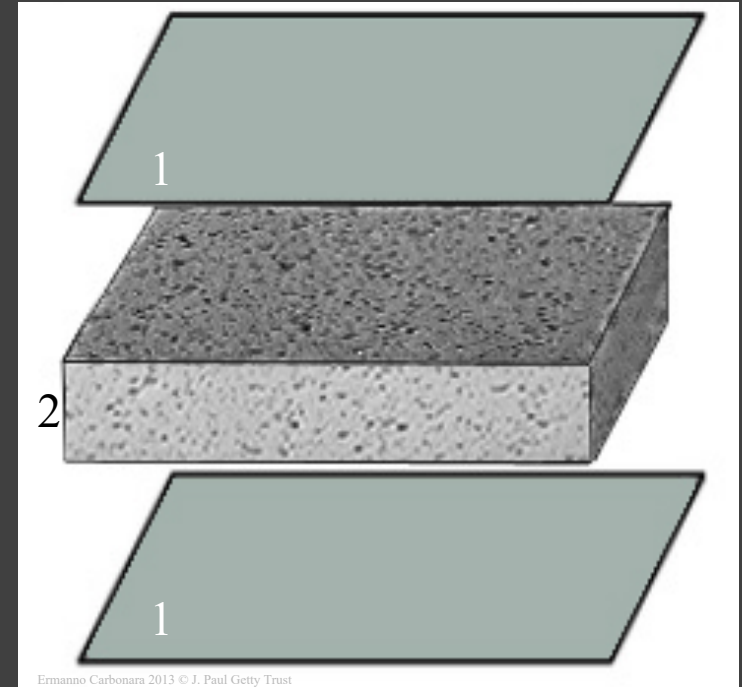


Dana Recmes 2008, Ermanno Carbonara 2013 © J. Paul Getty Trust

Modern mortar layers

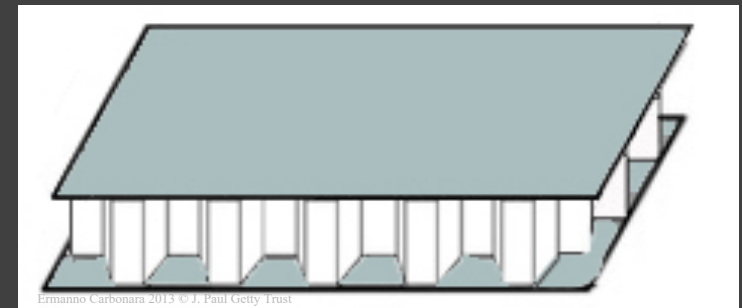
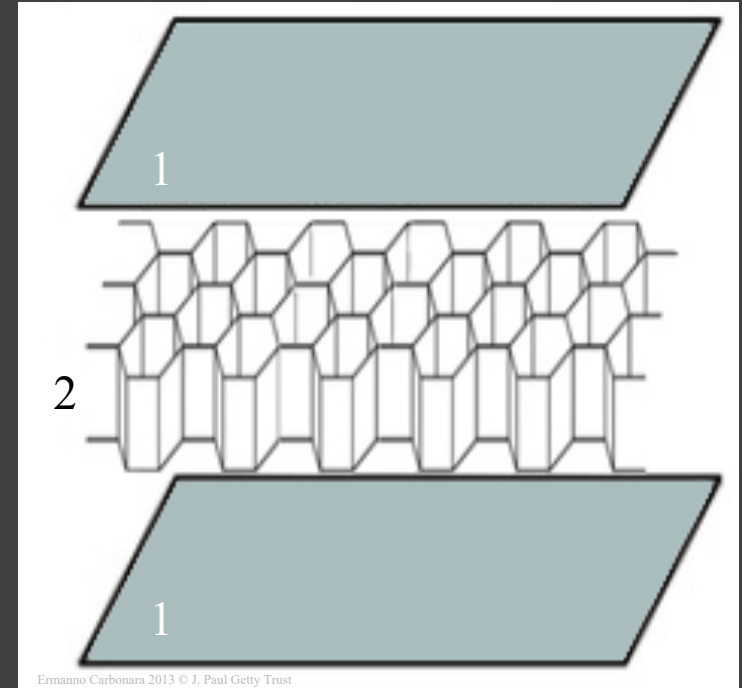
Ancient mortar layers

Composite panels, often stratified, of synthetic materials



Panel made up of polyurethane foam between two layers of resin reinforced with fiberglass

Composite panels, often stratified, of synthetic materials



Panel made up of aluminum honeycomb between two layers of resin reinforced with fiberglass

After detachment, mosaics are:

stored in a repository

reinstalled on site in
their original location

exhibited in a museum



Patrick Blanc © 2010 Musée Départemental Arles Antique, Atelier de Conservation-Restauration

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Ermanno Carbonara 2010 © J. Paul Getty Trust

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MOSAIKON is a partnership of four institutions: the Getty Conservation Institute, the Getty Foundation, ICCROM, and ICCM. The aims of the project are to strengthen the network of professionals concerned with the conservation, restoration, maintenance, and management of mosaic heritage in the southern and eastern Mediterranean region; provide training to a variety of individuals involved in mosaics conservation and, more generally, with the management of archaeological sites and museums with mosaics; work with national and international bodies to provide a more favorable legislative, regulatory, and economic environment for the conservation of mosaics in the Mediterranean; and promote the dissemination and exchange of information.

