OIKONET A global multidisciplinary network on housing research and learning

OIKONET

Deliverable 4.1

Learning spaces

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10	2017-02-10	Lisa Kinnear (LA SALLE)	Proof-reading

Table of Contents

1 EXECUTIVE SUMMARY

This document summarizes the pedagogical activities collaboratively designed and implemented by OIKONET partners in the three academic years encompassed by the project, from October 2013 thru September 2016. Learning spaces are the catalyst through which collaboration among higher education institutions takes place. The concept of learning space derives from the pedagogical methodology developed in the previous OIKODOMOS Virtual Campus projects. A learning space is designed by a group of teachers who agrees to carry out shared learning processes about a common theme of study. They also need to agree on the learning outcomes and on the expected skills that students will acquire as a result of participating in the learning space activities, as well as their evaluation criteria. A learning space is structured in learning activities (e.g. a well-defined stage of the learning process) and tasks (e.g. a specific assignment within a learning activity). Learning activities and tasks constitute the pedagogic framework which can later be implemented in multiple ways by the participating learners. This pedagogic methodology is strongly interwoven with the learning environment OIKODOMOS Workspaces.

The original intention of the OIKONET project was to expand the pedagogic methodology devised in the OIKODOMOS Virtual Campus (i.e., the pedagogic methods, and tools that support them) to the 17 schools and urban planning which are part of the subnetwork Pedagogical Activities. This change of size in the number of institutions participating in the collaborative design and implementation of learning activities –from eight schools in the OIKODOMOS project to fifteen in OIKONET– has required the introduction of new strategies to familiarise new partners with the philosophy of OIKODOMOS pedagogic methodology, and to facilitate the functioning of the OIKODOMOS Workspaces environment.

As part of the strategy to foster the collaboration amongst the members of the OIKONET network, a series of learning spaces have been developed during the project. The themes for each learning space were proposed by partners and discussed during the six project meetings of the subnetwork Pedagogical Activities which took place during the project. A coordinator was appointed to each learning space, and all the partners had the opportunity to collaborate in the learning design and in the implementation of the activities in line with their available resources.

In parallel to the OIKODOMOS Virtual Campus tools and methodology, other approaches have been explored in the course of the project to foster various kinds of collaboration (e.g. sharing some of the activities in existing courses, planning a joint activity, delivering video lectures) with the support of diverse media (e.g. Facebook, Twitter, Google +) following a blended-learning approach.

This report contains the summary of the work done in nine learning spaces carried out during the project. A summary of the development process and work carried out in each learning space is presented, including the implemented learning activities and tasks, examples of student works, evaluation of the results and reflections about the work done. Learning design was performed before the implementation of the learning activities using a template collaboratively produced by project partners. The completed learning plans of four the learning spaces can be found in the Appendices.

1.1 Purpose and target group

This document summarizes the collaborative pedagogical activities carried out by schools of architecture and urban planning participating in OIKONET. The work compiled in this

document helps teachers who have participated in the project to gain an overview of a variety of pedagogic approaches which can help them to critically reflect on their current learning and teaching practices. Likewise, the work compiled in this document can be useful for architectural educators who have not been involved in the project as it provides insights about the variety of learning methods and strategies which can be applied to design and implement blended-learning environments which interlink academic programs, subject-matters and learning technologies.

1.2 Contribution of partners

All members of the subnetwork Pedagogical Activities have contributed to the collaborative learning activities, in various ways: leading and coordinating a learning space, carrying out specific tasks in a learning space led by other partners, reviewing works done by students from other schools, giving video lectures and attending crits on-line and on-site. The partners involved include a total of 17 higher education institutions from 13 European countries and 2 from outside Europe (Puerto Rico, Russia).

- P1 LA SALLE- School of Architecture La Salle, Barcelona, Spain (Coordinator of WP 4 Pedagogical Activities)

- P2 ETSA-UPV- School of Architecture, Polytechnic University of Valencia, Spain

- P3 FASTU- Faculty of Architecture, Slovak Technical University, Bratislava, Slovakia

- P4 KUL- Faculty of Architecture, KU Leuven, Gent/Brussels, Belgium

- P5 BTU- Faculty of Architecture, Brandenburg Technical University, Cottbus, Germany

- P9 UTH- Department of Architecture - University of Thessaly, Volos, Greece

- P13 AAU- Department of Architecture, Design and Media Technology, University of Aalborg, Denmark

