



D 7.8 – Local Workshop Vienna

Project Information

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Deliverable Information

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Contributing Partners	DBHWIEN, INSTM, IATCS, BiGeo, UBAM, HDK,
Nature	
Authors	Franz Zehetner
Contributors	
Reviewers	
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Dissemination Level

PU	Public	✓
PP	Restricted to other programme participants (incl. Commission Services)	
RE	Restricted to a group specified by the consortium (incl. Commission Services)	
CO	Confidential, only for the members of the consortium (incl. Commission Services)	



Table of Contents

1	INTRODUCTION	3
2	GENERAL INFORMATION.....	4
2.1	Title:.....	4
2.2	Date:	4
2.3	Location:	4
2.4	Organizers and Contributors:	4
2.5	Language:.....	4
2.6	Translation service foreseen (yes/no):.....	4
2.7	Target Audience:	4
2.8	Foreseen number of people:	4
2.9	Actual number of participating people:	4
2.10	How were participants invited?	4
2.11	Used communication tools for workshop visibility/publicity:.....	5
3	DESCRIPTION OF WORKSHOP	6
3.1	Objectives and description of the event:	6
3.2	Practical lessons on site:.....	7
3.3	Assessment of results:.....	7
3.3.1	For experts and professionals:	7
3.3.2	For the general public.....	7
3.4	Results and Expected Impacts:	7
3.5	Modifications from what had been planned in Deliverable D7.5 “Training public plan”:	8
4	AGENDA.....	9
1.1	English translation of the agenda:.....	10
5	LINKED ACTIVITIES.....	11
6	Annexes	12



1 INTRODUCTION

The workshop, in line with the Training Public Plan, was planned to bring information about NANO-Cathedral activities to a local public in Vienna and Austria.

The most important target groups were:

- restorers,
- specialists from the local authorities of conservation and preservation of monuments
- architects
- builders
- building physicists.

but it was also open for general public.

In a theoretical part the project and it's objectives were presented as well as the results of the laboratory-tests.

In the practical part the testing sites of St. Stephen's cathedral were visited and explained.



2 GENERAL INFORMATION

2.1 Title:

NANO-Cathedral Workshop in Wien

2.2 Date:

21.9.2017

2.3 Location:

- St. Stephen's Cathedral
- Workshop of the cathedral
- "Stefanisaal", an auditorium on St. Stephen's square, right next to the cathedral, 1010 Wien, Stephansplatz 3

2.4 Organizers and Contributors:

DBHWIEN, BI.Geo, IATCS, UBAM, HDK, INSTM

2.5 Language:

German, two lectures in english

2.6 Translation service foreseen (yes/no):

no

2.7 Target Audience:

Restorers, Builders, Building physicists, officials responsible for the preservation of monuments (public, private, ecclesiastical).

2.8 Foreseen number of people:

40-50

2.9 Actual number of participating people:

45

2.10 How were participants invited?

Printed magazines of the fundraising-organisations for St.Stephen's cathedral

Posters at the entrances of the cathedral and on the poster walls of the workshop.

Mails to restorers' society of Austria

Mailing list of Bundesdenkmalamt, the Austrian Authority for the Preservation of Monuments

Mailing to the attendants of NANO-lime-Workshop in Vienna



Posters in the Technical University Vienna, University of Fine Arts, University of Applied Arts,
Contacts to the respective Universities and their students.

2.11 Used communication tools for workshop visibility/publicity:

Homepage of DBHWIEN and nanocathedral.eu

Posters on the cathedral

Announcements in journals related to the cathedral (Circulation : 7.500 and 10.000)

Report in "Kultur heute", ORF; the Austrian Broadcasting Corporation, broadcasted on:
Tuesday, 3.10.2017, 19.50, Rerun on Wednesday, 4.10., 03:15 and 06:35.



