HERSUS

Enhancing of Heritage Awareness and Sustainability of Built Environment in Architectural and Urban Design Higher Education

STATEMENTS

for Teaching through Design for Sustainability of the Built Environment and Heritage Awareness

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Statements for Teaching through Design for Sustainability of the Built Environment and Heritage Awareness

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HERSUS

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INTRODUCTION

HERSUS project Intellectual Output 3, titled "Statements for Teaching through Design for Sustainability of the Built Environment and Heritage Awareness" presents a strategy containing (1) necessary qualifications that an architect has to obtain in order to be competent for architectural and urban design, as well as (2) up-to-date qualification that architectural educator needs to obtain in order to advance teaching about the sustainability of the built environment and heritage awareness. The output elaborates proposals regarding the contents and the methods of teaching of the architectural education in the initial defined fields: Sustainable Reconstruction in Urban Areas, Adaptive Reuse and Resilience and Climate Change. Having in mind that the development of IO1 and IO2, as well as, HERSUS Webinar have posed different challenges for all HERSUS researchers, the IO3 aims at reaching a consensus among the HERSUS consortium on concepts and fields of action relevant to sustainability and heritage. In this sense, the initially defined fields are reviewed and hence, the IO3 enables a consensus established through a multigeographical and multicultural perspective across Europe.

GENERAL BACKGROUND:
In the 21st century, the cities urbanisation is passing through significant changes, and the practical arena of architectural and urban design requires the advancement in teaching about the sustainability of the built environment and heritage awareness. The main characteristic that could be distinguished behind the previous analysis is that the present teaching methods and practices of sustainability and heritage are widely questioned and have an increasing interest of the management of HEIs. More specifically, this issue has three-fold complementary perspectives:
(1) the contemporary content of the teaching of the subject areas,
(2) the qualitative and quantitative position of the subject areas in a school curriculum, and
(3) the accomplished methods for the transmission and crossing of the knowledge of the subject areas.

In this context, a particularly important objective is to clarify this new condition of sustainability of the built environment and heritage teaching and discuss its characteristics.

The idea for IO3 arose from the need to bring together teaching staff and experts in disciplines of the built environment to formulate the new unique students' profiles. Statements for teaching bring the innovative element through the implementation of interdisciplinary teaching based on learning by design methodology. Upon completion of the IO3 publication, the HERSUS target groups (students/teachers/trainers/tutors) could use this book to gain a clearer picture of specific training and teaching activities that can enable the alignment of the needs of the practice and teaching of the sustainability of the urban and architectural heritage.

Recommendations on education for the sustainable architectural and urban design sector are produced. The strategy also builds on the results of Seminar C1 – SWOT Analysis. These tools serve to provide a coherent set of information and a programme of advanced teaching modules for architectural and urban design educators. A step closer to reaching an integral professional profile of an architect is primarily the case of thematic enhancement and specialisation rather than structural change of study programmes. This can be achieved through the introduction of different research and educational areas that follow the contemporary course of theory and practice. The project is striving to create a new innovative educational framework that can integrate vital educational challenges in the field of architectural and urban design. The aim is to link scales, to challenge different types of problems, to generate sustainable-based approaches, and to

It is expected that educators would create a new way of thinking and teaching of different European spatial contexts through the shared experience. The IO3 will be a set of recommendations for partners, whose aim is to strengthen and expand cooperation with practice and to strengthen and disseminate the idea of interdisciplinary teaching with respect to the immediate environment of different cultural contexts. Development of teaching strategies will contribute to the better understanding of needs in terms of defining a new professional profile of the students through the exchange of experiences between teaching staff, public and private sector on M1, C1 and E1 in terms of (1) Environmental and Contextual Issues relating to Architecture as well as (2) Collaboration & Interdisciplinarity in Architecture.

In the course of redefining the professional profile of architect through the HEI system, there is a constant striving towards achieving an integral profile - one that will have the capacity and skills:
(1) to connect different scales (from urban to architectural),
(2) to identify different types of problems and solve them through the design, and
(3) to make our environment and cities sustainable for the future.
This output is the primary input for the development of "Book of courses" which will be developed by the academic institutions as a part of the project (IO5). It will be presented in the form of a pedagogical strategy and should be disseminated in all schools of the participating countries and to the broader audience as well. Therefore, the strategy will be available for discussion via the "HERSUS Sharing Platform" (IO4) and HERSUS Website among educators, professionals, and architects from all over Europe.

Based on activities M1, C1 and E1 and gathered experiences from IO1 and IO2, the Statements for teaching will provide ground for discussing content, pedagogical methods, guidelines and future structure of curriculum for teaching within the partner organisations in the relevant fields. IO3 should define and elaborate on professional competencies which need to be developed both by (1) architect/urban designers, and (2) architectural educators.

The Strategy will consist of two parts. The first part of the report connected to a new profile of an architect/urban designer should define both (1) general skills, and (2) specific skills which are needed to be developed through the implementation of new courses. The strategy should formulate students' profiles so that they are trained in the broad architectural domain, that possess technical, technological, socio-humanistic and artistic skills and, therefore, that can contribute to the socio-environmental challenges of the 21st century. The second part of the report connected to a new profile of architectural educator should define both (1) general skills, and (2) specific skills which are needed to be adopted among the educators before the implementation of new courses. The strategy should formulate educators' profiles so that they can be responsible for the improvement of the education and training of future architects/urbanists to enable them to meet the expectations of 21st-century societies worldwide for sustainable human settlements in different cultural contexts.

The IO3 study is prepared in a form of publication which consist of following sections:
Introduction: General Background, Research Phases and Methodology, Study Development,
Teaching Vademecum on Heritage and Sustainability: Statements on Notions, Ideas, Design Strategies, Design Tactics, Tools and Techniques, and Heritage Types relevant for the HERSUS scope through defining:
• General Definition/Explanation of Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
• Literature Selection relevant for Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
• Content WHAT? – Defining relevant content for learning and teaching on specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
• Methods HOW? - Defining relevant methods for learning and teaching on specific Notion,

Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,

- Goals WHY? – Defining learning goals in line with specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
- Course Type – Mark course type/types which could engage specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
- Scale – Mark scale/scales which is relevant for learning on specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
- Learning outcomes – describe expected learning outcomes for students/ competencies which they could obtain through learning on specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type,
- Teachers' Competences – explain necessary competencies of teachers who could be engaged in teaching process of specific Notion, Idea, Design Strategy, Design Tactic, Tool and Technique, and Heritage Type.