- P15 UCY- Faculty of Architecture, University of Cyprus, Cyprus

- P18 UGA- Institut d'Urbanisme de Grenoble, Université Grenoble Alpes, France

- P20 GTU- Faculty of Architecture, Gebze Technical University, Turkey

- P25 ISCTE-IUL- Department of Architecture and Urbanism, University Institute of Lisbon, Portugal

- P26 AF BELGRADE- Faculty of Architecture, University of Belgrade, Serbia

- P27 BUT- Faculty of Architecture - Bialystok University of Technology, Poland

- P29 DIT- School of Architecture, Dublin Institute of Technology, Ireland

- P30 ITU- Faculty of Architecture, İstanbul Technical University, Turkey

- P31 VSUACE-Volgograd State University of Architecture and Civil Engineering, Russia

- P33 UPPR- School of Architecture, Polytechnic University of Puerto Rico

Besides, members of other subnetworks have collaborated in some of activities of the learning spaces:

- P16 UCLAN. Grenfell-Baines Institute of Architecture, University of Central Lancashire, UK; member of the Housing Research subnetwork, participated in the learning spaces "SMALL is power".

- P7 CHALMERS. University of Chalmers, Sweden; member of the Housing Research subnetwork participated in the learning space "Urban Systems".

Besides the schools of architecture and urban planning, the Università della Svizzera italiana (P6 USI) has participated in the evaluations of the learning spaces which have been compiled in Deliverable 6.3 "Evaluation of learning activities".

Overall, a total of 9 learning spaces (2 of them with multiple editions) have been carried out during the project[1], one of them focused on the preparatory activities for the international workshop in Lisbon[2]:

- **"Introduction to Housing" (5 editions),** dedicated to introducing first year students to housing, it has been carried out in three successive editions, it was led by School of Architecture, Polytechnic University of Valencia (Carla Sentieri, coordinator).

- **"Habitat Regeneration Strategies",** focused on the redevelopment of deprived areas at various scales (housing, neighbourhood, city, metropolitan area) encompassing multiple aspects of city life: physical, social, economic and environmental. It was led by the University of Belgrade (Mirjana Devetakovic, coordinator) and by the Faculty of Architecture, Slovak University of Technology (Viera Joklova, coordinator).

- **"Threshold Matters"** focused on the study of the intersection of public and domestic spaces. It is led by KUL (Tomas Ooms, coordinator).

- **"Housing systems"** was devoted to the study of the concept of housing system, from design to construction, which has been led by LA SALLE (Leandro Madrazo and Angel Martin, coordinators).

- **"Contemporary living patterns"** dedicated to the preparatory activities to be done by participants in the Lisbon workshop, coordinated by Institut d'Urbanisme de Grenoble (Adriana Diaconu, coordinator).

- **"SMALL is power" (2 editions),** aimed at reflecting on our contemporary way of spatially organising living and more specifically the transition from the private spheres to the public realms, and vice versa. It has been led by KUL (Tomas Ooms, coordinator).

- **"Urban Housing Regeneration",** dedicated to the redevelopment of social housing in Dublin, by simulating architectural practice in actual conditions. It was led by DIT (Jim Roche, coordinator).

- **"Urban Systems",** was an introduction the basic principles of systemic thinking applied to planning of liveable cities. It was led by LA SALLE (Leandro Madrazo and Angel Martin, coordinators).

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[1] The learning space "Civic Housing", led by La Salle School of Architecture and Sostre Cívic, member of the subnetwork Community Participation, is reported in Deliverable 3.3 "Report on Participatory Actions".

[2] The preparatory activities carried out before the three international workshops are described in Deliverables 4.3

- **"Thinking Dwelling",** a learning space which brings together students and faculty from the OIKONET partner schools in a joint reflection about the forms of living in the contemporary world. It was led by LA SALLE (Leandro Madrazo, coordinator).

1.3 Relations to other activities in the project

Some of the collaborative learning spaces have helped to forge links between the three project subnetworks: Housing Research, Community Participation and Pedagogical Activities. "Civic Housing" has been the result of the collaboration between the School of Architecture La Salle and Sostre Cívic, a housing cooperative member of the subnetwork Community Participation; in the learning design and teaching activities of "Urban Systems" researchers from the University of Chalmers have collaborated with teachers from La Salle; and UCLan, member of the subnetwork Housing Research, has participated in "SMALL is power".

