The Getty Conservation Institute

MOSAIKON: Alternative Backing Methods and Materials Research

SURVEY RESULTS

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9 November 2011

Survey Information

- This survey was prepared to support the ongoing research of a component of MOSAIKON Initiative investigating sustainable backing methods that are reversible, durable and which employ locally available and inexpensive materials to conserve detached mosaics in museums and storage.
- The survey aims to gather information on backing methods applied to date and local availability of materials in the Mediterranean countries of the MOSAIKON Initiative.
- It was distributed at the ICCM conference on 24-27 October 2011 in Meknes, Morocco.

Acknowledgements

We would like to thank Jeanne Marie Teutonico, Giacomo Chiari, Leslie Friedman and MOSAIKON Project partners, in particular Alison Sawdy Heritage of ICCROM for revising the questionnaire and helping to finalize the content and format.

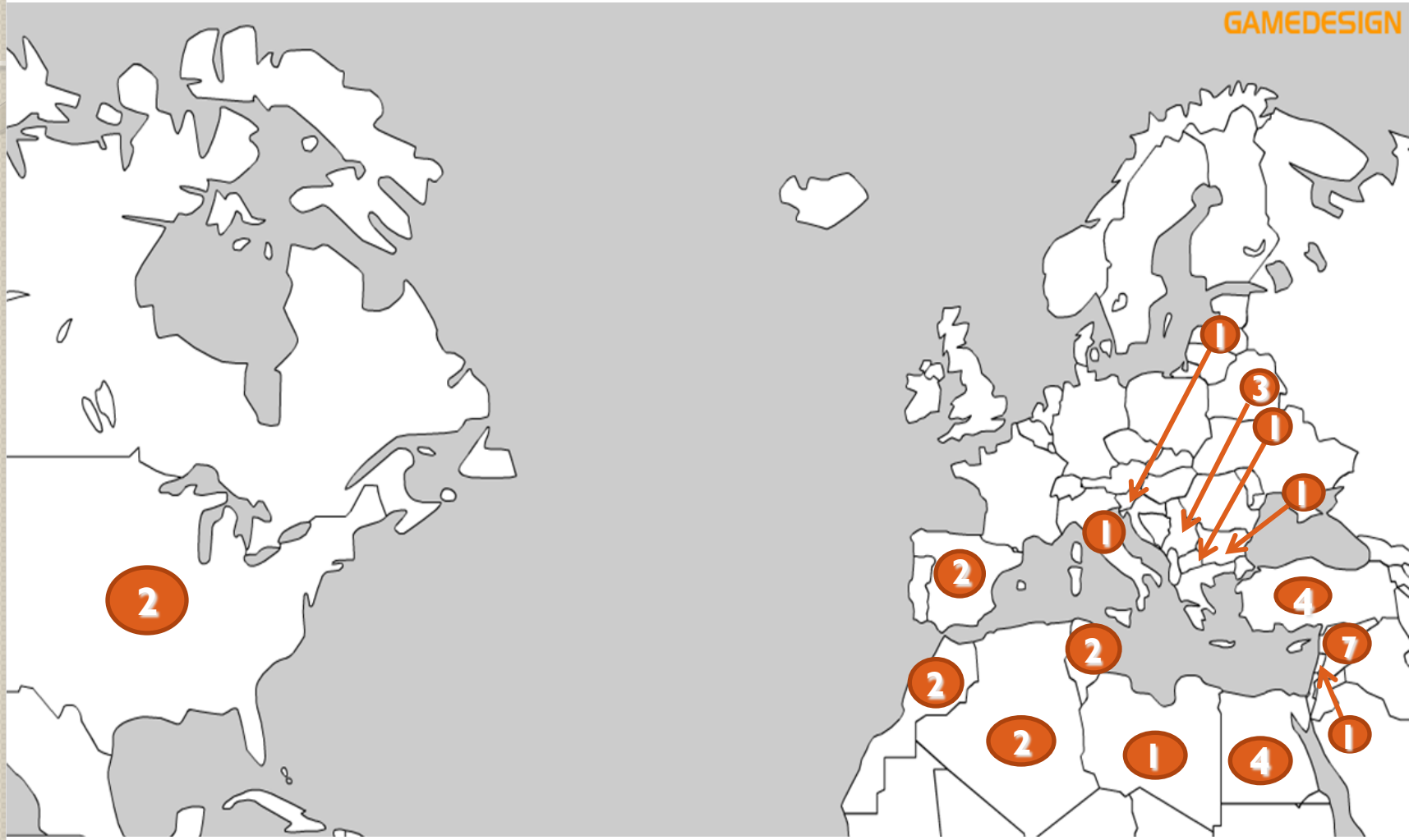
Special thanks goes to Mary Awad and GCI intern Joyce Azzam for translating the questionnaire in Arabic, and to intern Juana Segura Escobar and Elsa Bourguignon for translating the French version. The completed questionnaires in Arabic were translated to English by Dina Abou Salem.

Participants

- 35 completed survey forms were collected.
- From the countries participating in the MOSAIKON Initiative Jordan, Cypress and Greece were not represented.
- One form without location of work was excluded.
- An address book was prepared.

Algeria	Egypt	Lebanon	Libya	Morocco	Syria	Tunisia	Turkey	Europe	USA
Bensalah Abdelkaoler	Hanaa Mohamed Tewfick	Badr Jabbour-Gedeon	A. El Turki	Pr. Dekayir Abdelilah	Maher Ibaee	Moheddine Chaouali	Sehrigul Yesr-Erdek	Elena Kantareva-Oecheva (BULGARIA)	Carol Snow
Hamza Mohammed Cherif	Amira Alkhousht	Ghada Salem		Nagyda Cherradi	Firas Alhajali	Livia Alberti	Ali Akin Akyol	Alessandro Lugari (ITALY)	Jessica Chloros
	Shaimaa Fouad El Shishtamy				Jihan Souliman		Hande Kokten	Nicola Upevche (MACEDONIA)	
	Magdy Badawy (ph.D)				Mouhamad Kaed		Y. Selcuk Sener	Maja Frankovic (SERBIA)	
					Gihras Klesly			Marijana Protic (SERBIA)	
					Ali Al-Ahad			Nemanja Smiciklas (SERBIA)	
					Burhan Az-Zira'			Bernarda Zupanek (SLOVENIA)	
								Katarina Toman Kracina (SLOVENIA)	
								Pasies Trinidad (SPAIN)	
								Silvia Llobet Font (SPAIN)	

