<table>
<thead>
<tr>
<th><strong>Inventory of existing research</strong></th>
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### Project datasheet COST Action TU0905

<table>
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<tr>
<th><strong>Research project</strong></th>
<th>Glass Constructions and Architectural Monuments: transparency and dematerialization in the service of protection, restoration and revaluation of architectural heritage.</th>
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<tbody>
<tr>
<td><strong>Images</strong></td>
<td><img src="image-url" alt="Glass Construction Images" /></td>
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<tr>
<td><strong>Keywords</strong></td>
<td>Transparency, dematerialisation, reversibility, structural and conceptual reversibility, cultural sustainability</td>
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</tbody>
</table>
| **Researchers involved** | - LEFAKI, Styliani; (PhD researcher)  
- BANIOPOULOS, Charalambos; (supervisor)  
- HOIPEL, Xanthippe; (supervisor)  
- KARADEDOS, Giorgos; (supervisor)  
- VELENIS, Giorgos; (supervisor) |
| **Contact details**   | styl.lefaki@gmail.com                                                                                                           |
| **Time span**         | 2010 – ongoing                                                                                                                  |
| **Description**       | Nowadays most part of the building activity takes place in an existing environment, which for reasons of sustainability must be kept and continued. Environment consists of monuments, a term that has expanded to almost every material and cultural evidence of the past. According to this aspect, glass constructions have very often to deal with monuments and take various environmental issues into account. This indicates a higher level of complexity, as glass constructions have additionally to fulfil architectural goals, which derive from the contemporary interpretation of the existing structures and their surroundings.  
This interpretation, often ambiguous, accompanies rescuing and reevaluating interventions with the wish of “non-interventions”. This means, that leaving monuments as they are, should be a preferable choice: a problematic that reveals a controversial decision process, which besides must follow international standards, principles and charters of conservation and restoration, and which is usually expressed with the common demand for structural and contextual reversibility. As transparency and dematerialisation seem to satisfy this demand, glass constructions come first into question for allowing the visibility of the artistic, contextual, historical and technical values of the inherited structures.  
However, transparency and dematerialisation are to be further discussed. How glass... |

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transparency functions in a specific environmental context, how and by what means is it achieved? What will be its longevity in accordance with the monuments’ alteration? How will a “hand made” structure and its patina coexist with a shiny, prefabricated and untouchable construction in a new design integrity? Questions that cannot be simply answered, moreover as architectural transparency is not an unambiguous term and besides its classification as literal and phenomenal, in restorations and reuses requests another approach: the transparency of time, in other words, the simultaneous reveal of structural phases and time layers.

The persistent request for transparency and dematerialisation though, includes a danger of overstaterents and of aggressive glass monumentality against the wished continuity of values. Technology offers enormous structural possibilities for that, though still unsatisfactory for the specific demands arising from the profound analysis and documentation of monuments.

The research intends to point out the potentialities and the limits of glass in the field of protection, revaluation and adaptive reuse of architectural heritage and to contribute to the choice of glass constructions as contemporary interventions for the sustainability of the architectural resources. It includes a theoretical approach that examines the restoration theories, the history of glass interventions on monuments, -aiming or not aiming at transparency. The theoretical approach will help for forming criteria for the evaluation of glass applications in a historical context and will indicate the challenging role of glass: that of giving material architectural solutions to the opposite goals of today’s theories concerning questions of public memory, cultural continuity and sustainability.

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<thead>
<tr>
<th>Most important publications:</th>
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<tbody>
<tr>
<td>- LEFAKI, S. Glass in the contemporary architecture The world of glass, journal, Athens 2001, 112-118.</td>
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<th>Working group:</th>
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<td>WG 4. Novel glass assemblies</td>
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<td>TG11. Architectural geometries</td>
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