2 DESIGNING AND IMPLEMENTING SHARED LEARNING SPACES

2.1 OIKODOMOS Virtual Campus: predecessor of the OIKONET network

The OIKONET project is built upon the previous experience and results obtained with the development and subsequent consolidation of the OIKODOMOS Virtual Campus, a project co-financed by the Erasmus Life Learning Program, first in the Erasmus Virtual Campus program (2007-09) and later with the support of the Erasmus Accompanying measures (2010-11). The result of the two combined projects was a pedagogic methodology, based on the principles of constructivism and blended-learning, to design and implement learning activities dedicated to the study of contemporary housing in collaboration. This methodology has been compiled in the OIKODOMOS Compendium and explained in on-line tutorials.

The construction of the OIKONET started already in the previous OIKODOMOS projects. In the first OIKODOMOS project (2007-09) there were already a group of the current OIKONET partners involved:

- School of Architecture La Salle, Ramon Llull University, Barcelona, Spain (Coordinator)
- Hogeschool voor Wetenschap & Kunst, Department Architectuur Sint-Lucas, Brussels/Ghent, Belgium (currently integrated in KU Leuven)
- Institut d'Urbanisme UGA, Université Pierre Mendès, Grenoble, France (currently integrated in the Université Grenoble Alps);
- Faculty of Architecture, Slovak University of Technology, Bratislava, Slovakia;

Besides, there were two groups specialized in pedagogic design and evaluation which have continued collaborating in OIKONET:

- KataliSys Limited, Portsmouth, United Kingdom (currently Mr. Paul Riddy, consultant)
- Università della Svizzera Italiana, Lugano, Switzerland.

In the follow-up of the OIKODOMOS project (2010-11), the Faculty of Architecture, Eastern Mediterranean University, North Cyprus, joined the consortium. In addition, five schools of architecture which participated as associated partners became later on members of the OIKONET network:

- Brandenburg Technical University, Germany
- Gebze Institute of Technology, Turkey (currently Gebze Technical University)
- School of Architecture, Polytechnic University of Valencia, Spain
- VSUACE, Volgograd State University of Architecture and Civil Engineering, Russia
- ISCTE-IUL-University Institute of Lisbon, School of Technology and Architecture, Department of Architecture and Urbanism, Portugal

Overall, nine schools of architecture and urban planning which participated in the two previous OIKODOMOS projects, as partners or associated partners, became part of the OIKONET consortium. These institutions, therefore, where familiarized with the pedagogic methodology

developed and implemented in OIKODOMOS. Furthermore, eight new schools have joined the OIKONET project:

- Department of Architecture - University of Thessaly, Volos, Greece
- School of Architecture, Design and Planning, University of Aalborg, Denmark.
- Faculty of Architecture, University of Cyprus, Cyprus.
- Faculty of Architecture, University of Belgrade, Serbia
- Faculty of Architecture - Bialystok University of Technology, Poland
- School of Architecture, Dublin Institute of Technology, Ireland
- Faculty of Architecture, İstanbul Technical University, Turkey
- School of Architecture, Polytechnic University of Puerto Rico

2.2 OIKODOMOS pedagogical model

As described in the [OIKODOMOS Compendium](), the basic features of a learning space are:

- It is created by a group of teachers dedicated to a common theme of study
- Within a learning space, learning processes are structured as sequences of learning activities and tasks carried out synchronously and asynchronously by students of the participating schools
- The learning process is carried out in a blended way, carrying out the learning activities and tasks both at the schools and in the on-line learning platforms