Participant Distribution

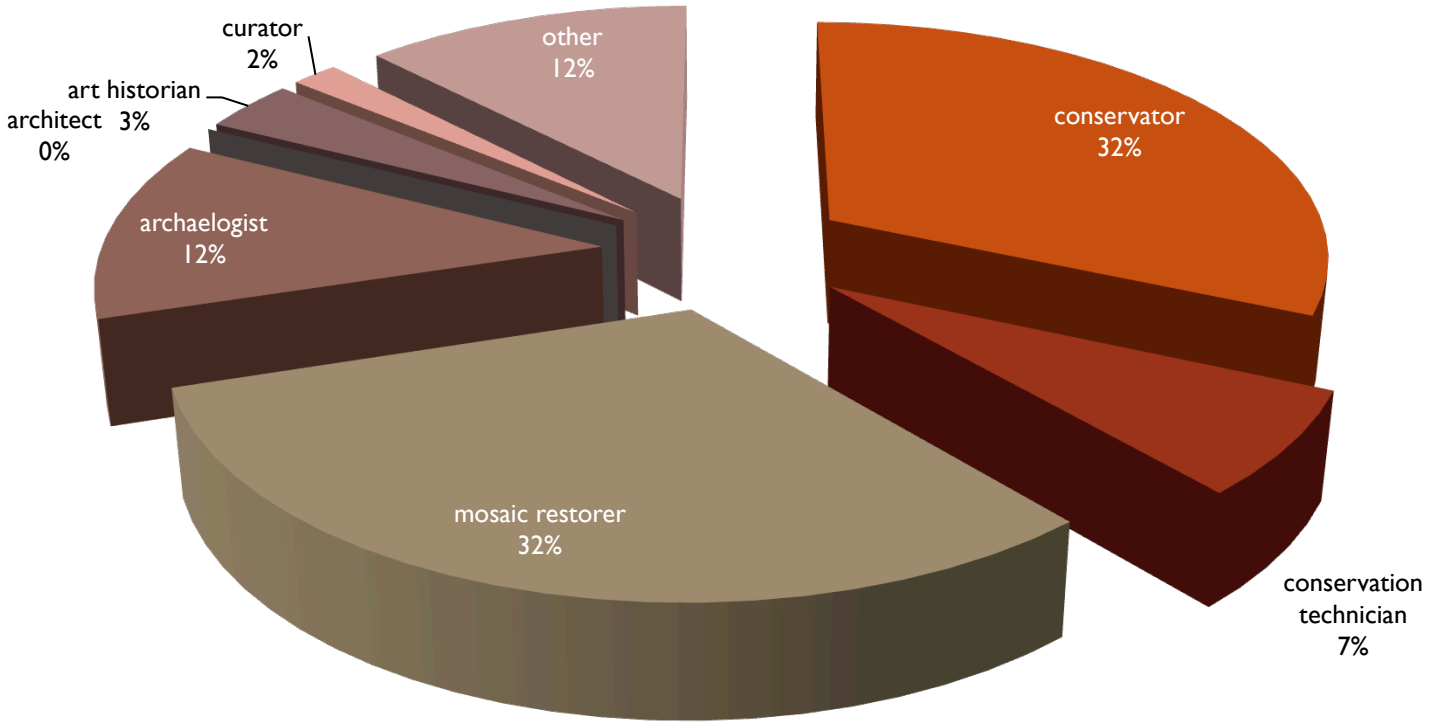


Results

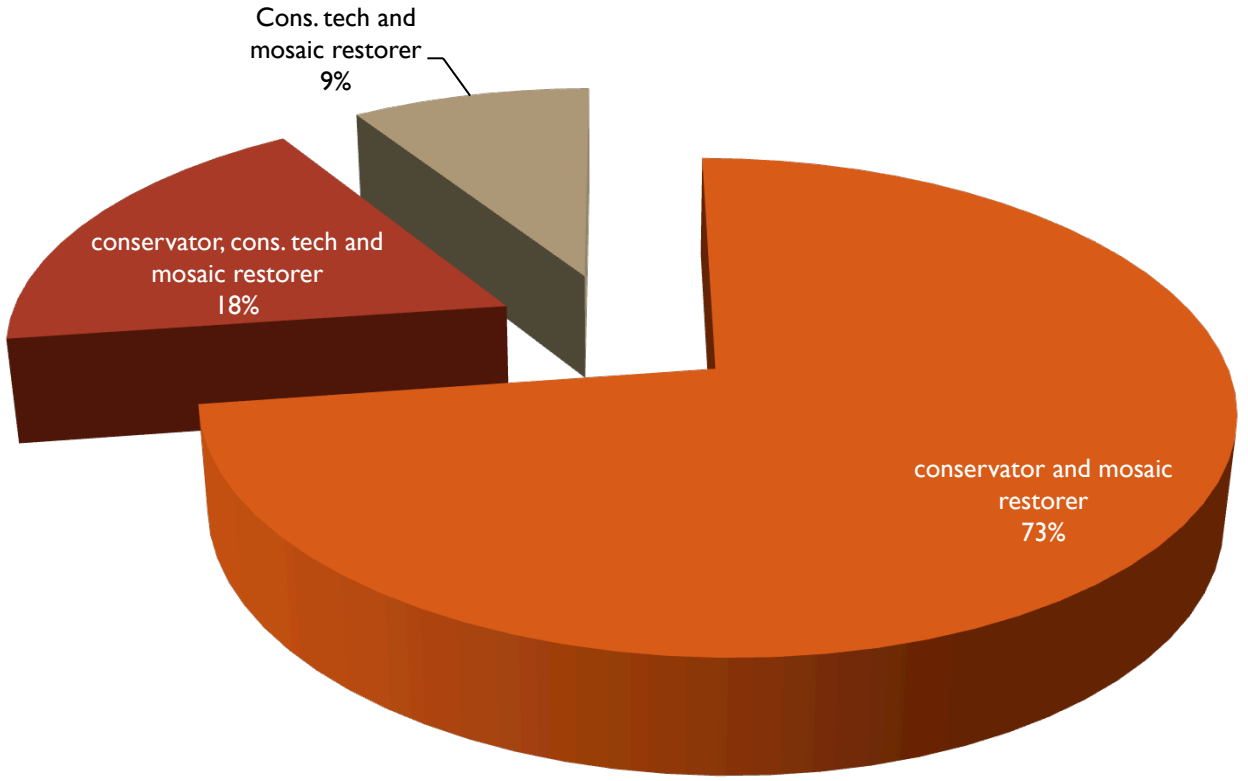
- Results presented here include countries which are currently participating or possibly may participate in the MOSAIKON Initiative.
- Results are summarized under three titles:
  - Profession distribution (pages 7-8)
  - Backing methods (pages 9-19)
  - Material availability (pages 20-30)
- Only domestically produced materials are included in this presentation.

Focus Region

Profession Distribution



Conservation Profile Distribution



- 15 participants indicated more than one profession
- 11 participants selected conservator and/or conservation technician and/or mosaic restorer