Review of Statements/Strategy - defining and elaborating on professional competencies which need to be developed both by (1) architect/urban designers, and (2) architectural educators based on Teaching Vademecum on Heritage and Sustainability – synthesis of analysis.

The basic idea of the central part of IO3 entitled Vademecum on heritage and sustainability is reflected in a dual perspective: (a) establishing statements about the relevant notions, ideas, design strategies, design tactics, tools, techniques and heritage types, and (b) establishing statements about their importance for the domain of education. The Vademecum will present a series of analysed terms according to the structure from the proposed template and will together with IO1 and IO2 represent the basis for the later creation of the Book of Courses (IO5) through the intersection of different statements.

RESEARCH PROCESS

IO1, LTT1, E1, IO2 results and conclussions and contents

▼

SWOT ANALISYS

▼

IO3 conceptualization
Methodology Proposal Development

▼

Methodology Presentation, Collecting Comments and Reflections

▼

Work on IO3 Tag matrix
Proposing terms and categories

▼

Finalization of IO3 Tag matrix
Finalization of IO3 Protocal

▼

Selection of terms and
Analyzis of terms

▼

Designing Teaching Vademecum on Heritage and Sustainability

▼

Working on Synthesis of terms and Statements

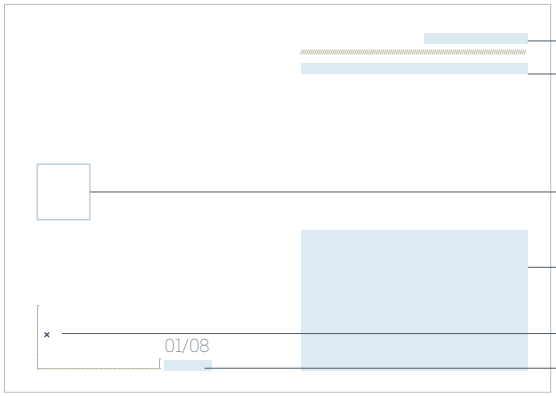
HOW TO READ HERSUS VADEMECUM STATEMENTS

1
GENERAL INFO ON TERM AND AUTHORS

2
WHAT, HOW, WHY, BY WHOM TO BE TOUGHT

3
AT WHAT COURSE TYPE , WHICH SCALE AND WHAT OUTCOMES TO EXPECT

4
RELEVANT REFERENCES FOR THEORY AND PRACTICE

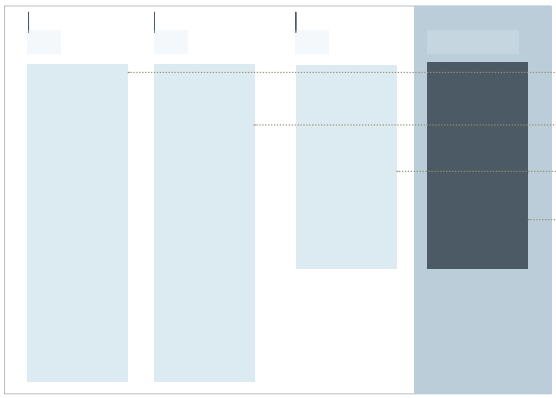


TITLE
TRANSLATION IN HERSUS PARTNERS LANGUAGES

HERSUS PARTNERS LOGO

GENERAL DEFINITION

AUTHOR/S
TYPE OF TERM

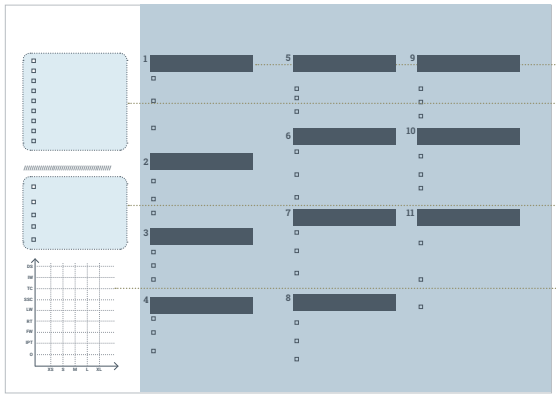


WHAT? CONTENTS

HOW? METHODS

WHY? GOALS

TEACHING COMPETENCES

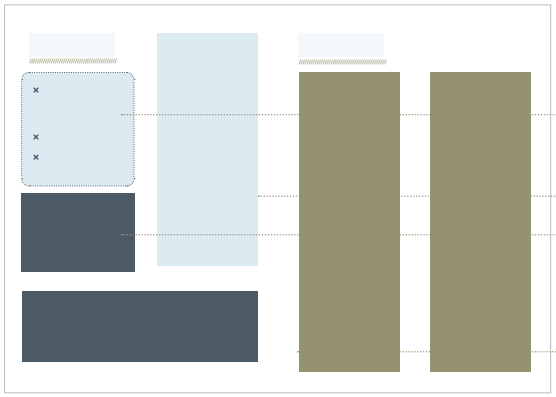


COURSE OUTCOMES
COURSE TYPE

COURSE SCALES

MATRIX - COURSE TYPE IN RELATION TO SCALE

■ □ Checklists



RELEVANT EXAMPLE ID

RELEVANT EXAMPLE EXPLANATION
RELEVANT EXAMPLE PHOTOS

KEY REFERENCES

terms

NOTIONS

Cultural and Collective Memory

×

Urban Narratives

×

Resilience

×

Urban Patterns

×

Heritage genealogy

×

Cultural Studies

×

Cultural Identity

×

Cultural Enhancement

×

Cultural Heritage

UBFA

×

Ana Zorić

04/14

heritage types
statements

PERFORMATIVE AND AFFECTIVE HERITAGE

перформативно и афективно наслеђе • Tradizioni ed espressioni di arti performative e pratiche sociali (eventi rituali e festivi, artigianato tradizionale) • ή Βιωματική και Συναισθηματική Κληρονομιά (Ήθη και έθιμα της πολιτιστικής κληρονομιάς) • Patrimonio Performativo y Afectivo

GENERAL DEFINITION/ EXPLANATION

Performative and affective heritage is a form of heritage that is constantly being constructed and reconstructed in accordance with changes in the socio-cultural context. It refers to spaces that encourage the emotional and imaginary relationship of users, expressed through the examination and reproduction of the past, as well as the reconstruction of existing systems of meaning by developing new interactive practices. These features derive from the historical character of the heritage space, as parts of the past that remain different from the environment, often free and suitable for critical expression, action, and spontaneous appropriation. The process of performativity and affectivity itself must be collective so that different actors can incorporate their different views into debates. In this context, heritage is a polygon of free expression and experimentation through which it is constantly re-examined and changed. In this way, this type of heritage remains active and self-sustaining through current socio-cultural interactions.