Learning activities carried out in the OIKODOMOS Virtual Campus are based on a simple conceptual structure (Figure 2.1). A "Learning space" (named "learning workspace" in the previous OIKODOMOS projects) is the environment created by a group of teachers who decide to develop joint "Learning activities" around a particular theme over a specific period of time. The learning activities are, in turn, made up of "Tasks" (TKs) which can be either single or grouped in sequences. Sequenced tasks can be constrained to a single "Learning Activity" (LA), or they may cut across different ones. This learning structure is sufficiently flexible and neutral to support different kinds of activities -- from the collaborative development of a project to course assignments - which can be carried out by students working individually or in groups, as well as by schools working independently or in collaboration with others.
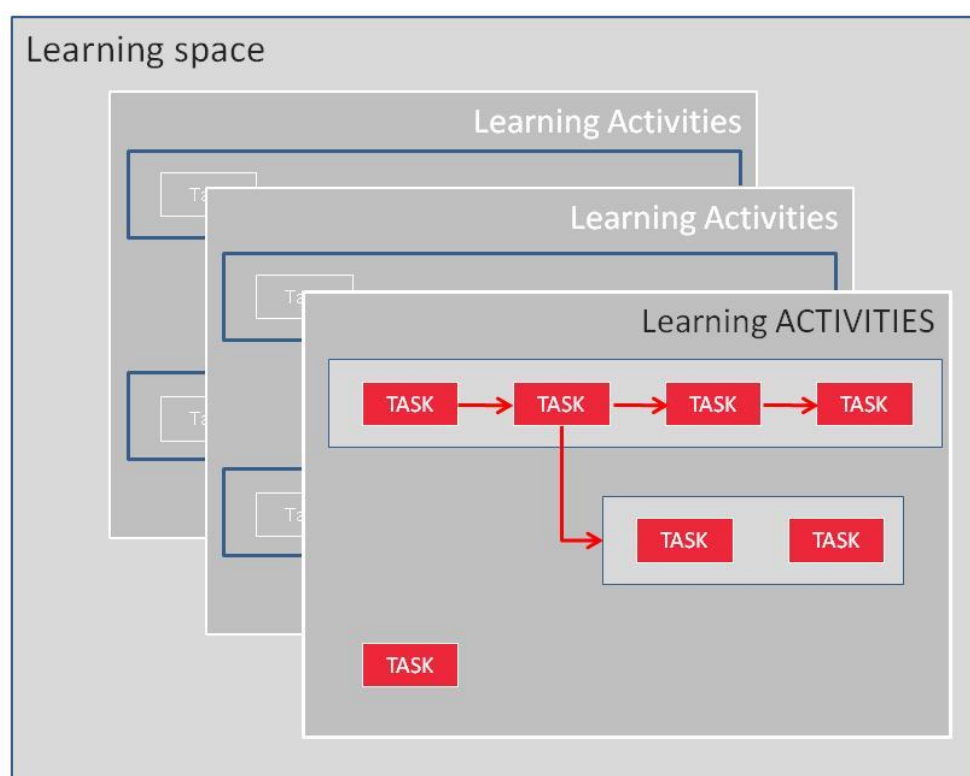
Figure 2.1. Structure of learning activities and tasks

The network of tasks gives rise to a flow of inputs and outputs (Figure 2.2). In this way, learning can be understood as a process through which some inputs - study themes, assignments, references and readings - give rise to associated outputs (i.e., student works, comments on others' works, peer and teacher evaluations). Thus, the results produced in one task (e.g., an analysis of precedents) can become an input for another task (e.g., a design studio) in another institution. Hence, the timing of the learning activities is not determined exclusively by the courses or academic programs of each university but by the sequencing of the on-site and on-line activities.

The learning activities have an existence of their own: they become more or less active as more tasks are defined and works are submitted. They move from the virtual to the physical, depending on the sequence of the courses and workshops which are set up; and finally, they come to an end as learners complete their inputs to the learning process.
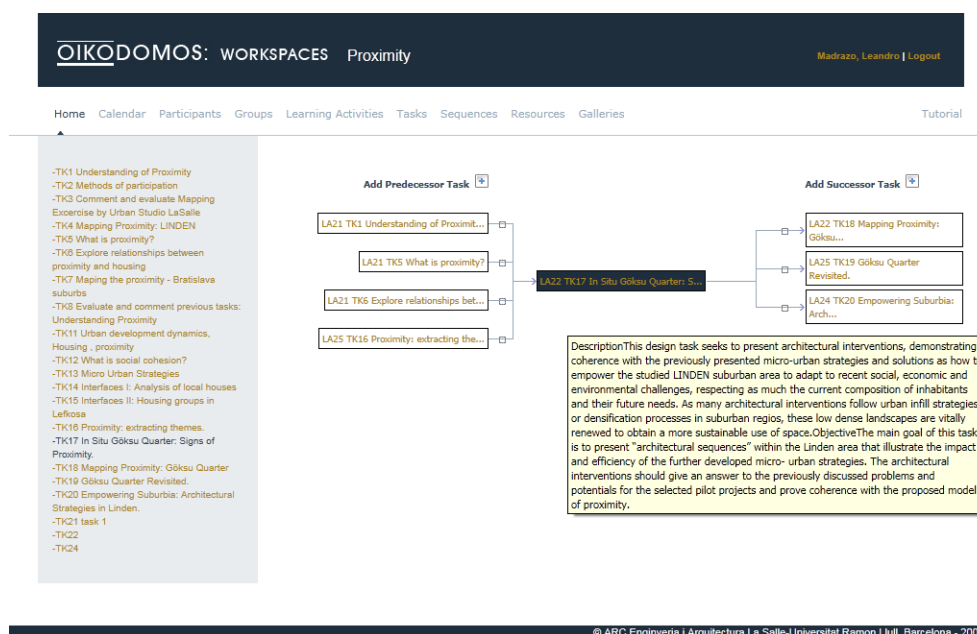
Figure 2.2. Structure of learning activities and tasks