Backing Methods: In the past

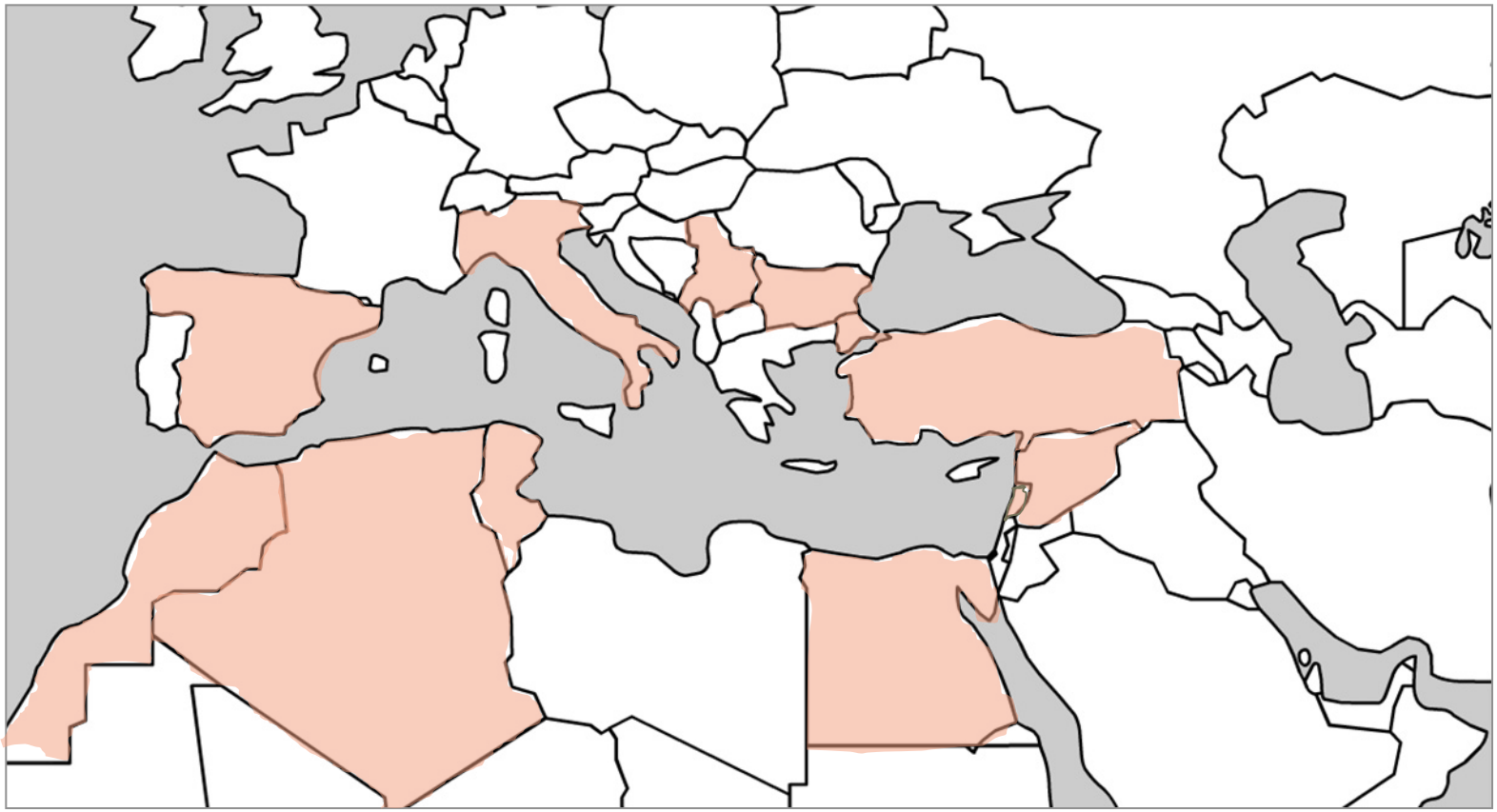
Plaster of Paris with wooden armature

Backing Methods: Last 10 years

Plaster of Paris with wooden armature

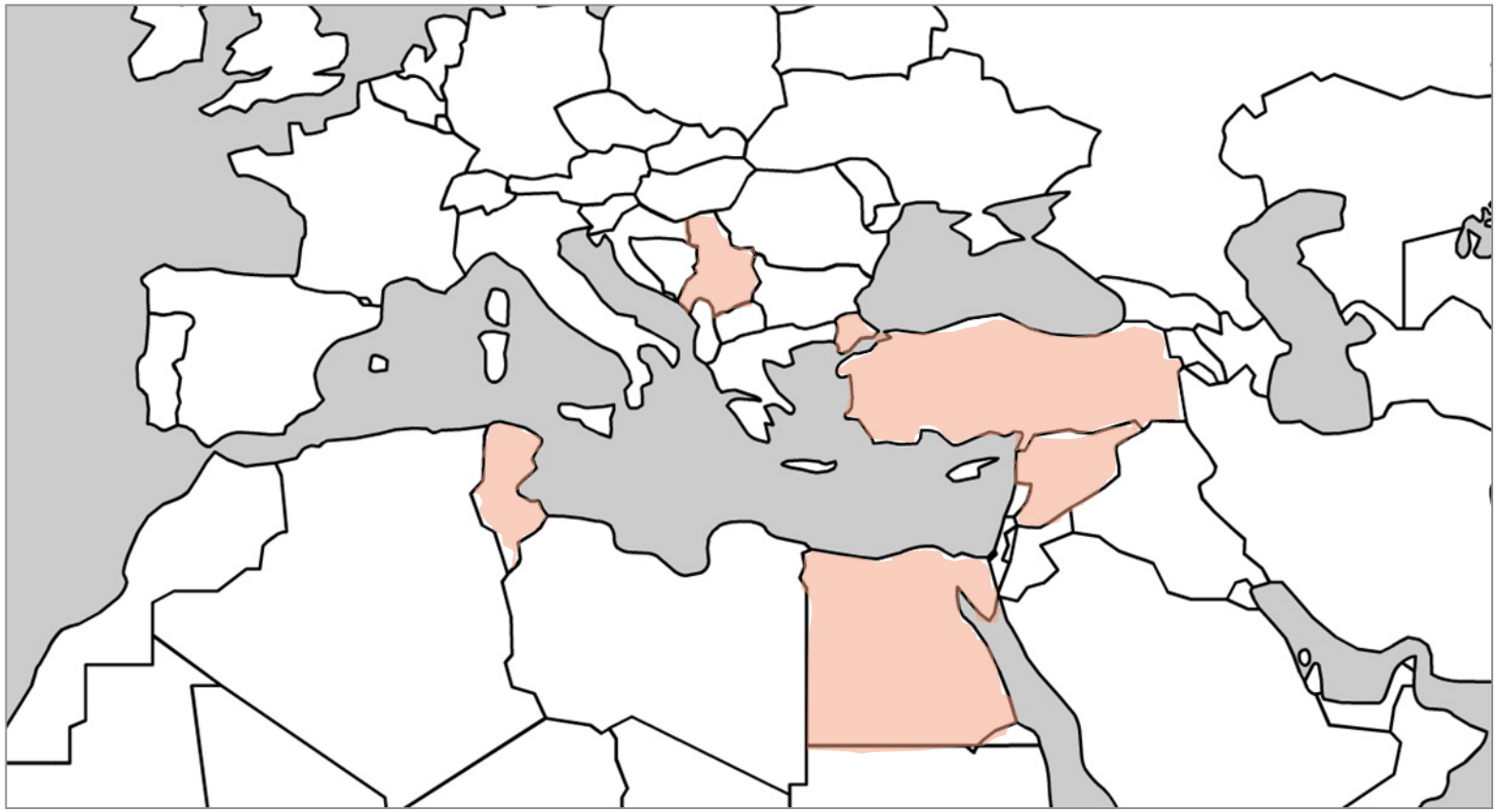
Backing Methods: In the past

Steel reinforced concrete



Backing Methods: Last 10 years

Steel reinforced concrete



Backing Methods: In the past

Aluminum honeycomb panels

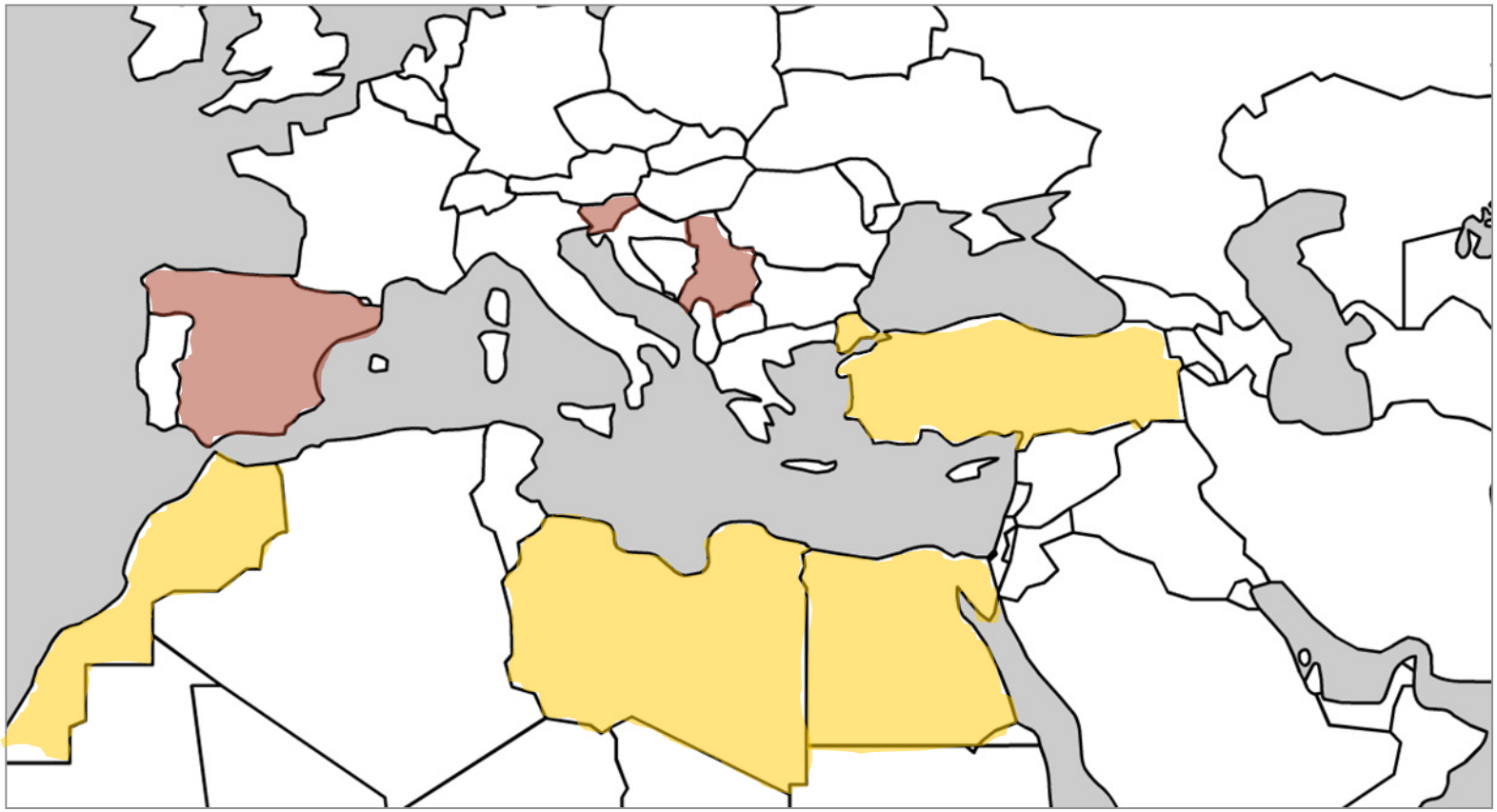
