
COST Action FP1101

Assessment of historical timber structures, analysis of restoration works : on field experience

1st Training school – 2013,
October 7th -10th, Athens

Content and Objectives


The aim of the training school is to present an overall approach of a restoration project concerning historic timber structures: the steps, the methodology, the problems, the solutions (final interventions) and generally the dilemmas that arise from the very beginning of a study till its final application (construction works). On the above basis, the main topic of the proposed program, “*From the analysis to the construction*”, is focusing on the following thematic areas concerning the assessment and reinforcement procedure of a restoration project :

- *Survey and Constructional analysis, Visual inspection – Visual grading, NDTs and Structural Analysis as tools for understanding and intervening on existing timber structures.* Appropriate inspection and assessment methods provide the necessary data for historical analysis, assessment, structural safety, and planning of intervention works which will respect the building fabric, the original materials, structural systems and techniques.
- *Timber reinforcement methods, Reinforcement of buildings against earthquakes using timber.*

The participants will be trained by visiting 4 restoration projects (3 finished, 1 in progress), following on each site (see the draft program) :

- lectures (theoretical background),
- presentations by slides of the restoration studies,
- presentations by slides and videos of the assessment and reinforcing/repair methods used during the restoration works,
- field investigations and on-site demos on NDT’s and reinforcement methods (hands-on).


For the trainees (PhD students and young researchers), additional “homework” with possible ECTS credits could be organized.

Wednesday 9/10/2013 3	8.00	Departure from Plaka by metro and train to Chalkis (1h). Church of Hagia Paraskevi, House of Bailo (on going restoration works) http://www.icomos.org/iwvc/2007.htm	
	9.00	Arrival to Chalkis	

From the analysis to the construction

NDTs, Timber reinforcement methods, Reinforcement of the building against earthquakes using timber

		Lectures	Speakers/Trainers
	9.45-10.00	Welcome (Ministry of Culture)	
	10.00-11.00	From the analysis to the construction. The case study of the Venetian roof of Hagia Paraskevi.	Prof. C. Bertolini, Politecnico di Torino, prof. P. Toulitatos, NTUA
	11.00-12.00	The restoration project of the Bailos House (Venetian and Ottoman phase).	G. Kourmadas, P. Palatzas, E. Tsakanika
	Coffee break		
		Work on site	Trainers
	12.30-13.30	Visit of the on-going restoration works at the Bailos House	G. Kourmadas, T. Palatzas, E. Tsakanika,
	Lunch		
	14.30-18.30	Application of assessment methods (ultra-sound, resistograph, microtremor method)	M. Riggio, A. Crivellaro, Italy H. Mouzakis, prof. NTUA
	19.00	Departure by train for Athens (hotel)	

Thursday 10/10/2013 4	8.00	Departure by bus to Pyrgos Vasilissis (Queen's Tower) (Ilion- Athens) http://www.organizationearth.org/ http://www.wseas.us/e-library/transactions/environment/2008/28-140.pdf https://www.facebook.com/pages/Pyrgos-Vasilissis/335649833179230	
	8.40	Arrival to Ilion	

From the analysis to the construction

Visual inspection – visual grading. Structural analysis as an assessment tool

		Lectures	Speakers/Trainers
	9.00-10.00	From the analysis to the construction	Dr. D. Yeomans, UK
	10.00-11.00	Visual grading, an assessment tool for existing timber structures.	Dr. H. Cruz, Laboratório Nacional de Engenharia Civil (LNEC), Portugal
	11.00-11.30	Reinforcing a timber roof in Pyrgos Vasilissis	E. Tsakanika, lecturer NTUA
	Coffee break		
		Work on site	Trainers
	12.00-13.30	Visit of recently reinforced and reconstructed roofs	E. Tsakanika
	Lunch		
	14.30-15.30	Visual grading of old timbers	H. Cruz, A. Crivellaro
	15.30-19.00	Work on the trusses of a 19 th century roof, 25m span. Possibility of organization for the trainees of an exam (homework to be sent by email)	D. Yeomans, H. Cruz, E. Tsakanika
	19.00-19.30	Visit of the recently restored Queen's Tower	
		Departure by bus for Athens (hotel)	

COMMENTS

- Number of invited trainees : 25.
The lectures given during the Training School is proposed to be followed by Post graduate students (~35) of the NTUA Inter-Departmental Graduate Program for the "*Protection of Monuments*" and by limited number of members of the Hellenic Ministry of Culture and professionals that work on timber historical structures. The training works on site could be followed too only if this can be accomplished without causing problem to the active participation of the external trainees. The above Greek participants will pay their own expenses (coffee breaks, lunch, transportation). Their presence is considered very important for the dissemination of the scientific and technological knowledge on the topic that COST Action (FP1101) is working on, a topic for which in Greece there is limited experience.
- Number of external invited speakers by COST FP1101: 6-7, (marked in red in the draft program - **C.Bertolini, H. Cruz, D. Yeomans, M. Riggio, A.Harte, A. Crivellaro**). Preliminary contacts have been taken. The final program may change, depending also on the final availability of the trainers. Other potential speakers will be invited if the proposed trainers can not finally participate.
- The external participants (trainees and trainers) can be accomodated either in hotels or hostels in the historical center of Athens (Plaka, Monastiraki, Thissio, Psiri) or in hotels outside the historical center near a metro station.

PROPOSED BUDGET

TRAINING SCHOOL - ATHENS 7/10/2013-10/102013

Assessment of timber structures, analysis of restoration works. On-field experience.

Item	(number)	per part (euros)	number of days	Total (euros)
TRAINEES	25	600		15000
INVITED TRAINERS -external experts	7	700		4900
GREEK TRAINERS (experts)	6	0		0
ORGANIZATION SUPPORT	31	20	5	3100
MEETING ROOM RENTAL	0	0		0
SECRETARIAL SUPPORT	0	0		0
				23000