3 DESCRIPTION OF WORKSHOP

3.1 Objectives and description of the event:

The workshop was planned to bring information about NANO-Cathedral activities to a local public in Austria and especially in Vienna.

The most important target group were restorers and specialists from the local authorities of conservation and preservation of monuments, architects, builders and building physicists, but it was also open for general public.

The workshop took place in a venue right 20 m from the cathedral. Coffee and lunch were served in the lobby of the venue to avoid breaks and to allow discussion between participants and lecturers.

In the first part of the workshop a short description of structure and aims of the NANO-Cathedral project was given by Johannes Weber, IATCS.

A lecture about history and problems of restoration-works on St.Stephen's cathedral showed some challenges for restoration practice, that could be solved by new technologies, especially NANO-materials was given by Wolfgang Zehetner, DBHWIEN.

A lecture about the decay of the stones most used for building St. Stephen's cathedral, held by Andreas Rohatsch, Bi.Geo, showed the problems of stone conservation in practical restoration work. The different stones cause different problems and need different conservation procedures and materials.

The presentation about the acceptance of NANO-products showed very positive results about this important field for the development of New Technologies. (Zoltan Juhasz and Bock, BACES, UNIBAM)

After a coffee break the laboratory tests, executed by IATCS and Bi.Geo were presented by Elisabeth Mascha (IATCS) and Matea Ban (Bi.Geo). The differences of the various stones, and the difficulties to find a special treatment for the respective stones were pointed out. A single solution for all demands is impossible, the intense studies on the different stones is a base for the development of the right treatment.

Experiences with NANO-materials achieved by the project NANO-Match in Köln were presented by Ulrike Brinkmann from our project partner HDK.

In the afternoon a part in english language was held by italian project-partners.

The methods of evaluating the nano protective treatments on different lithotypes were presented by Francesca Gherardi, INSTM and the problems of the protection of natural stones in outdoor environment was shown on examples of the Milan Cathedral by Lucia Toniolo, INSTM



3.2 Practical lessons on site:

For the practical lessons – due to the big number of attendants – the auditorium had to be divided in several groups. After a presentation of the tested agents and stones and the application instruments in the loft of the cathedral, small groups were formed to visit the different testing sites, try the application and to discuss the results and open questions:

On Test Area 1 and the “playground” the application was demonstrated, results of the application and the comparison of untreated stone with the different agents were shown and discussed.

On Test area 4 the preparation of this delicate piece was shown as well as the application of the best NANO – materials and treatments. The groups were attended by Martin Pliessnig and Malgorzata Mozdiniewicz (DBHWIEN).

To better understand the effects of climatic and environmental parameters to the stones – both treated and untreated – a monitoring station for surveying climate data as well as moisture and temperature on the surface of stones and in their interior had been installed and was presented to the workshop participants by Erich Mursch-Radlgruber from the Vienna University of Live Sciences and Franz Zehetner, DBHWIEN.

The practical section was filmed by a television team of the Austrian Broadcasting Corporation and a report sent in a prime-time culture-magazine.

3.3 Assessment of results:

There were two fields of results of the workshop:

3.3.1 For experts and professionals:

For the participants familiar with the problems of restoration the workshop raised interest in the targets of “NANO-Cathedral” and the awareness for the possibilities of New Technologies.

3.3.2 For the general public

The workshop was an opportunity to focus public interest to the project. Attention was driven to the project by posters in public space and TV-broadcasting. Some of the reports will be broadcasted during the 6th technical meeting in Vienna in November 2017, with additional interviews and reports.

3.4 Results and Expected Impacts:

In preparation for the workshop media-contacts were established. For the Technical meeting other media than ORF will broadcast TV and Radio-reports. Newspapers articles on NANO-Cathedral will be launched after the Technical Meeting.



3.5 Modifications from what had been planned in Deliverable D7.5 “Training public plan”:

No significant changes were made.