Backing Methods: Last 10 years

Aluminum honeycomb panels

Backing Methods: In the past

Lime-based mortar with reinforcement

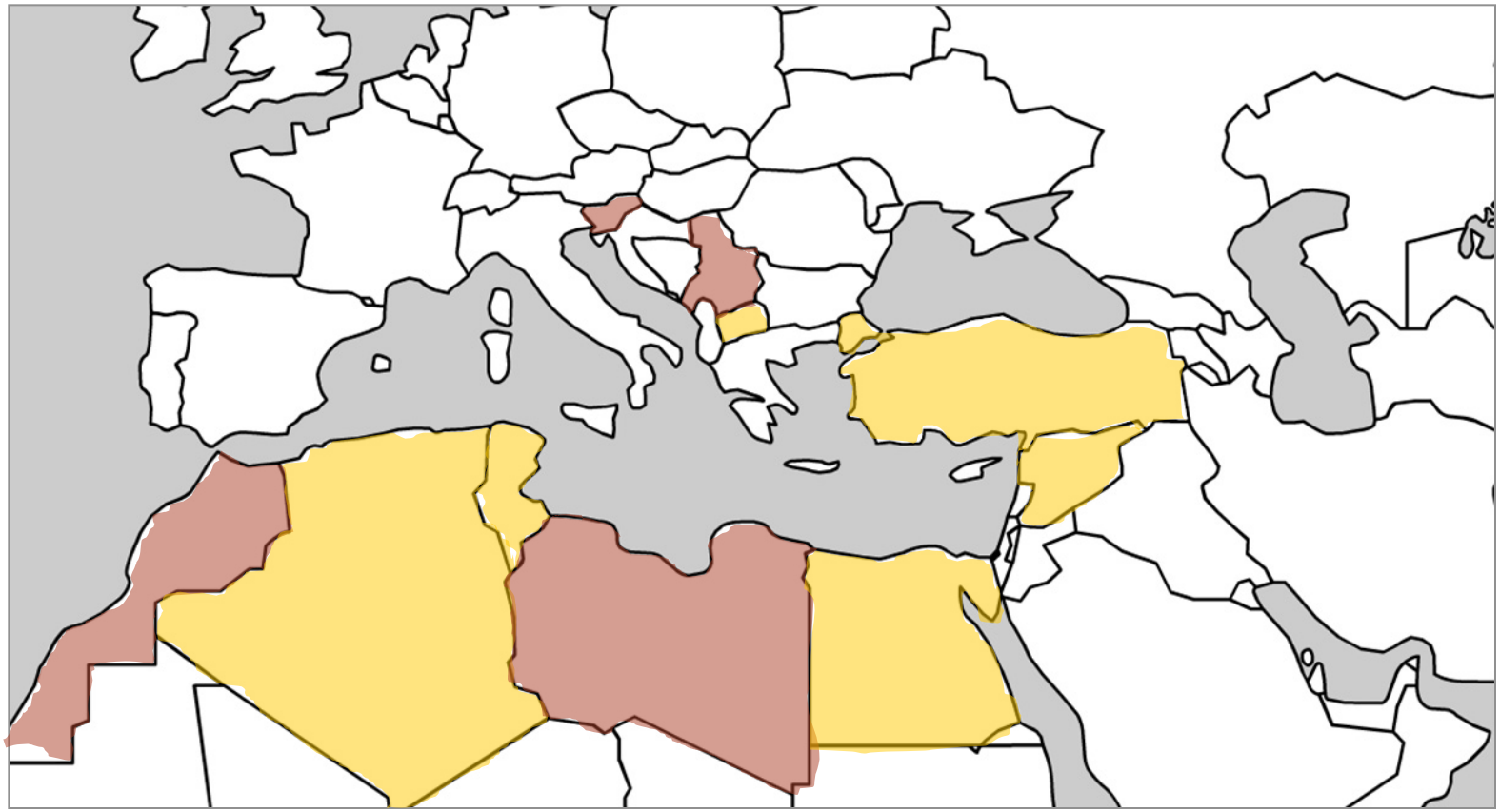
Lime-based mortar (cement added) with reinforcement



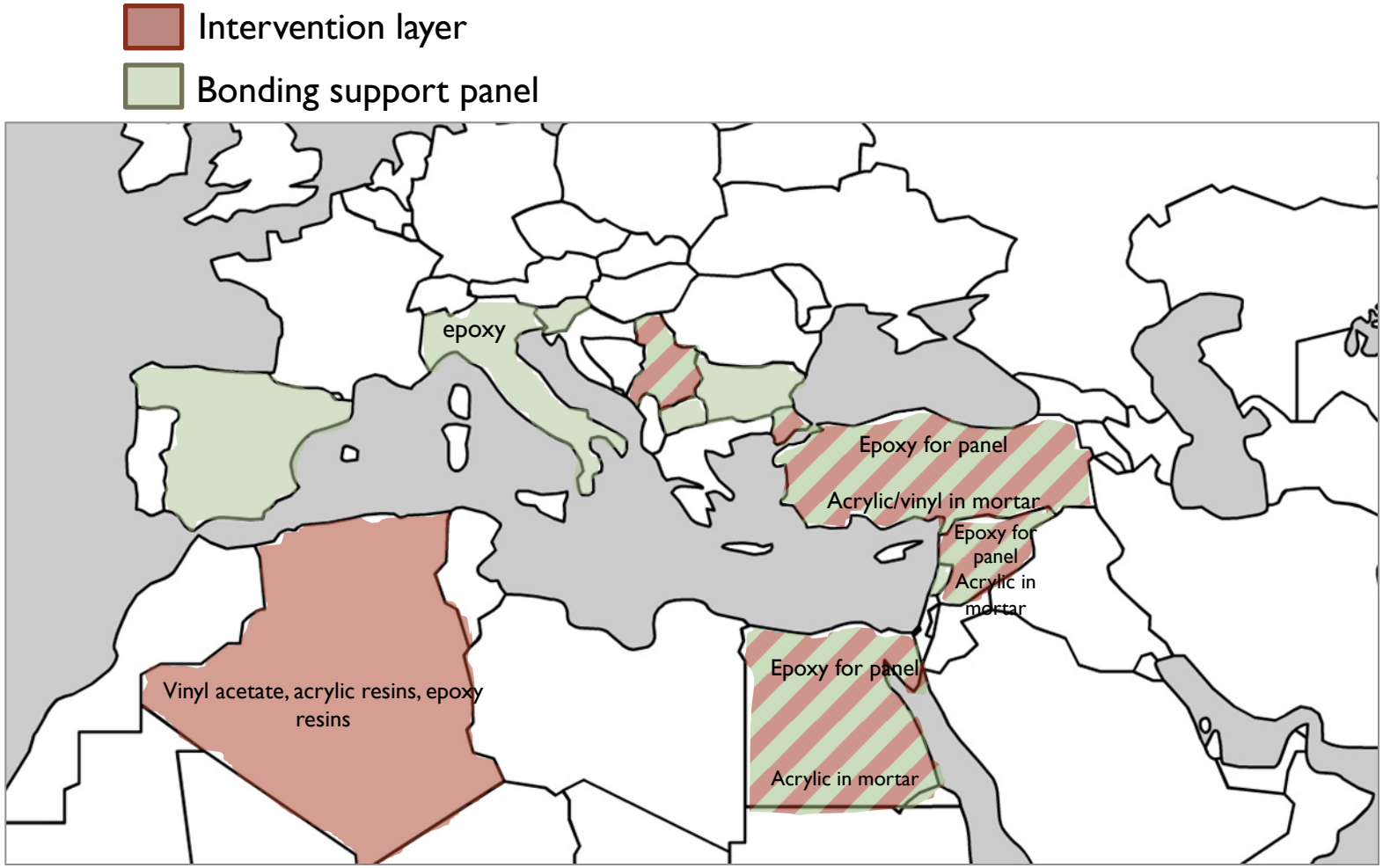
Backing Methods: Last 10 years

Lime-based mortar with reinforcement

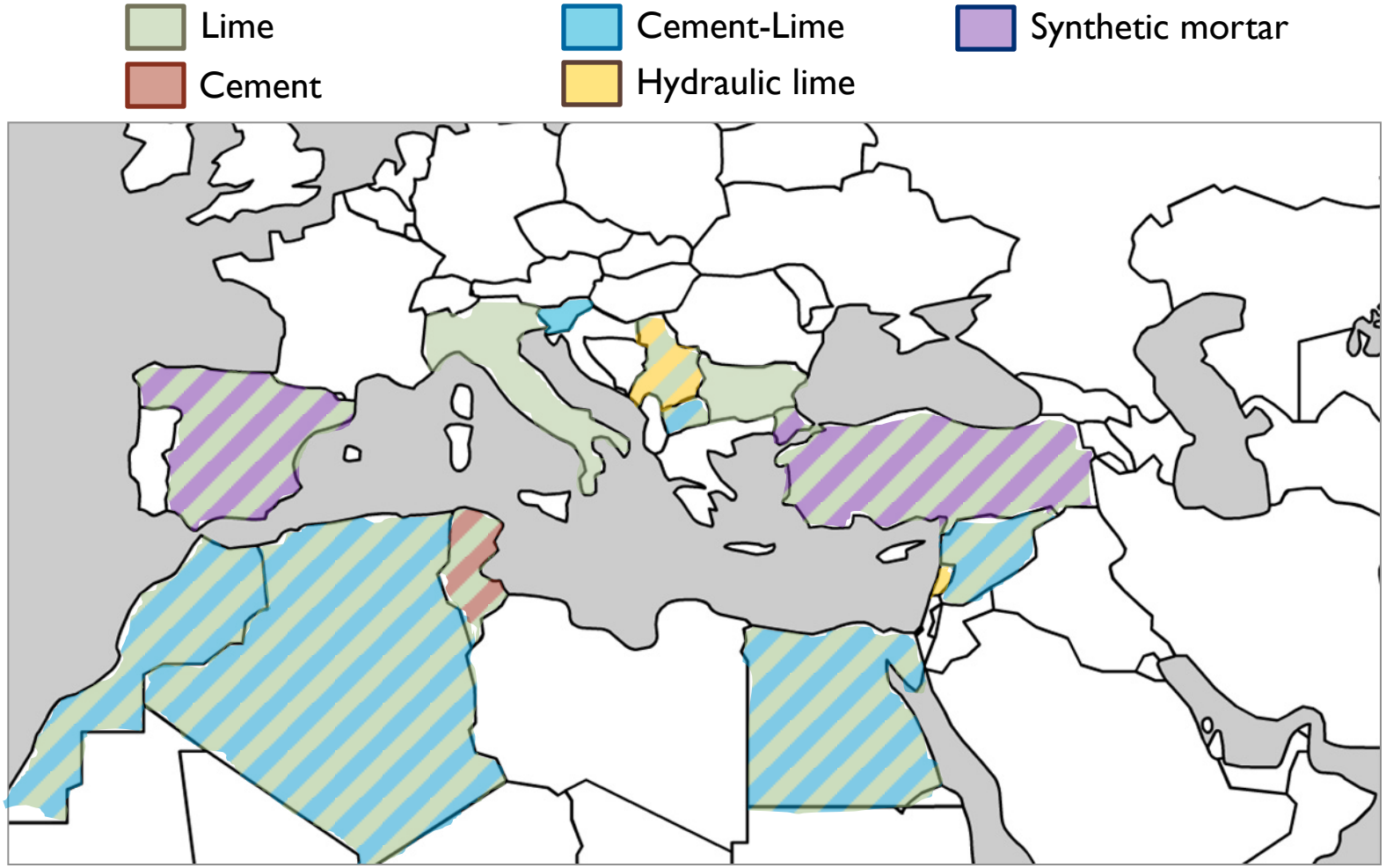
Lime-based mortar (cement added) with reinforcement