WHAT?

CONTENT

Having in mind that this type of heritage is also manifested through intangible forms, habits, and practices, at the level of education it is important to understand intangible forms of heritage and socio-cultural changes. Therefore, important for the learning process is:
- recognizing the relations between space and society, through understanding the history of the place, through studies of culture and behaviourism
- observation of heritage not only as a material but also an intangible category, which still lives and changes

In the context of sustainability, this type of heritage promotes socio-cultural sustainability. By supporting the micro practice of **performative and affective heritage**, as mirrors of society and culture, the attitude towards heritage as a whole is constantly re-examined.

HOW?

METHODS

Performative and affective heritage is a form present at the level of urban practices, in different scales, and the goal is to learn the changes of the urban environment through the socio-cultural aspect, understand spheres of urban life, and develop a critical attitude towards practices in urban space following contemporary trends.

WHY?

GOALS

The main teaching intentions of courses related to vernacular heritage is the holistic presentation of the main principles and characteristics of vernacular heritage and its social content. The students through such courses should develop methodological tools for the study and recognition of the physiognomy of the traditional settlements as well as for understanding the principles of overall protection of vernacular buildings and complexes. These intentions can be fulfilled through lectures, as well as through projects, field trips etc. The study of this heritage is very important as vernacular heritage constitutes a large part of the built environment of many countries and toady many vernacular dwellings are in risk due to abandonment. Thus, there is a need for their study and their protection.

TEACHERS' COMPETENCIES

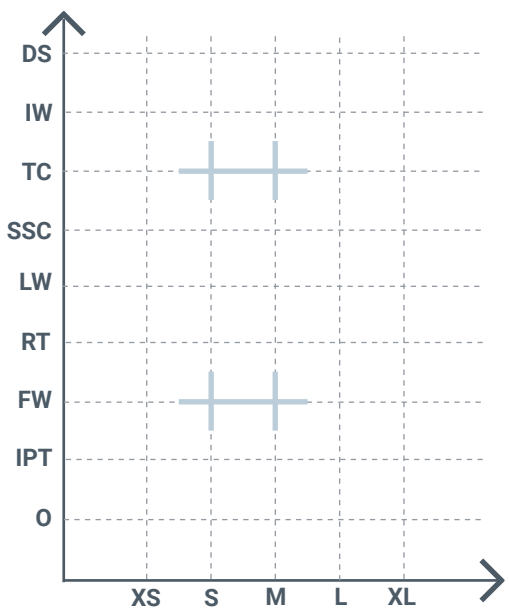
Referring to the importance of understanding social practices as an active part of a heritage, special teaching competencies include knowledge of socio-culture studies. The research approach implies both general knowledge in the field of studies of culture, history, and behaviorism, as well as knowledge of the local specifics of a particular place and current events in society. In addition to the theoretical basis, an important part of learning is the observation and study of sites. In accordance with the above, the teacher should be a knowledgeable expert, but also a social agent and a classroom actor, who encourages critical thinking.

COURSE TYPE

- ☐ Design Studio (DS)
- ☐ Intensive Workshop (IW)
- ■ Theory Course (TC)
- ☐ Seminar (short comprehensive) (SSC)
- ☐ Laboratory work (LW)
- ☐ Research Thesis (RT)
- ■ Field work (FW)
- ☐ Internship Practical training (IPT)
- ☐ Other (O)

SCALE

- ☐ Construction Detailing and Interior Design Scale (XS)
- ■ Architecture: Buildings Scale (S)
- ■ Urban Design Scale (M)
- ☐ Urban and Regional Planning Scale (L)
- ☐ Landscape Scale (XL)



LEARNING OUTCOMES

1 Ability to create architectural designs that satisfy both aesthetic and technical requirements. The student could have the ability to:

- ☐ prepare and present building design projects of diverse scale, complexity, and type in a variety of contexts, using a range of media, and in response to a brief;
- ☐ understand the constructional and structural systems, the environmental strategies and the regulatory requirements that apply to the design and construction of a comprehensive design project;
- ■ develop a conceptual and critical approach to architectural design that integrates and satisfies the aesthetic aspects of a building and the technical requirements of its construction and the needs of the user.

2 Adequate knowledge of the histories and theories of architecture and the related arts, technologies and human sciences. The student will have knowledge of:

- ■ the cultural, social and intellectual histories, theories and technologies that influence the design of buildings;
- ■ the influence of history and theory on the spatial, social, and technological aspects of architecture
- ■ the application of appropriate theoretical concepts to studio design projects, demonstrating a reflective and critical approach.

3 Knowledge of the fine arts as an influence on the quality of architectural design. The student will have knowledge of:

- ☐ how the theories, practices and technologies of the arts influence architectural design;
- ■ the creative application of the fine arts and their relevance and impact on architecture;
- ■ the creative application of such work to studio design projects, in terms of their conceptualisation and representation.

4 Adequate knowledge of urban design, planning and the skills involved in the planning process. The student will have knowledge of:

- ■ theories of urban design and the planning of communities;
- ■ the influence of the design and development of cities, past and present on the contemporary built environment;
- ☐ current planning policy and development control legislation, including social, environmental and economic aspects, and the relevance of these to design development.

5 **Understanding of the relationship between people and buildings, and between buildings and their environment, and the need to relate buildings and the spaces between them to human needs and scale. The student will have an understanding of:**

- ■ the needs and aspirations of building users;
- ■ the impact of buildings on the environment, and the precepts of sustainable design;
- □ the way in which buildings fit into their local context.

6 **Understanding of the profession of architecture and the role of the architect in society, in particular in preparing briefs that take account of social factors. The student will have an understanding of:**

- □ the nature of professionalism and the duties and responsibilities of architects to clients, building users, constructors, co-professionals and the wider society;
- □ the role of the architect within the design team and construction industry, recognising the importance of current methods and trends in the construction of the built environment;
- ■ the potential impact of building projects on existing and proposed communities.

