

Experimental reproduction of ancient plasters

PlaCe Training Course, May 21–24, 2023

Venues

Experiments: Old Solvay's Quarry near Bubovice (N 49°58.55603', E 14°8.98727')

Lectures: Apollon's hall, Vila Lanna, V Sadech 1, 160 00 Praha 6 – Bubeneč

Course programme

Sunday 21 May, meeting at Vila Lanna at 14,00, transport to the experimental site

15,00–17,00

Welcome, introduction to the site and course activities. Health and safety issues.

Loading a lime kiln with limestone. Main principles of traditional lime burning – a wood-fired flare kiln.

Jan Válek, Ph.D., Petr Kozlovcev, Ph.D., Kristýna Kotková, Jiří Frankl, Ph.D., Josef Jiroušek

Coffee, tea, water and small refreshment will be provided.

Monday 22 May, meeting at Vila Lanna at 9,00, transport to the experimental site

10,00–17,00

Preparation of raw materials for experiments. Lime burning in an experimental kiln, slaking to putty,

basket slaking, hot mortar mixing, gypsum burning and processing, aggregate and clay pigments

preparation. *Jan Válek, Ph.D., Zuzana Wichterlová, Jana Waisserová, Petr Kozlovcev, Ph.D.,*

Kristýna Kotková, Jiří Frankl, Ph.D., Josef Jiroušek

Lunch, coffee, tea, water and small refreshment will be provided

Tuesday 23 May, Apollon's hall, Vila Lanna

9,00

Opening of the workshop, *prof. Stanislav Pospíšil, Ph.D. director of ÚTAM AV ČR*

Early use and development

9,15–9,45

Notes on the early use of lime and gypsum in architecture, *Jan Válek, Ph.D.*

9,45–10,30

Early pyrotechnology in Cyprus for lime and gypsum*, *Maria Philokyrou, Ph.D.*

10,30–11,15

Discussion and knowledge sharing among participants

Coffee break

Technologies

11,15–12,00

Lime technologies, raw materials, production, processing and hardening, *Jan Válek, Ph.D.*

12,00–12,30

Gypsum technologies, raw materials, production, processing and hardening, *Jan Válek, Ph.D.*

12,30–12,45

Discussion

Lunch at Vila Lanna

Experimental understanding of past technologies, techniques and materials

13,45–14,30

Experimental archaeology - Experimental construction of pottery kilns and firing structures,

Petra Tušlová, Ph.D.

14,30–15,15

Design of compatible restoration composite materials through reverse engineering*,

Ioannis Ioannou, Ph.D.

15,15–15,45

Discussion and knowledge sharing among participants

Coffee break

15,45–16,15

Thermal analysis – an instrumental tool for understanding historic mortar binders, *Dita Frankeová, Ph.D.*

16,15–16,30

Study of plasters from the replication and technological copy point of view - introduction to practical experiments, *Jan Válek, Ph.D.*

16,30–17,00

Discussion, participants are welcome to share specific plaster cases.

* online participants and presentations

Wednesday 24 May, meeting at Vila Lanna at 9,00, transport to the experimental site

10,00–16,00

Experimental reproduction of plasters. Practical exercises in groups. *Jan Válek, Ph.D., Zuzana*

Wichterlová, Jana Waisserová, Petr Kozlovcev, Ph.D., Kristýna Kotková, Josef Jiroušek, Jiří Frankl, Ph.D.

Lunch, coffee, tea, water and small refreshment will be provided

19,00

Dinner at Vila Lanna

Organised by the Institute of Theoretical and Applied Mechanics of the Czech Academy of Sciences.



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PlaCe - ITN
Pre-modern Plasters and Ceramics