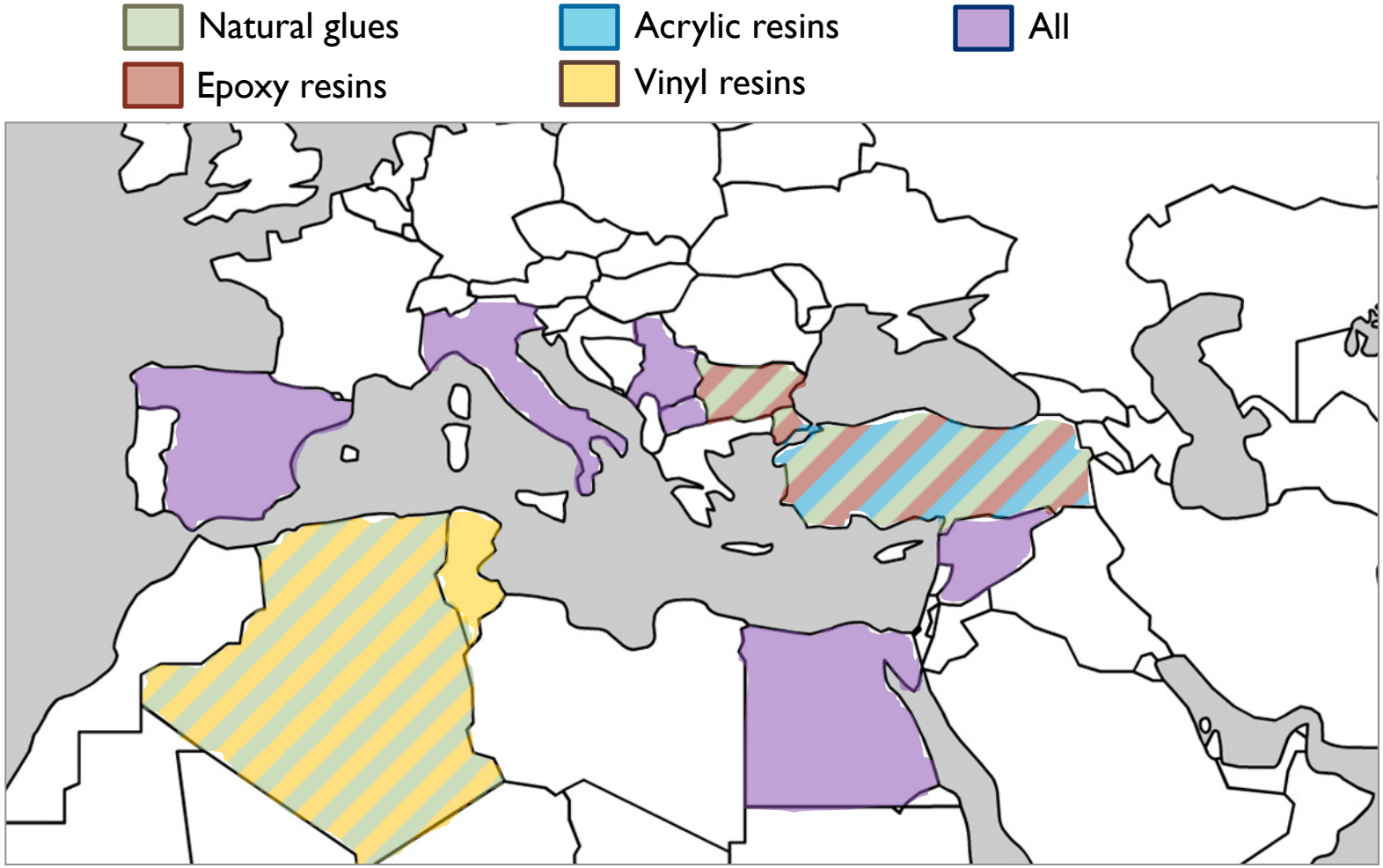
Backing Methods: Adhesive use



Backing Methods: Mortar-based intervention layer

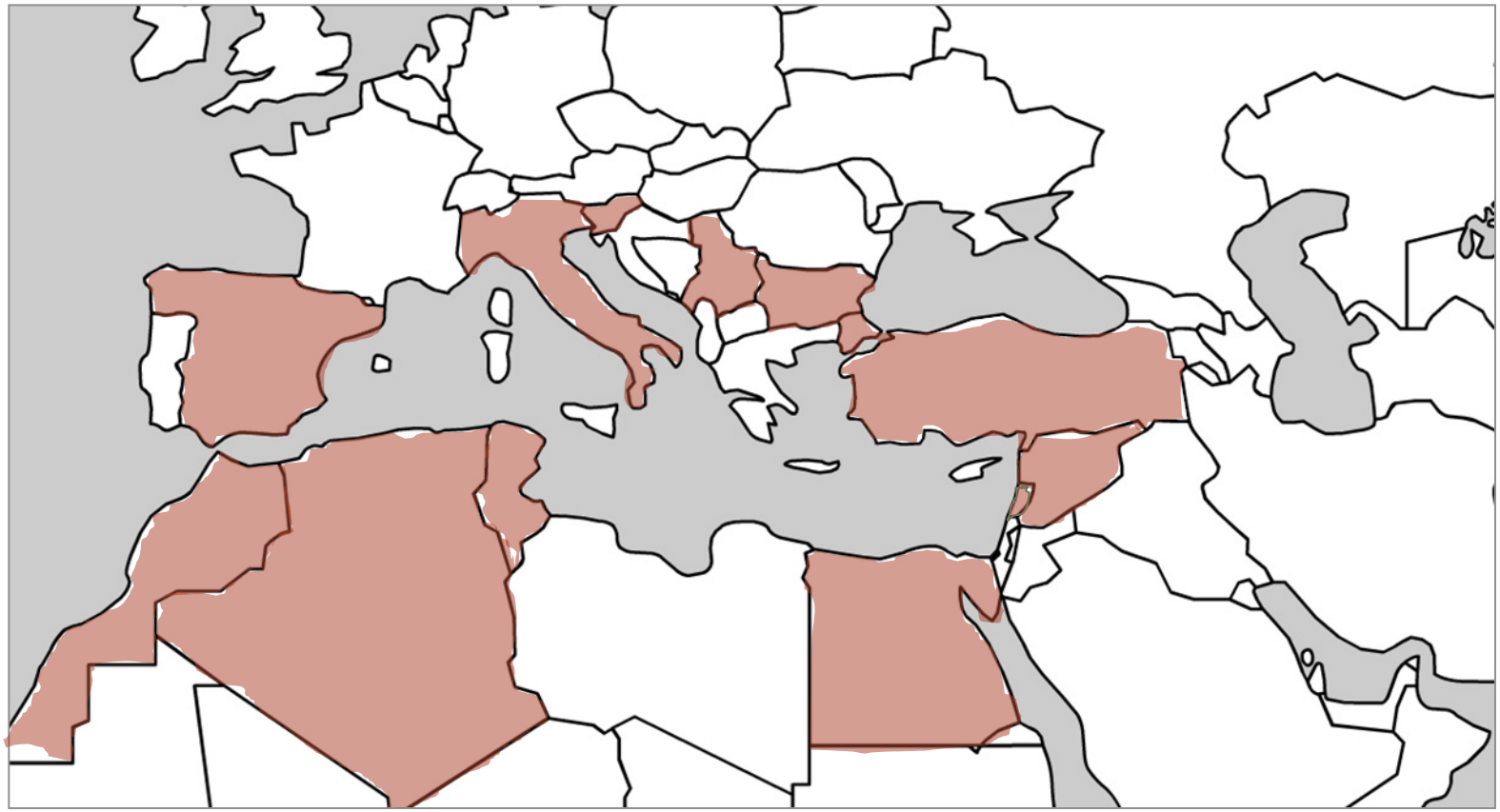


Material Availability: Adhesives

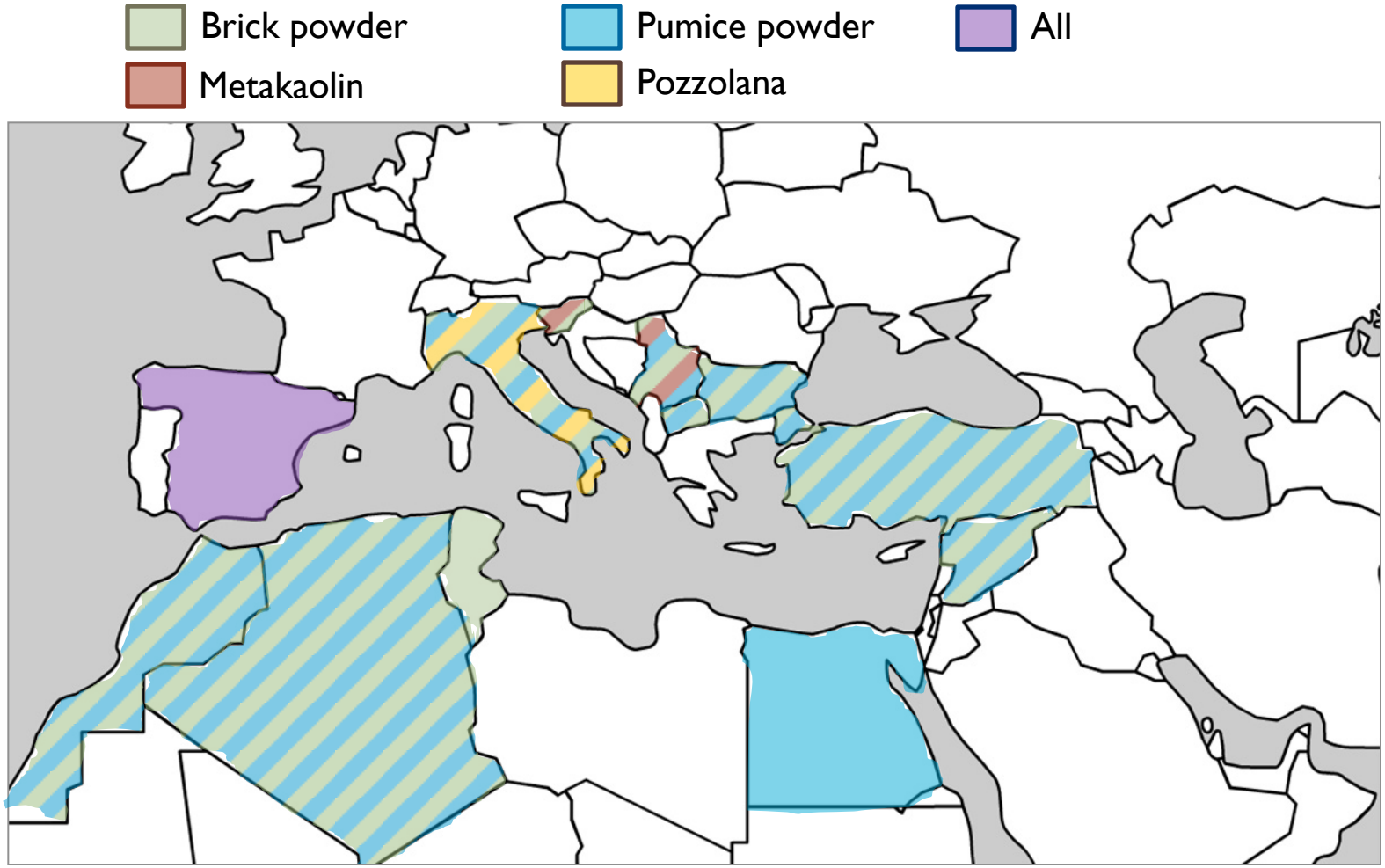


Material Availability: Quicklime, lime putty

