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CULTURE DU BÂTI
DE QUALITÉ :
RECHERCHE,
INNOVATION
ET ENTERPRISE
POUR LA DURABILITÉ

Technology transfer achievements
in the CUBÂTI project

edited by
Maria Luisa Germanà, Manfredi Saeli e Andrea D'Amore

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The Italy-Tunisia Cross-Border Cooperation (CBC) Programme 2014-2020, adopted by the European Commission, aims to contribute to the overall ENI objective of progressing towards "an area of shared prosperity and good neighbourliness between EU Member States and their neighbours". The objective of the programme is therefore to promote fair, equitable and sustainable economic, social and territorial development in order to foster cross-border integration and enhance the territories and resources of the two participating countries.

Project No. C-5-2.1-16

CUBÂTI Culture du bâti de qualité : Recherche, Innovation et Enterprise pour la Durabilité

Programme Priority 2.1 - Promotion and Support of Research and Innovation in Key Sectors

Programme Thematic Objective OT2 - Support for education, research, technological development and innovation

Programme Outcome R2.1.b - Strengthening links between the business community and researchers working on innovation in key sectors

This booklet has been produced with the financial assistance of the European Union within the framework of the Italy Tunisia Programme 2014-2020©.

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Le Programme de Coopération Transfrontière (CT) Italie-Tunisie 2014-2020, adopté par la Commission Européenne, vise à contribuer à l'objectif global IEV de progrès vers « une zone de prospérité partagée et de bon voisinage entre les États membres de l'UE et leurs voisins ». Le but du Programme IEV de Coopération Transfrontalière Italie-Tunisie 2014-2020 est donc d'encourager un développement économique, social et territorial juste, équitable et durable, en vue de favoriser l'intégration transfrontalière et de valoriser les territoires et les atouts des deux Pays participants.

Projet N. C-5-2.1-16

CUBÂTI Culture du bâti de qualité : Recherche, Innovation et Enterprise pour la Durabilité

Objectif thématique du programme OT2 - Soutien à l'éducation, la recherche, le développement technologique et l'innovation

Priorité du Programme 2.1 - Promotion et appui à la recherche et à l'innovation dans les secteurs clés

Résultat du Programme R2.1.b - Liens renforcés entre le milieu des affaires et les chercheurs travaillant sur l'innovation dans les secteurs clés

Le présent brochure a été réalisé avec l'aide financière de l'Union européenne dans le cadre del Programme *ItalieTunisie2014-2020*©.

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New Digital Frontiers srl
Via Serradifalco, 78
90145 Palermo - Italia
www.newdigitalfrontiers.com

Finished printing in
December 2023
at
Priulla Print srl
Palermo

ISBN: 978-88-5509-595-2

The CUBÂTI project: culture of construction and common identity (M. L. Germanà) Technology transfer in the CUBÂTI experience (M. L. Germanà)

1. The CUBÂTI Technology Library of the UNIPA Architecture Department (M. L. Germanà; A. D'Amore; F. Provenza)
2. Demonstration models on experimental materials (F. Zagarella)
3. Demonstration models on environmental design applications (M. L. Germanà; F. Provenza; F. Zagarella)
4. Adobe (unfired earth bricks) in Tunisia (F. Kharrat; H. Driss)
5. BTC (compressed earth bricks) (F. Kharrat; H. Driss)
6. Adobe (unfired earth bricks) in ancient Sicily (M. L. Germanà)
7. Adobe (unfired earth bricks) in modern Sicily (M. L. Germanà)
8. Scraps from the sea (F. Bertolino; F. Cassarà)
9. Climatic chamber of the Building Laboratory of the UNIPA Architecture Department (M. L. Germanà; M. Saeli; A. D'Amore)
10. Shared process for materials testing/1 (F. Fernandez; K. Mensi)
11. Shared process for materials testing/1 (F. Fernandez; K. Mensi)
12. Material testing: plaster and mussel shells (M. Saeli; T. Campisi; A. Calà; R. Leone)
13. Material testing: limestone and coffee (M. Saeli; A. Calà; R. Leone)
14. Material testing: plaster and prickly pear waste (S. Colajanni; T. Campisi; V. R. Margiotta)
15. Material testing: plaster and pistachio shells (F. Fernandez; M.G. Insinga; R. Basile)
16. Material testing: plaster and orange peel (F. Fernandez; M.G. Insinga; R. Basile)
17. Material testing: clay and pistachio shells (F. Fernandez; M.G. Insinga; R. Basile)
18. Material testing: clay and orange peel (F. Fernandez; M.G. Insinga; R. Basile)
19. Material testing in Tunisia (K. Mensi)
20. Unique archaeological site in Tunisia. The experimental building (B. Mazigh; K. Chaniour)
21. Construction of demonstration buildings in Tunisia (F. Mhiri; K. Mensi)
22. Production of external opus signinum plaster (G. Guglielmino, winner of PRIX CUBÂTI)
23. Production of outdoor opus signinum paving (G. Guglielmino, winner of PRIX CUBÂTI)
24. Production of raw earth plaster (G. Guglielmino, winner of PRIX CUBÂTI)
25. Production of straw bricks (G. Guglielmino, winner of PRIX CUBÂTI)
26. The 'Marcello' Theatre House: wood and straw (D. Schininnà, Olivo s.r.l., winner of PRIX CUBÂTI)
27. Production of compressed raw earth blocks (A. Ghannem SOIB, winner of PRIX CUBÂTI)
28. Technological design for unfinished buildings (M. L. Germanà, F. Anania)
29. Innovative diagnostics in the field of Structural Health Monitoring (SHM) (TEM LAB, vincitore PRIX CUBÂTI - A. Mulone; F. Di Ganci)
30. Recycling of concrete construction demolition waste (Z. Jaouadi, winner of PRIX CUBÂTI)

