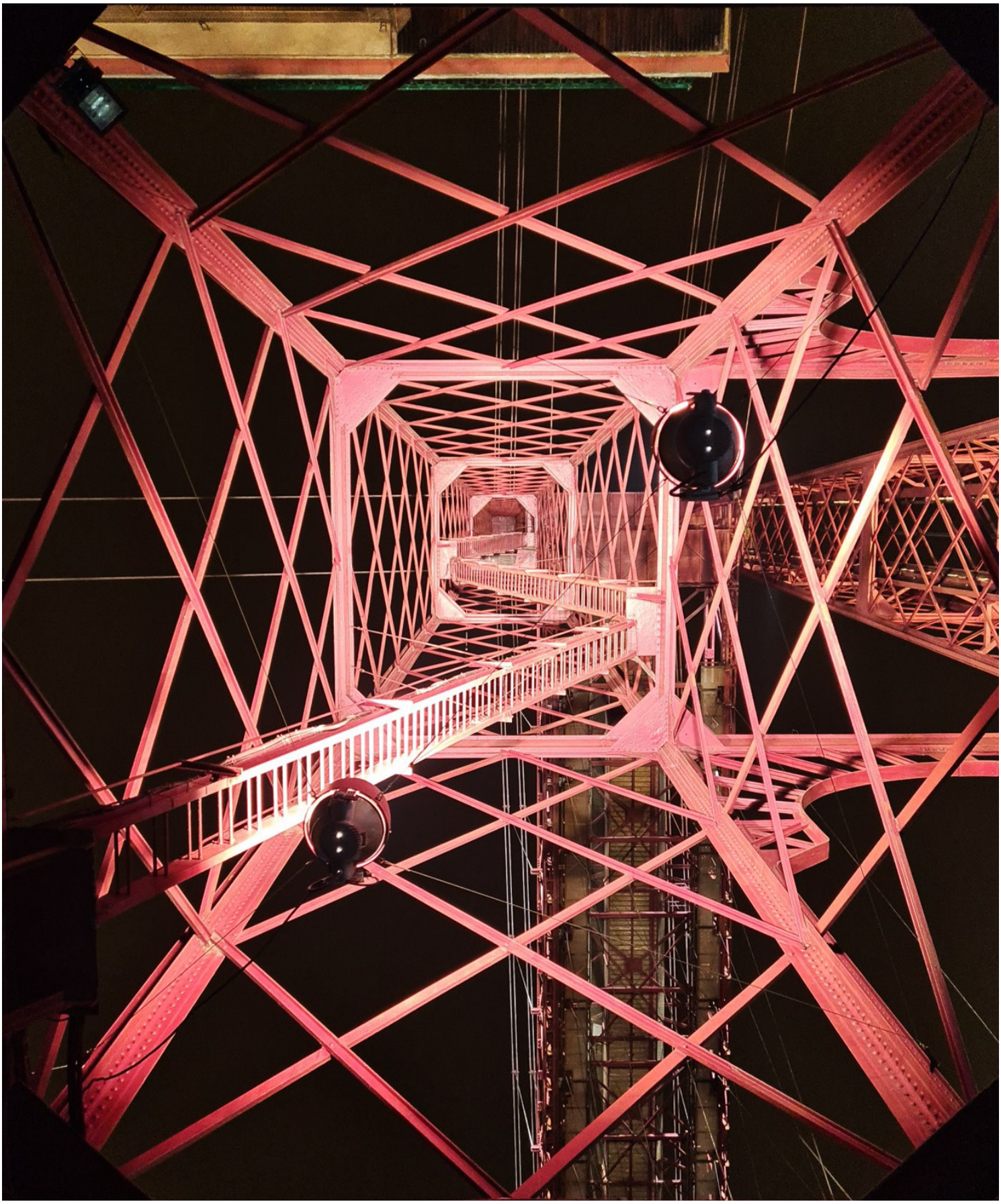

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Editorial 5
Research perspectives in the domain of the built environment
Riccardo Gulli
DOI: 10.30682/tema0802l

CONSTRUCTION HISTORY AND PRESERVATION

Proposal for a new housing model for the inland areas regeneration. The BioVillage 4.0 7
Emanuela D'Andria, Pierfrancesco Fiore, Enrico Sicignano
DOI: 10.30682/tema0802a

Brick masonry staircases of the early 20th century: historical research, condition assessment and diagnostic investigation of a "transition" construction type 16
Mariella De Fino, Fabio Fatiguso
DOI: 10.30682/tema0802b

Technological analysis of a prefabricated timber-based system for the integrated renovation of RC framed buildings 30
Carola Tardo, Giuseppe Margani
DOI: 10.30682/tema0802f

The marble envelope of the *Casa delle Armi* by Luigi Moretti: documentary and experimental knowledge finalized to digital modeling 44
Marco Ferrero, Gabriella Arena, Adriana Ciardiello, Federica Rosso
DOI: 10.30682/tema0802h