The stages in this open-ended learning process might coincide –or not– with an academic program of a participating institution (e.g., semester, quarter). The management of the learning activities executed along this process, collaboratively, with the participation of learners from various institutions, represents a major challenge for teachers. In this context, learning is an open-ended process which can start at a given point and later expanded throughout time and space in an unforeseeable manner. Rather than learning plans, teachers are expected to set up learning strategies and respond to network activity in a timely manner.

2.2.1 Learning design process

The process of creating the network of learning activities starts when a group of teachers agree on a common theme (the name given to the learning space), which they will develop for a given period of time, typically a semester or an academic year. The teachers then determine the ways in which they will address the theme within their respective courses (seminars or design studios) at their institution. Once the theme has been agreed, different forms of collaboration might be established in order to create a network of shared activities, which can go from punctual collaborations (e.g. an evaluation of the work done at other schools, a video lecture) to joint activities (e.g. carrying out the same project in the design studio).

The activities which are included in a learning space may embrace not only the individual courses at each participating school but also joint workshops where participating students and teachers meet face-to-face during a period of time, typically a week, to carry out specific work on the theme of the learning space. The joint workshop is, therefore, one more learning activity which is linked to the other activities of the learning space. Some of those activities can help to prepare students for the work that will be done in the workshop, and are done, therefore, previously to the workshop. After the workshop, the collaborative activities can continue on a distant basis in the digital platform as well as in the courses and seminars at each institution. This approach has been successfully implemented in the OIKODOMOS projects, in four workshops in Ghent (2008), Grenoble (2009), Bratislava (2009), Istanbul (2011), and also in the Lisbon workshop carried out in 2014 as part of the OIKONET project (see Deliverable 4.3 International Workshops).

2.3 Expanding the OIKODOMOS Virtual Campus

A major challenge for the OIKONET project has been to introduce the new partners to the pedagogical methodology developed and implemented in the previous OIKODOMOS Virtual Campus and to the tools associated to it, namely the OIKODOMOS Workspaces, Case Repository and Oikopedia environments. Besides, it has been necessary to come up with working strategies that enable the collaboration of sixteen schools of architecture and urban planning in the design and implementation of the shared learning activities.

Right from the start of the project, partners received documents that summarize the pedagogic methodology of the OIKODOMOS Virtual Campus, and received support to access to the on-line resources available at www.oikodomos.org (compendium, presentations, tutorials) as well as one exemplar of the book "OIKODOMOS Innovating Housing Learning", which summarizes the work of the previous project.

To introduce new partners to the on-line platform OIKODOMOS Workspaces, during the first months of the project a series of tutorials were given to partners via the Adobe Connect platform. Since then, the developers of the platform, the research group ARC Engineering and Architecture La Salle, have been providing constant support and assistance to the partners who needed so. As part of this strategy of introducing partners to the Workspaces environment, the first learning space –**Civic Housing**– was implemented right from the beginning of the project, during the fall semester 2013/14. Later on, as the project developed, other ways to introduce partners to the methodology embedded in the OIKODOMOS Workspaces were explored, among them: an experienced partner mentoring a new partner, teleconferences explaining the experience gained in a learning space, guiding partners in the process to re-use and enhanced existing structures of learning activities and tasks.

2.4 Implementing new learning spaces

Following the first meeting of the subnetwork Pedagogical Activities held in Barcelona on January 29, 2014, different themes to create learning spaces for the OIKONET project were discussed and then implemented in the following months. It was decided to create three learning spaces:

- **"Introduction to Housing"** dedicated to introduce first year students to housing, led by School of Architecture, Polytechnic University of Valencia (Carla Sentieri, coordinator).