Maria Luisa GERMANÀ, Francesca ANANIA

The phenomenon of unfinished buildings occurs in all continents with varying degrees and frequency. Some examples are well known for their out-of-the-ordinary dimensions, but most of the time they are anonymous constructions, widely scattered throughout the territory, which disfigure the landscape and significantly lower the quality of the built environment.

In the Mediterranean region in particular, unfinished buildings are part of everyday life and can almost be understood as a symbol of a 'non-quality' building culture, which does not spare landscapes, historical cities and even archaeological sites.

They can be of public or private commitment, of varying consistency and level of completion, but some recurring technical characteristics can be summarised in the following points:

- In most cases, aerated concrete is the structural building material;
- no maintenance action took place after the work was stopped;
- surface finish layers are frequently omitted, which amplifies the typical physiological decay;
- Low-quality executions aggravate an already worrying pathological picture.
- The presence of unfinished buildings in Sicily is so high that a collective of artists has used the expression 'Sicilian Unfinished' to refer to the phenomenon, as if it were a 'style', regardless of location.



> Città dello sport in Rome, the most famous unfinished public work in Italy, designed by Santiago Calatrava for the 2009 World Swimming Championships.



> Utique is one of the Tunisian archaeological sites studied on the occasion of the APER Project Architecture domestique punique, hellénistique et romaine (financed by the Programme Italie Tunisie 2007-2013) and contains, in addition to important patrician residences, a number of burials in which the use of mud bricks is evidenced. An unfinished structure has stood at the entrance of the site for several years (photo M.L. Germanà, April 2023).

For a few years now, the ARCHSUD LAB (Architectural Sustainable Design Laboratory) of the Department of Architecture of the University of Palermo has been conducting research on unfinished buildings, which has included design experiments on possible ways of completing some identified unfinished buildings. In Tunisia, there is still a lack of studies investigating the phenomenon of unfinished constructions, which can be appreciated even by a non-observant observer..

The CUBÂTI Project has identified the phenomenon of unfinished buildings as a test bench that certainly and concretely sums up the concept of a quality construction culture and that deserves to be further explored, also from a cross-border perspective.

The circumstance of two PRIX CUBÂTI assigned, one in Sicily to TEM LAB and one in Tunisia to REG, has in particular allowed us to investigate the diagnostic methods of structural elements and the possibilities of reuse of demolition waste in the form of aggregates, such as concrete widely found in unfinished buildings.

The topic of unfinished buildings is still open, but the CUBÂTI Project has attempted to make a pragmatic contribution. In particular, in fact, the Project took advantage of the PRIX CUBÂTI assigned to TEM LAB to investigate the methods and instruments of analysis referring to an investigation protocol, still experimental, based on sensors aimed at assessing the state of deterioration of the structures of two unfinished buildings located respectively in Sicily, in Terrasini (PA), and at the CITET headquarters in Tunis.



> Unfinished construction and completion hypothesis (dissertation Project for the completion of the unfinished structure housing the former Magistrate's Court of Aragona by F. Vella 2017).



> Application of the TEM experimental protocol based on sensors for the detection of pH and chloride concentration in Terrasini and at the CITET site in Tunis (photo F. Anania, September 2023; M.L. Germanà, September 2023)