The disused precious stone elements are not CDWaste. A digital management chain to save them 56
Raffaella Lione, Ornella Fiandaca, Fabio Minutoli, Alessandra Cernaro, Luis Manuel Palmero
DOI: 10.30682/tema0802i

CONSTRUCTION AND BUILDING PERFORMANCE

Orange peels as a potential ecological thermal insulation material for building application 76
Matteo Vitale, Santi Maria Cascone
DOI: 10.30682/tema0802d

Impact of modelling on the assessment of energy performance in existing buildings: the case of Concordia Sagittaria 85
Lorna Dragonetti, Davide Prati, Annarita Ferrante
DOI: 10.30682/tema0802e

SLICE - Solar Lightweight Intelligent Component for Envelopes: application for the ICARO pavilion 95
Angelo Monteleone, Gianluca Rodonò, Antonio Gagliano, Vincenzo Sapienza
DOI: 10.30682/tema0802g

BUILDING AND DESIGN TECHNOLOGIES

Application of adhesive technology to a new type of glazed panel for curtain walls with an integrated frame 108
Francesco Marchione, Rosa Agliata, Placido Munafò
DOI: 10.30682/tema0802c

EDITORIAL
RESEARCH PERSPECTIVES IN THE DOMAIN OF THE BUILT ENVIRONMENT

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This Issue presents research contributions from seven Italian university groups: Ancona, Bari, Bologna, Catania, Messina, Sapienza Rome, and Salerno. Two primary criteria marked the selection process. The first one concerns adherence to the themes represented by the three main sections of the Journal: 1) Construction history and preservation; 2) Construction and building performance; 3) Building and design technologies. The second one regards the scientific approach adopted by the researchers based on a two-way relationship between theory and practice. This correspondence concerns both methods and tools, ranging from historical and process issues to experimental testing.

The first cluster can be identified for papers presented by the researchers of the University of Bari (De Fino M., Fatiguso F., *Brick masonry staircases of the early 20th century: historical research, condition assessment and diagnostic investigation of a "transition" construction type*), the Sapienza University of Rome (Ferrero M., Arena G., Ciardiello A., Rosso F., *The marble envelope of the* Casa delle Armi *by Luigi Moretti: documentary and experimental knowledge finalized to digital modeling*), and the University of Messina (Lione R., Fiandaca O., Minutoli F., Cernaro A., Palmero L.M., *The disused precious stone elements are not CDWaste. A digital management chain to save them*). These three papers follow the same way to combine historical investigation with diagnostic and process analysis finalized to safeguard the studied artifact. In the first case, the object of interest is represented by the masonry staircases from the early 20th century in central-southern Italy, while the other two contributions focus on stone cladding from the 1920s-1930s Italian architecture. The leading feature of these three works is the importance credited to the knowledge of the object, that is the prerequisite for deriving the methods and aims of the investigation: instrumental, in the case of the Bari research group; procedural and related to the use of digital Historical Building Information Modeling (HBIM), in the other two cases.

The second type of study is oriented to investigate the redevelopment and enhancement of existing heritage, from the urban to the building scale. The works presented by the researchers of the University of Salerno (D'Andria E., Fiore P., Sicignano E., *Proposal for a new housing model for the inland areas regeneration. The BioVillage 4.0*) and the University of Bologna (Dragonetti L., Prati D., Ferrante A., *Impact of modelling on the assessment of energy performance in existing buildings: the case of Concordia Sagittaria*) belong to this domain. For the Salerno research group, the focus is the preservation of the historic village's identity and possible strategies for their re-functionalization; in the case of Bologna, the aim is the expeditious analysis methods for energy savings of the residential building stock. In both cases, the inquiry includes the topic of the active participation of inhabitants in defining design choices.

Finally, the four contributions presented by the University of Catania (Vitale M., Cascone S.M., *Orange peels as a potential ecological thermal insulation material for building application*; Tardo C., Margani G., *Technological analysis of a prefabricated timber-based system for the integrated renovation of RC framed buildings*; Monteleone A., Rodonò G., Gagliano A., Sapienza V., *SLICE - Solar Lightweight Intelligent Component for Envelopes: application for the ICARO pavilion*) and the University of Ancona (Marchione F., Agliata R., Munafò

P., *Application of adhesive technology to a new type of glazed panel for curtain walls with an integrated frame*) deal with the experimentation of innovative building systems and components in terms of theoretical investigation and experimental testing. The *trait d'union* of these research works can be identified in environmental impacts and structural safety, from the scale of buildings to that of materials. Indeed, this scaling dimension, framed within the broad domain of the built environment, constitutes the focus of the TEMA Journal, as a bridge between the two worlds of Construction Engineering and Architecture. This vision embraces the complex and multi-sectoral dimension of knowledge, from objects to processes, including digital ones.