- **"Contemporary living patterns"** dedicated to the preparatory activities to be done by participants in the Lisbon workshop, coordinated by Institut d'Urbanisme de Grenoble (Adriana Diaconu, coordinator).

- **"Threshold Matters"** focused ing on the study of the intersection of public and domestic spaces, which is led by KU Leuven (Tomas Ooms, coordinator).

These three learning spaces started to be developed immediately after the meeting, and a first version of the learning structure and objectives were completed in the spring semester 2013/14. Two of them –"Introduction to Housing", "Threshold Matters" – were partially implemented as well, while "Contemporary living patterns" was implemented in the two months prior to the Lisbon Workshop (May/June 2014).

A fourth learning space, with the name "Habitat Regeneration Strategies", was proposed during the second meeting of the subnetwork in Lisbon, July 2014. The topic was proposed by the University of Belgrade, which was conducting some pedagogical activities on this issue.

The fifth learning space, "Housing Systems", was proposed by the School of Architecture La Salle, being linked to the OIKONET elective course carried out in the fall semester of 2014/15.

During the second meeting of the subnetwork in Lisbon, it was decided to improve the process of designing the learning spaces. With this purpose, a template would be used to describe the learning plan of the learning space, before this would come into place. This learning plan includes the theme, objectives, participants and their roles, learning activities and tasks, and the expected learning outcomes, among other. The learning plans of the learning spaces – except "Contemporary living patterns", which was already completed– can be found in the Appendices.

The collaborations that took place around the learning spaces implemented at the early stage of the project lifetime gave rise to a second wave of learning spaces which explored innovative paths: deepening the integration of diverse courses in a joint learning structure (e.g., "Introduction to Housing"); creating spaces of collaboration with other subnetworks (e.g. "SMALL is power", "Urban Systems"); expanding the activity of a local course into the space of the network (e.g. "Urban Housing Regeneration"); and exploring other blended-learning approaches as an alternative to those supported by OIKODOMOS Workspaces (e.g. "SMALL is power"). Finally, a new learning space was created - "Thinking Dwelling"- to explore other ways of collaboration different to the pedagogic model set up in OIKODOMOS.

The following chapters in this report describe the work carried out in the learning spaces. The reported work focuses on the consolidated phase of the development of the learning spaces, once the learning structure and the participating partners were established. The comparison between the results reported and the original plan laid out in the templates helps to identify the value of the outcomes as well as the difficulties found in the implementation.

3 INTRODUCTION TO HOUSING

by Carla Sentieri, School of Architecture of Valencia, Spain

3.1 Introduction

This learning space has evolved constantly throughout the OIKONET project. It began in the spring semester (February to June) of the 2013-14 academic year and was then re-edited in two subsequent academic years, in the spring and winter semesters. A total of five editions of the learning space have been carried out in the three years of the project.

At the first meeting of the Pedagogical Activities sub-network held in Barcelona in January 2014, participants agreed to create a learning space that would introduce students to the basics of housing design. The learning activities would overcome boundaries between face-to-face and on-line learning by fostering a blended learning approach. Three schools agreed to participate in designing the pedagogical structure of the "Introduction to housing" learning space: the School of Architecture at the Polytechnic University of Valencia (ETSA-UPV) (coordinator), the University of Cyprus (UCY), and the Faculty of Architecture of Belgrade University (AF BELGRADE). These three schools worked together during the first edition of the learning space which took place in the 2013-14 spring semester.

During the two semesters of the academic year 2014-15, ETSA-UPV and UCY kept the learning space active. In the 2015-16 winter semester, Gebze Technical University (GTU) and Istanbul Technical University (ITU) joined the activities.

Finally, the last edition took place in the spring semester of 2016 with ETSA-UPV, UCY, ITU and ISCTE-IUL taking part.

The activities and tasks in this learning space were designed jointly by scholars from AF-BELGRADE, UCY, ETSA-UPV, GTU, ITU and ISCTE-IUL. This collaboration enabled the participating institutions to exchange academic programmes and teaching methods.

3.2 Topic

Houses are undoubtedly one of the most important vehicles for exploring the social and experiential dimensions of architecture. Understanding the way in which a house, as a spatial form, relates to society, culture and individuality against the backdrop of contemporary culture, is of important concern to teachers of architecture around the world.