7 **Understanding of the methods of investigation and preparation of the brief for a design project. The student will have an understanding of:**

- ■ the need to critically review precedents relevant to the function, organisation and technological strategy of design proposals;
- □ the need to appraise and prepare building briefs of diverse scales and types, to define client and user requirements and their appropriateness to site and context;
- □ the contributions of architects and co-professionals to the formulation of the brief, and the methods of investigation used in its preparation.

8 **Understanding of the structural design, constructional and engineering problems associated with building design. The student will have an understanding of:**

- □ the investigation, critical appraisal and selection of alternative structural, constructional and material systems relevant to architectural design;
- □ strategies for building construction, and ability to integrate knowledge of structural principles and construction techniques;
- □ the physical properties and characteristics of building materials, components and systems, and the environmental impact of specification choices.

9 **Adequate knowledge of physical problems and technologies and the function of buildings so as to provide them with internal conditions of comfort and protection against the climate. The student will have knowledge of:**

- □ principles associated with designing optimum visual, thermal and acoustic environments;
- □ systems for environmental comfort realised within relevant precepts of sustainable design;
- □ strategies for building services, and ability to integrate these in a design project.

10 **The necessary design skills to meet building users' requirements within the constraints posed by cost factors and building regulations. The student will have the skills to:**

- ■ critically examine the financial factors implied in varying building types, constructional systems, and specification
- □ understand the cost control mechanisms which operate during the development of a project;
- □ prepare designs that will meet building users' requirements and comply with legislation, appropriate performance standards and health and safety requirements.

11 **Adequate knowledge of the industries, organisations, regulations and procedures involved in translating design concepts into buildings and integrating plans into overall planning. The student will have knowledge of:**

- □ the fundamental legal, professional and statutory responsibilities of the architect, and the organisations, regulations and procedures involved in the negotiation and approval of architectural designs, including land law, development control, building regulations and health and safety legislation;
- □ the professional inter-relationships of individuals and organisations involved in procuring and delivering architectural projects, and how these are defined through contractual and organisational structures;
- □ the basic management theories and business principles related to running both an architects' practice and architectural projects, recognising current and emerging trends in the construction industry.

BUILT ARCHITECTURAL / URBAN DESIGN PROJECT EXAMPLE

Ifö Center is a free culture house initiated by artists in an old ceramic factory in the village of Bromölla in southern Sweden. An interesting fact is that the center is located in a factory that is still active. The factory area has been totally closed to outsiders for decades, but select parts can now be visited through the center's guided tours. The center offers an outdoor gallery for the artwork of local and international street artists, studio space, residencies and various workshops, art exhibitions, etc.

http://ifocenterenglish.weebly.com/

RELEVANT LITERATURE / SOURCES FOR FURTHER RESEARCH

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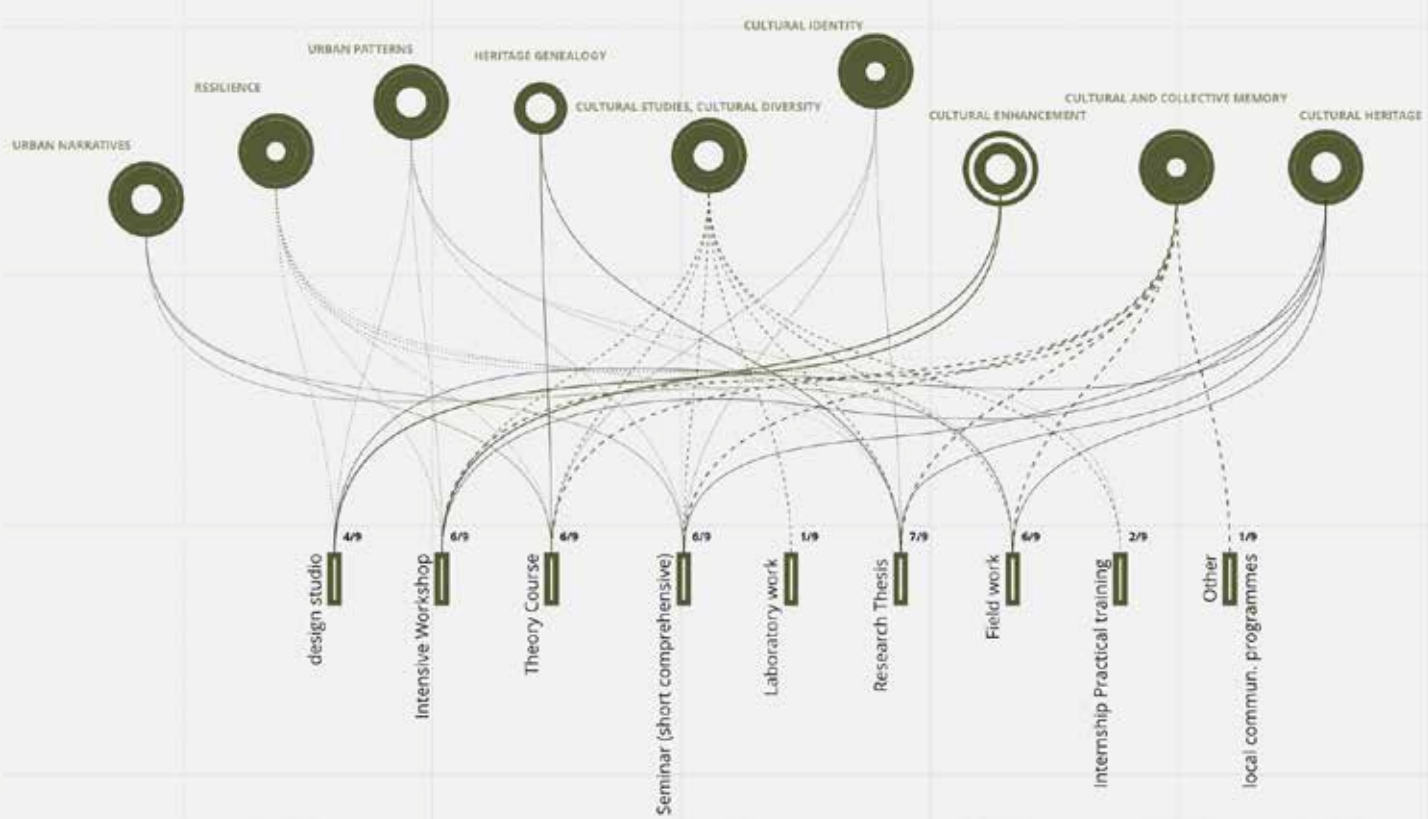
CONCLUSIONS