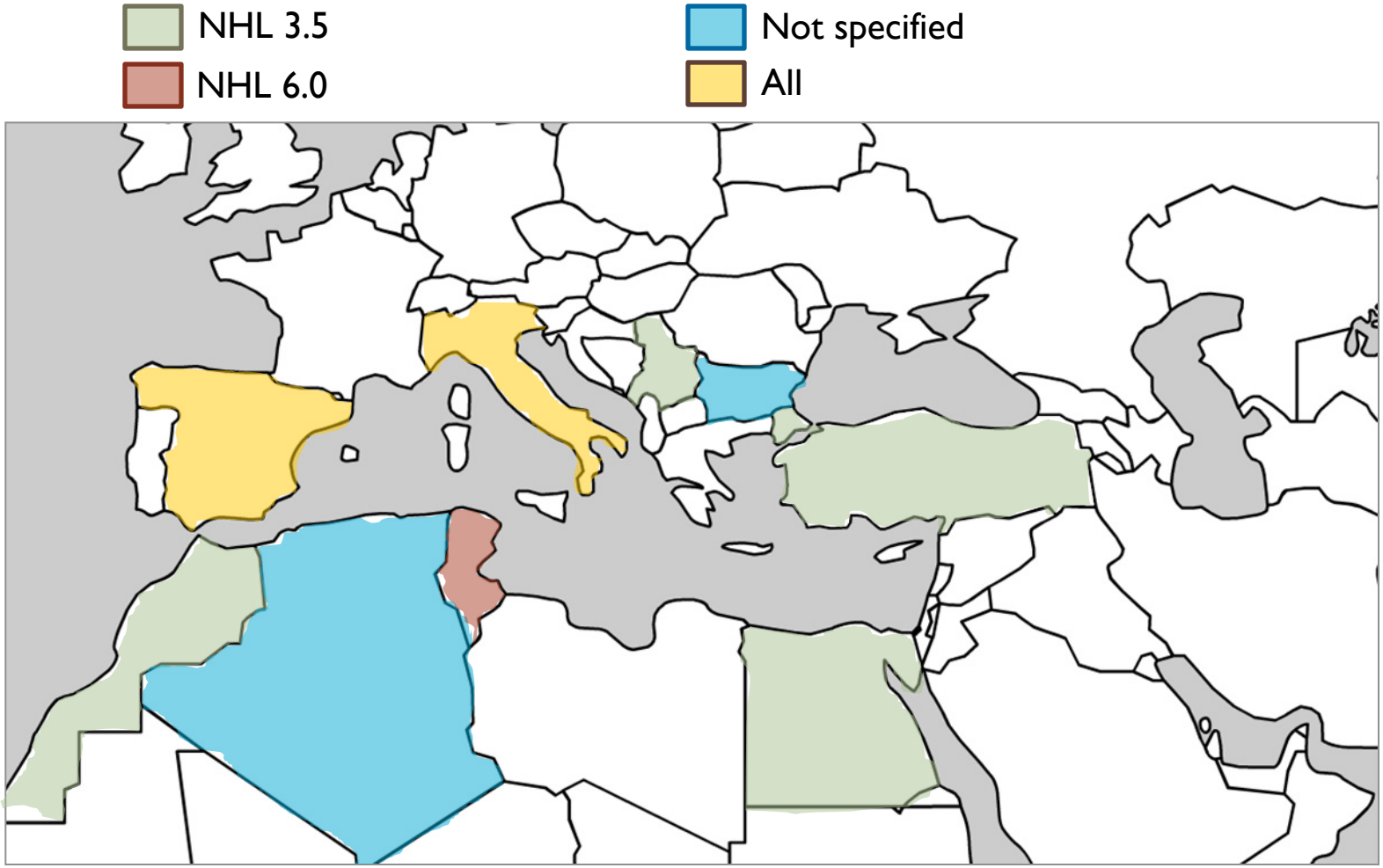
Material Availability: Dry hydrated lime



Material Availability: Pozzolans



Material Availability: Natural hydraulic lime



Material Availability: Al honeycomb panels

In Syria, a new support panel is currently being tested for mosaic backings. Estimated cost: 300 Euros per m^2.