4 AGENDA

- 09:00 Stephansdom: Baugeschichte, Restaurierproblematik
 Architekt DI Wolfgang Zehetner, Dombaumeister, Wien
- 09:30 Das EU-Projekt Nano-Cathedral
 Prof. Dr. Johannes Weber, Universität für Angewandte Kunst, Wien
- 09:45 Die Akzeptanz von Nano-Produkten zur Steinbehandlung
 in Bevölkerung und Wirtschaft
 Tamara Bock, Dr. Zoltan Juhasz, Universität Bamberg
- 10:15 Gesteinsverwitterung an den Leithakalken des Stephansdomes
 Prof. Dr. Andreas Rohatsch, TU Wien
- 10:45 *Kaffeepause*
- 11:15 Gesteinsverwitterung und Auswirkung von Festigungsmaßnahmen
 im Gefüge anhand von Laborversuchen.
 Mag. Elisabeth Mascha, Universität für Angewandte Kunst, Wien
- 11:45 Mechanische und physikalische Untersuchungen
 an gefestigten und ungefestigten Steinen
 Mag. Matea Ban, TU Wien
- 12:15 Ein neues Konsolidierungsmaterial für craqueliertes Glas
 Dr. Ulrike Brinkmann, Dombauhütte Köln
- 12:45 Zusammenfassung, Fragen
- 13:00 *Mittagspause*
- 14:15 The evaluation of nano protective treatments on different lithotypes
 Dr. Francesca Gherardi, TU Mailand
- 14:45 The protection of natural stones in outdoor environment:
 New perspective to a difficult challenge
 Prof. Dr. Lucia Toniolo, TU Mailand
- 15:15 *Kaffeepause*
- 15:45 Praktische Anwendung in der Werkstatt und am Gerüst
 Mag. Martin Pliessnig, Mag. Malgorzata Mozdiniewicz, Christoph Getzner
- 18:00 Ausklang in der Dombauhütte



1.1 English translation of the agenda:

- 09:00 St. Stephen's Cathedral: Building history, topics and problems of restoration
Architekt DI Wolfgang Zehetner, DBHWIEN
- 09:30 The EU-granted project „Nano-Cathedral“
Prof. Dr. Johannes Weber, IATCS; Vienna
- 09:45 Acceptance of Nano-Products for treating stones in public and their acceptance by general public and business.
Tamara Bock, Dr. Zoltan Juhasz, UBAM
- 10:15 Deterioration of limestones of Leithagebirge, used for St. Stephen's Cathedral.
Prof. Dr. Andreas Rohatsch, Bi.Geo
- 10:45 *Coffee Break*
- 11:15 Deterioration of stones and the effects of consolidation – labor tests.
Mag. Elisabeth Mascha, Universität für Angewandte Kunst, Wien
- 11:45 Mechanical and physical analysis of consolidated and non-consolidated stones.
Mag. Matea Ban, Bi.Geo
- 12:15 A new material for consolidating crazed glass.
Dr. Ulrike Brinkmann, HDK
- 12:45 Conclusion, questions.
- 13:00 *Lunch break*
- 14:15 The evaluation of nano protective treatments on different lithotypes
Dr. Francesca Gherardi, INSTM
- 14:45 The protection of natural stones in outdoor environment:
New perspective to a difficult challenge
Prof. Dr. Lucia Toniolo, INSTM
- 15:15 *Coffee break*
- 15:45 Practical Application in the workshop and on the scaffold
Mag. Martin Pliessnig, Mag. Malgorzata Mozdiniewicz, Christoph Getzner, DBHWIEN
- 18:00 Conclusion in the cathedral's workshop



5 LINKED ACTIVITIES

In the workshop UBAM partner (BACES) presented their studies on the acceptance of Nanotechnologies, and used the forum for a survey on the attitude of the expert-public to Nanotechnologies.

As a special dissemination-activity a short television-spot for primetime cultural news was produced.



6 Annexes

Folders, Posters,

List of Participants

Photos,

Video-Clip