NOTIONS

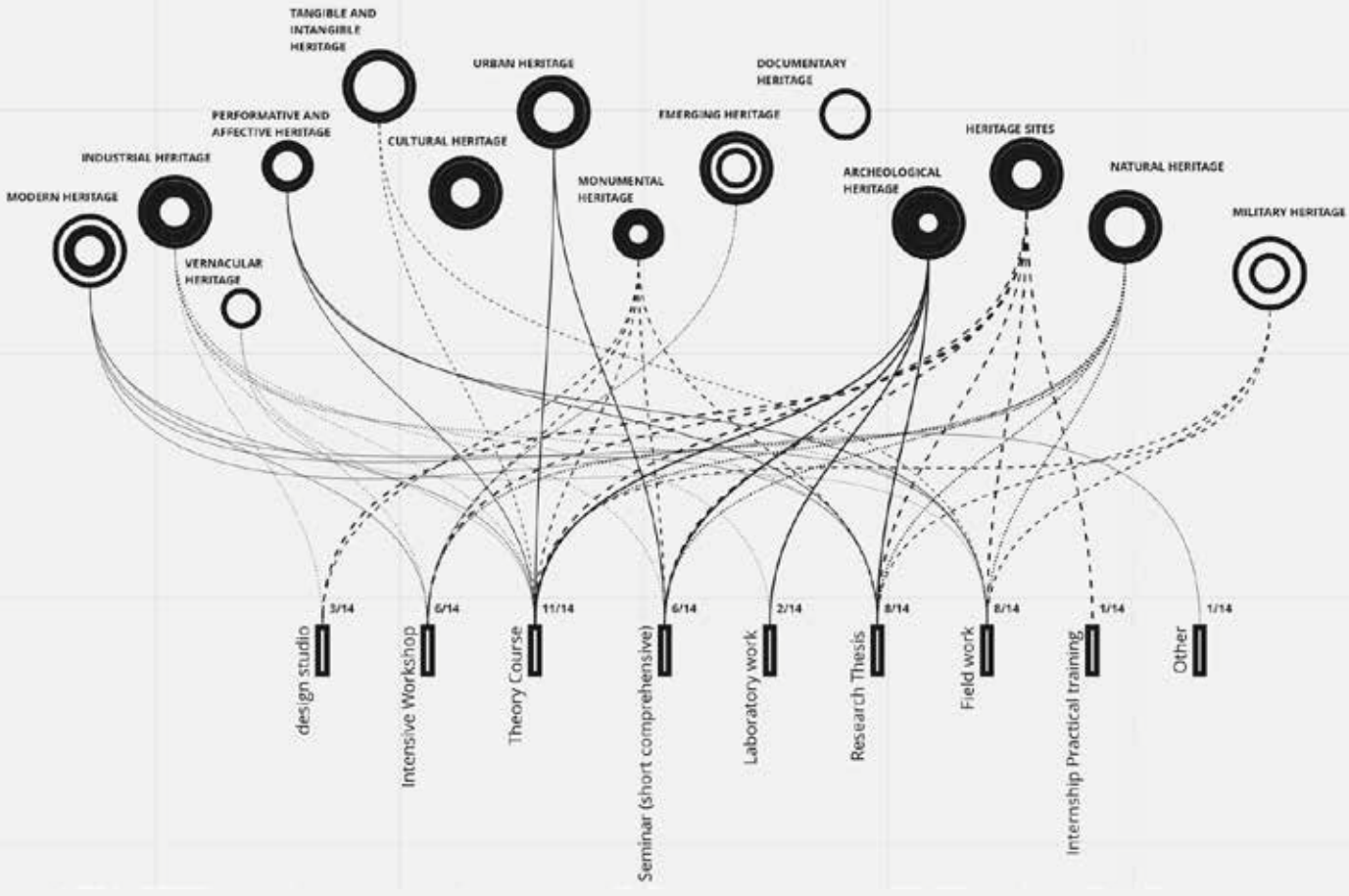
When dealing with notions in relation to sustainabililty and heritage, it is possible to conclude that:
- Due to their complexity, most suitable courses where notions should be addressed are Intensive workshops, Theory courses, Seminars, Research Thesis and Field Work.
- Laboratory Work and Practical Training are not the most adequate ways to provide environment for the understanding of notions.
- Most of the notions cover all five scales, and consequently, the multiscale approach is key for an integral understanding.