Material Availability: Other lightweight panels

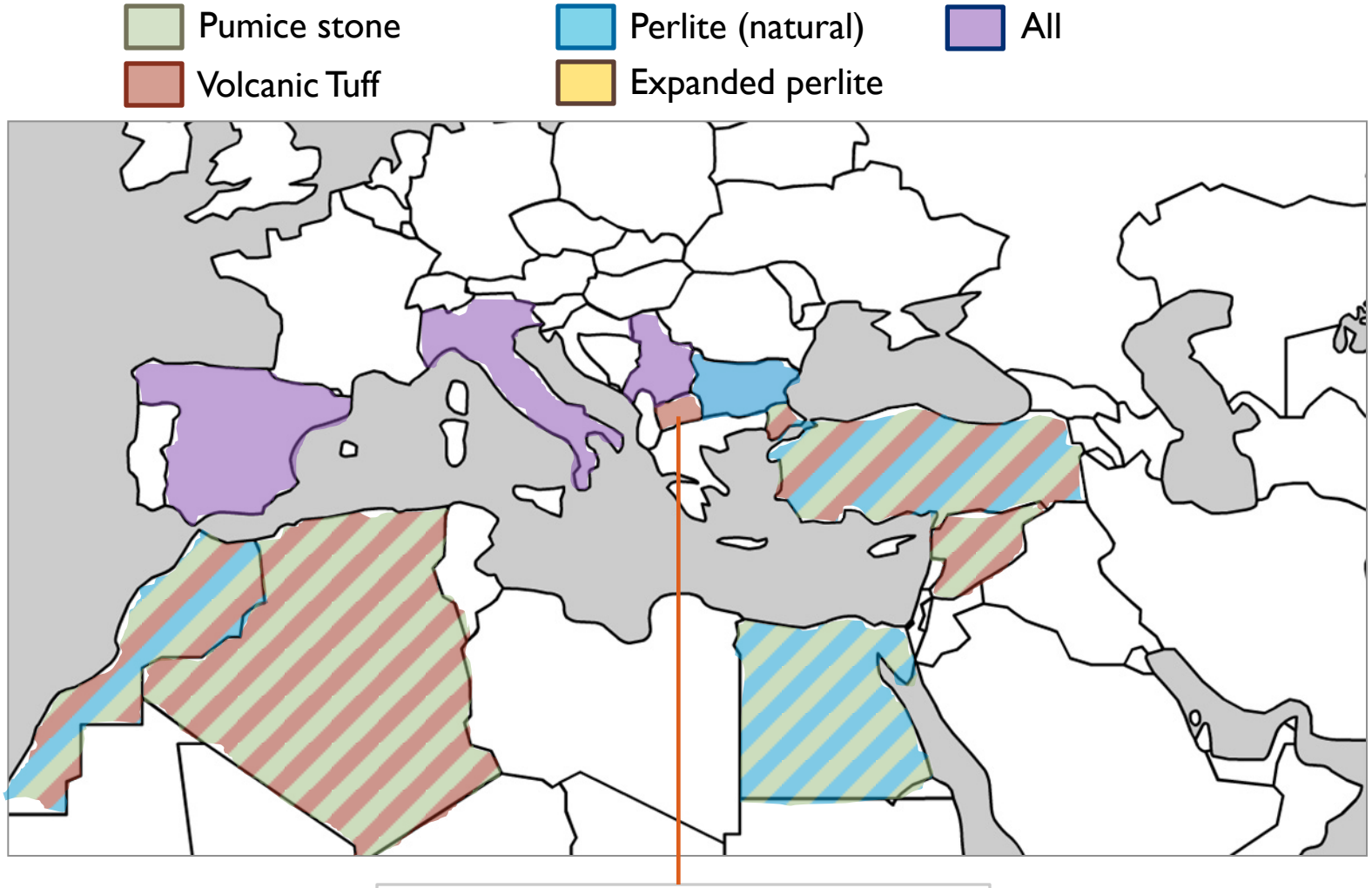
Plastic grids/panels

Hard cardboard honeycomb

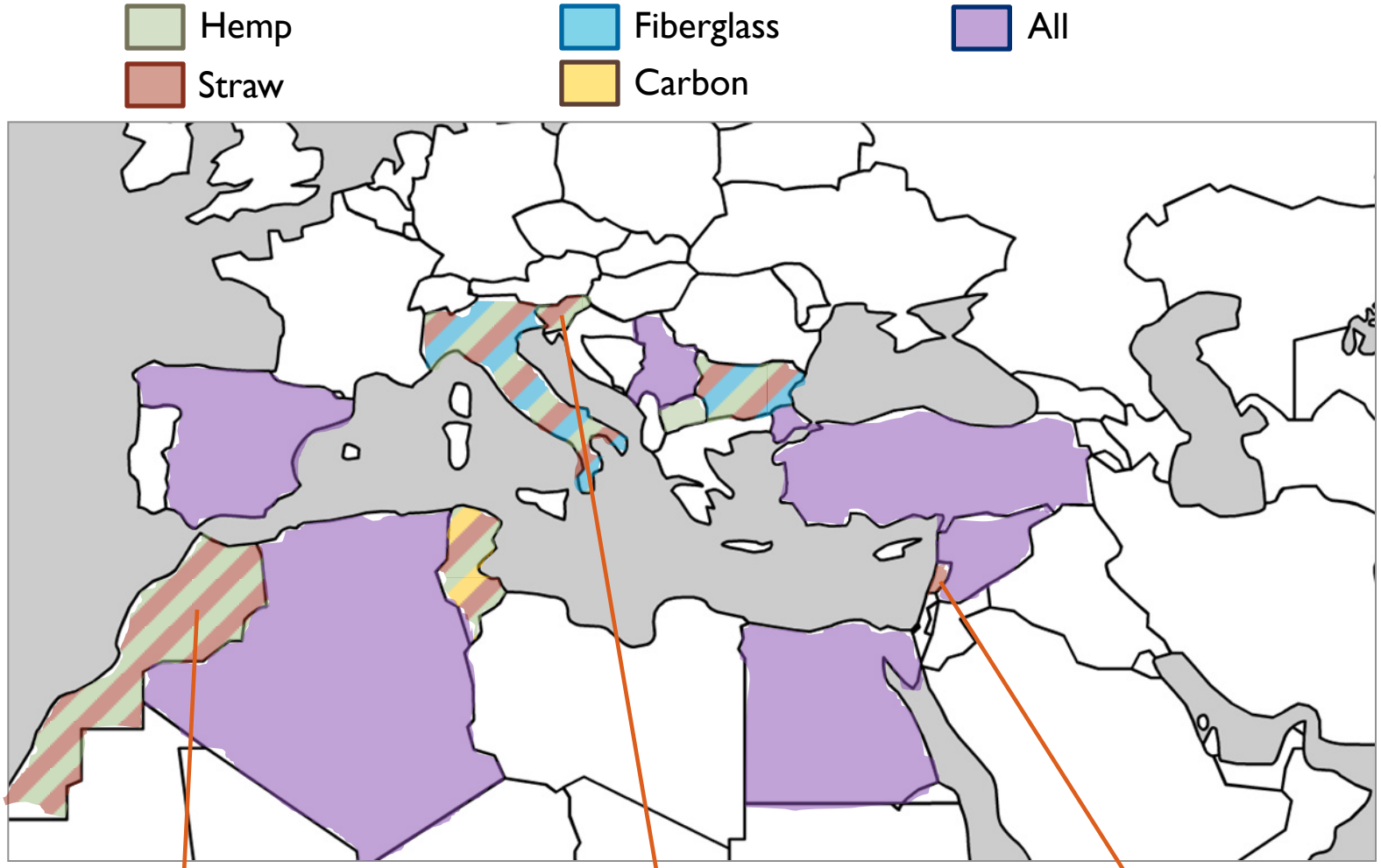
Geonets

Domestic or imported production is not specified for plastic grids in Tunisia.