HERITAGE TYPES

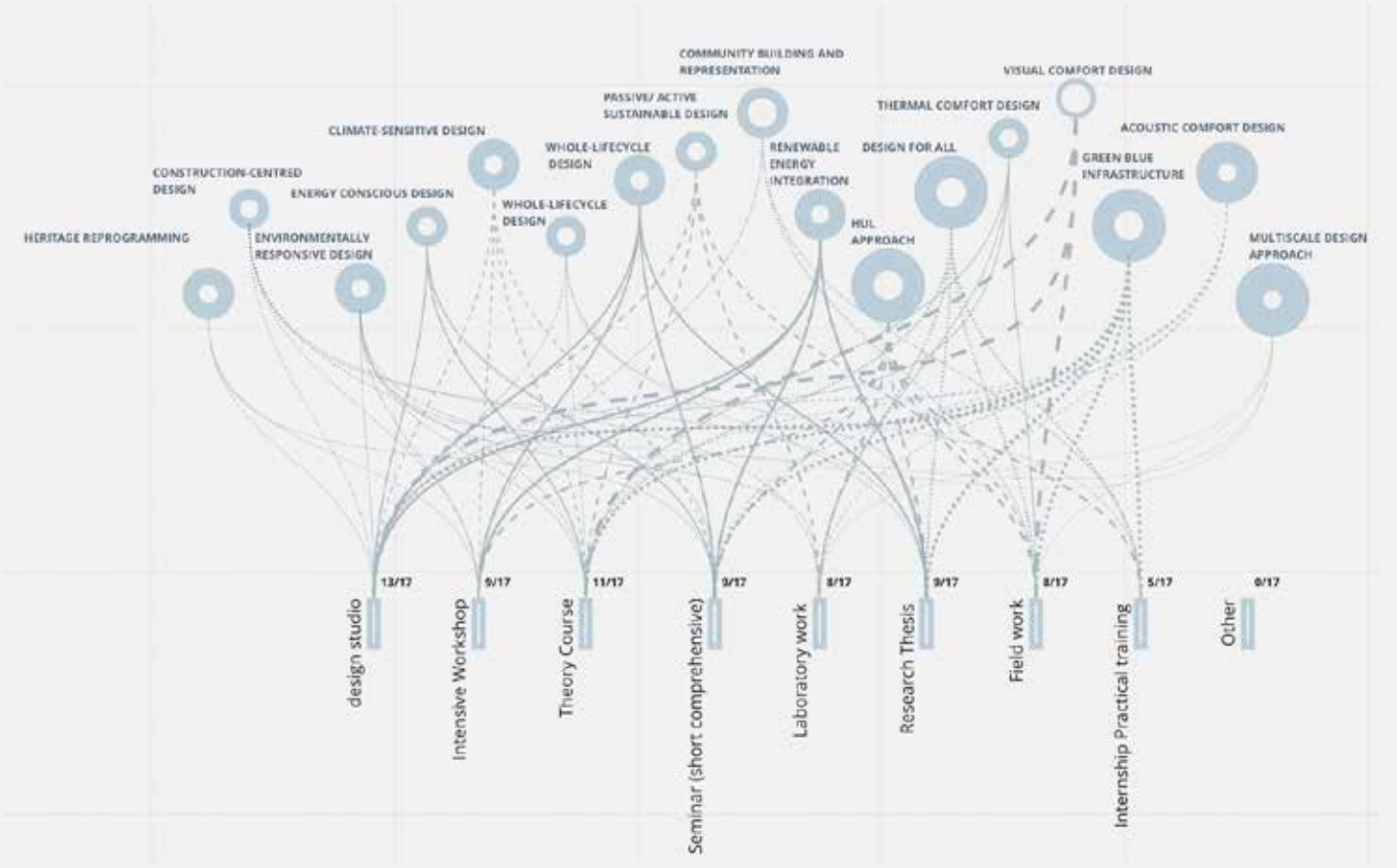
In regards to Heritage types that aquire adequate care when talking about sustainability , it is possible to conclude that:

- Theory Course and Research Thesis are the most are the most common frameworks in which different types of heritage are taught
- It is possible to perceive that not all heritage types are practiced through design studio, which needs to be reconsidered
- There is a lack of heritage types on the Construction Detailing and Interior Design Scale (XS), as well as on the Urban and Regional Planning Scale (L).