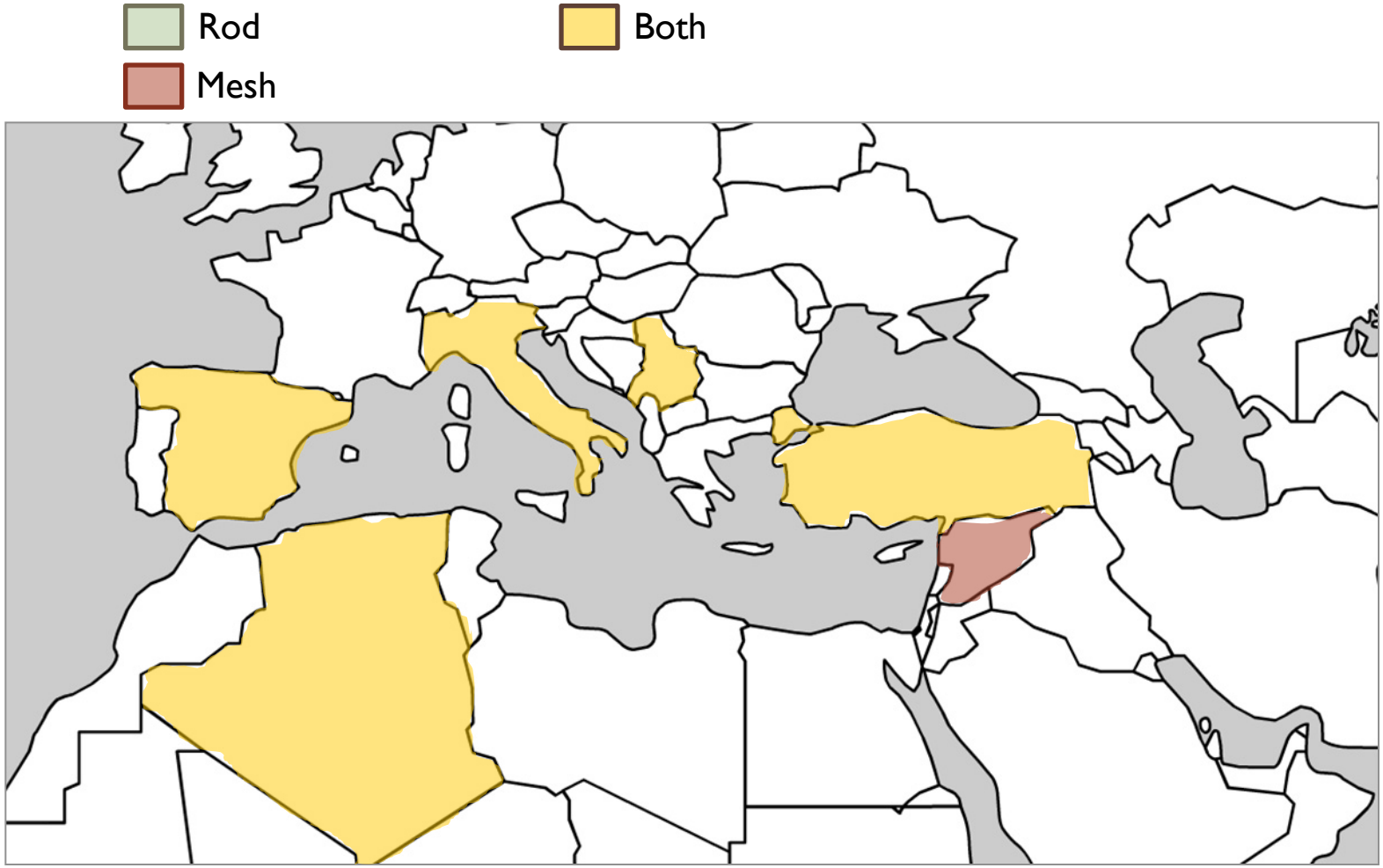
Material Availability: Lightweight aggregates



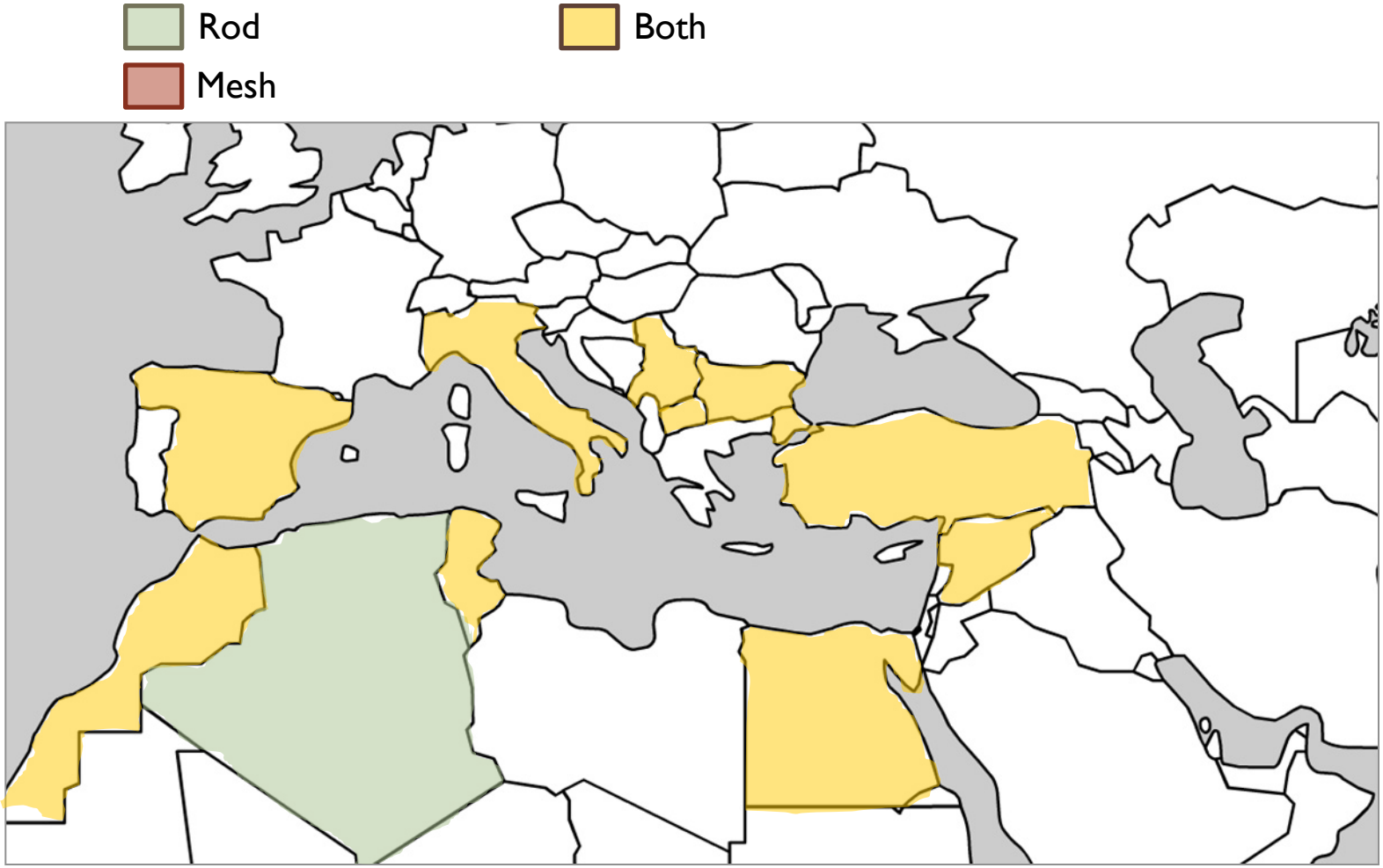
Material Availability: Fibers



Material Availability: Fiberglass



Material Availability: Stainless steel



Summary of Results: Participant Distribution

- Some countries were represented by only one participant in this survey. The limited number of participants from specific countries may have influenced the generalized results. In the future, it is planned to send the survey to more people in these countries
- Some countries including Jordan, Greece and Cypress were not represented in this survey. The survey will be sent out to the conservators working in these countries.
- It is also considered to target groups with other occupations such as engineers, architects, manufacturers, etc. in the countries currently involved in the MOSAIKON initiative.

Summary of Results: Backing Methods

- The use of plaster of Paris with wooden armature and steel reinforced concrete as backing system has been reduced significantly.
- Before 2001, the use of aluminum honeycomb panels for mosaic backings was already widespread. During the last 10 years, more countries began to use this material.
- The countries using Al honeycomb panel backings also use adhesives for bonding the support panel. Some of these countries use adhesives in the intervention layer as well. Usually acrylic adhesives are used in the mortars, while epoxy resins are applied for bonding the support panel.

Summary of Results: Backing Methods

- The use of reinforced lime-based mortars for mosaic backings have been, and still are, a popular method in the region. A few countries use lime-based mortars with a cement additive.

- While lime is the most common mortar-based intervention layer used in all participating countries, cement, cement-lime and hydraulic lime mortars are also used.

Summary of Results: Material Availability

- Quicklime, lime putty and dry hydrated lime are widely available in the region.
- Domestic production of natural hydraulic lime is limited to NHL 3.5 in Turkey, Egypt, Morocco and Serbia, and to NHL 6 in Tunisia.
- Pumice and brick powder are the most available pozzolans in the region. Man-made pozzolan is only available in European countries.
- One or more types of lightweight aggregates including volcanic tuff, pumice stone and perlite are available in the participated countries. Man-made lightweight aggregates such as expanded perlite, shale, etc. are only produced in European countries.

Summary of Results: Material Availability

- Regarding fiber materials, hemp and/or straw is available in all the participating countries. In addition to these, carbon fiber is produced in Tunisia, fiberglass fiber is produced in Italy and Bulgaria, and both types of fibers are produced in Algeria, Egypt, Syria, Turkey, Serbia and Spain.

- Spain, Italy, Turkey and Syria have domestically produced honeycomb panels. Plastic grids are available in Spain, Italy, Serbia, Macedonia, Syria, Algeria and Morocco.

- Locally produced stainless steel mesh and/or rods are available in most of the participated countries while fewer countries produce fiberglass mesh and/or rods.

For more information on the MOSAIKON Initiative visit the Getty Conservation Institute website: http://bit.ly/mosaikon