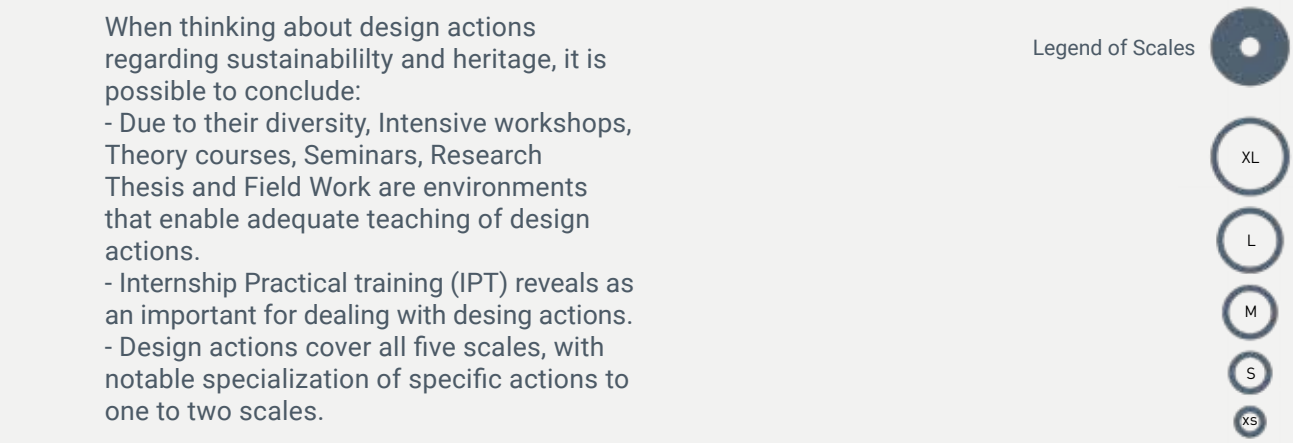
DESIGN APPROACHES

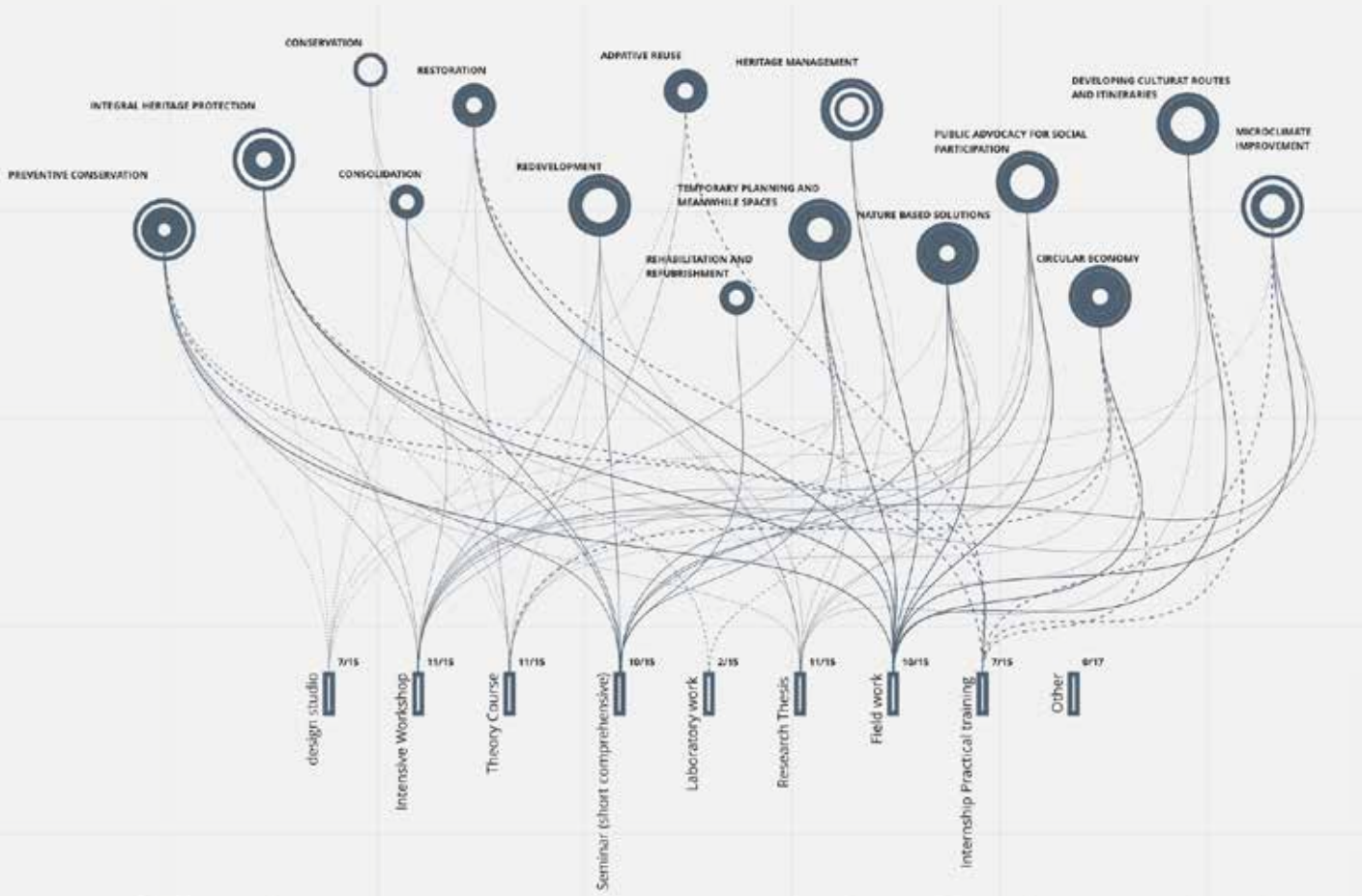
Analysis of design approaches applied when dealing with sustainabililty and heritage, reveal the following conlussions:
- Design approaches are almost equally represented in Design studio and Theory Courses, and can be practiced during Intensive Workshop, or any other recognized course type as a part of a wider course
- Most of the existing sustainable design approaches are focused on the scales of Construction Detailing and Interior Design Scale (XS) where not much heritage types are recognized, and on an Architecture: Buildings Scale (S). Accordingly, there are not many existing design approaches on Landscape Scale (L) within which the need for sustainable treatment of heritage constantly grows.



DESIGN ACTIONS

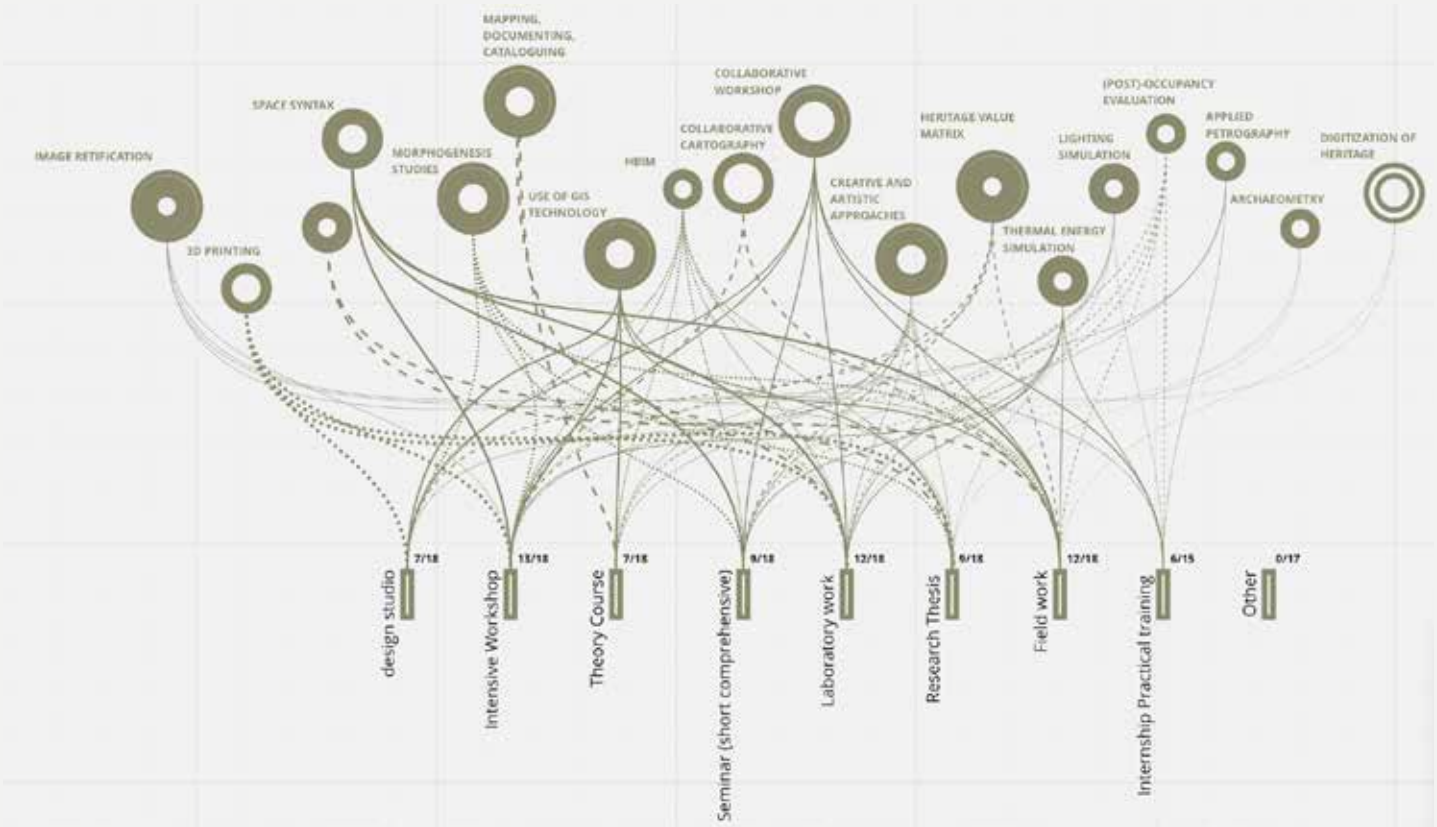
When thinking about design actions regarding sustainabililty and heritage, it is possible to conclude:
- Due to their diversity, Intensive workshops, Theory courses, Seminars, Research Thesis and Field Work are environments that enable adequate teaching of design actions.
- Internship Practical training (IPT) reveals as an important for dealing with desing actions.
- Design actions cover all five scales, with notable specialization of specific actions to one to two scales.





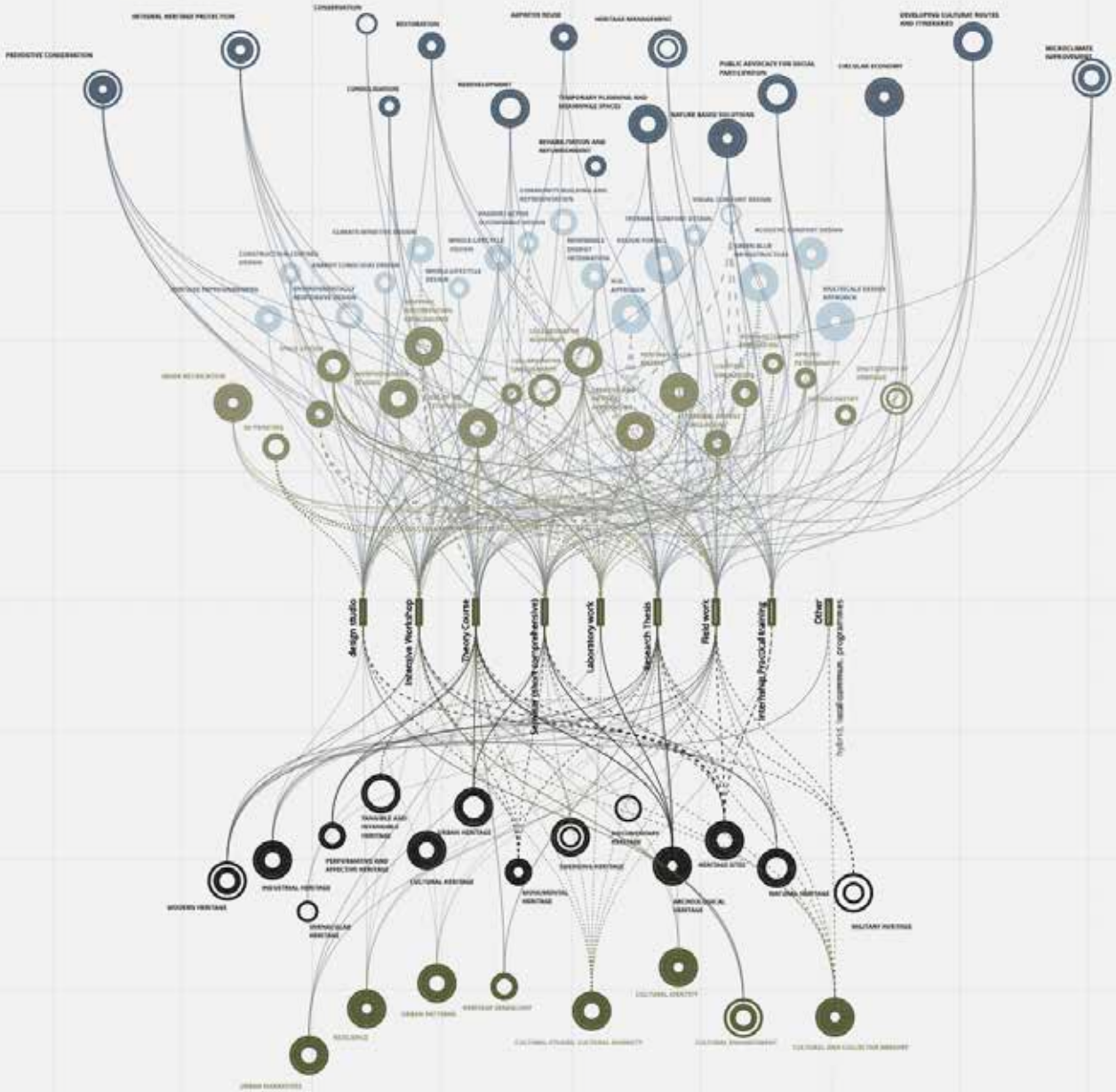
TOOLS

When thinking about tools that enable research and design in relation to sustainabililty and heritage, it is possible to conclude that:
- Due to their specific nature, for most of the tools the organization of Intensive Workshop, Laboratory and Field Work is necessary.
- The coverage of scale with different tools is notable, but it needs to be highlighted that most of the tools are developed for the scales of Construction Detailing and Interior Design Scale (XS), and Architecture: Buildings Scale (S)



SYNTHESIS

This output is the primary input for the development of "Book of courses" which will be developed by the academic institutions as a part of the project (IO5). It will be presented in the form of a pedagogical strategy that combines different terms (notions, heritage types, design actions, design approaches and tools), transcends single scale and provides innovative approaches to design and development of different course types. Therefore, the synthesis diagram provides valuable input for visual educational landscape that will be created by HERSUS partners.



PREDICTIVE CONSERVATION
CONSERVATION
RESTORATION
CONSOLIDATION
REDEVELOPMENT
NATURE BASED SOLUTIONS
PUBLIC ADVOCACY FOR SOCIAL PARTICIPATION
CIRCULAR ECONOMY
DEVELOPING CULTURAL ROUTES AND ITINERARIES
MICROCLIMATE IMPROVEMENT
design studio
Intensive Workshop
Theory Course
Seminar (short comprehensive)
Laboratory work
Research Thesis
Field work
Internship, Practical training
Other
hybrid, local commun., programmes
TANGIBLE AND INTANGIBLE HERITAGE
URBAN HERITAGE
PERFORMATIVE AND AFFECTIVE HERITAGE
CULTURAL HERITAGE
MONUMENTAL HERITAGE
SHEDDING HERITAGE
HERITAGE SITES
NATURAL HERITAGE
MILITARY HERITAGE
MODERN HERITAGE
INDUSTRIAL HERITAGE
VERNACULAR HERITAGE
ARCHAEOLOGICAL HERITAGE
CULTURAL IDENTITY
URBAN PATTERNS
HERITAGE DEMOLITION
CULTURAL ATHENS, CULTURAL MARKETS
CULTURAL ENVIRONMENT
CULTURAL DEAD COLLECTIVE MEMORY
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