The original purpose of this learning space was to introduce first-year students to some of the basics of architecture by exposing them to the problem of representing (analysing, designing) a house.

As the learning space developed, its original target group changed to involve second- and third-year students in the understanding of some fundamental principles of architecture by means of both the activities of analysis and synthesis.

Learning activities were organised into different areas: analysis of precedents, concepts of home and house, analysis of user profiles, context analysis and housing design. During the learning tasks students were expected to demonstrate their knowledge of the relevant theoretical background, to show coherence in the design development process, and to use different techniques of representation appropriately (spoken, written and graphic; digital and analogue) in order to communicate ideas (concepts and design proposals) effectively. They

were also expected to develop their ability to work in teams and be critical of their own work and that of others.

3.3 Implemented learning activities

The first challenge facing the design of this learning space in the spring semester of 2013-14, was to draw up a common plan to reflect the teaching objectives of the participating institutions. During the first semester of this joint project, the main task was to bring the curricula of the participating schools together in a shared learning program. However, this proved to be impossible due to the little time available. Therefore, from February 2014 thru June 2014, ETSA-UPV transposed the programme of their introductory course onto a structure of activities and tasks based on the pedagogic model developed during the OIKODOMOS programme carried out previously. The resulting learning structure was implemented using OIKODOMOS Workspaces, the on-line learning environment developed during the previous program. Then, two other schools – UCY and AF BELGRADE – incorporated these learning activities and tasks into their own programs. They also added new activities to the structure in conjunction with ETSA-UPV.

During the 2014 winter semester (September to December), the main goal was to help students and faculty members of the participating institutions to work together in the OIKODOMOS Workspaces. UCY and ETSA-UPV students jointly carried out one task in Workspaces and UCY students commented on their work in the on-line environment.

Finally, during the spring semester of 2015, a new learning structure was created by UCY and ETSA-UPV with the purpose of making the collaboration in the learning activities easier for students and tutors. Learning activities and tasks were jointly designed and a common schedule was agreed upon. Webinars by tutors were also planned at different phases. Students from both schools uploaded their work to Workspaces where they were commented on by students and tutors. The students' work became a learning resource for the students of the second school.

The joint learning structure developed in the previous program formed the basis of the following edition, in the 2015-16 academic year. Two schools, GTU and ITU, joined the learning space, resulting in new tasks being added to the learning program. In addition, the participation of students and teachers became more intensive.

Finally, ETSA-UPV, UCY, ITU and ISCTE-IUL worked together during the last semester on a variety of tasks and the development of their design studio course. Because the learning activities featured a clear and generic sequence of tasks to develop a design studio work, it was easy for them to align their courses to the shared learning structure. As in previous editions, students from the schools uploaded their work to Workspaces to receive comments by students and tutors from the other schools.

In the following subsections, the activities and task in each one of the five semesters in which the learning space was active are summarized:

- 2013-14 spring semester
- 2014-15 winter and spring semesters
- 2015-16 winter semester
- 2015-16 spring semester

3.3.1 2013-14 spring semester

The work in the first semester consisted of sharing the contents of the ETSA-UPV, UCY and AF BELGRADE courses and integrating them into the learning space, identifying the elements of each course that might be useful for the students of other schools. The outcome was a shared learning structure for second- and third-year students which was implemented during the semester. The learning activities and tasks are listed in the following table. (Table 1).

Table 3.1. Tasks implemented by each school during 2013-14 spring semester. ETSA-UPV (grey), UCY (yellow), AF-BELGRADE (orange)

Learning activity	Task
Recognizing space	Task 1 What is a house?
	Task 2 The objects
	Task 3 The room
	Task 4 The house
	Task 8 Collective housing
	Task 10 A human and the objects in a collective space
Interpretation of a text	Task 5 Lecture and interpretation
	Task 6 Model of the place
	Task 7 Construction of an idea
Analysis of precedents	Task 9 Analysis of courtyard houses
	Task 11 Analysis of residential architecture: single-house
User profile analysis	Task 12 Analysis of potential users
Context analysis	Task 13 Visual mapping of context
New design proposals	Task 14 Initial design proposals
	Task 15 Courtyard house project

The implementation of the learning plan showed that the tasks were not shared by the schools and also revealed which tasks were of most interest to each school (Figure 1).
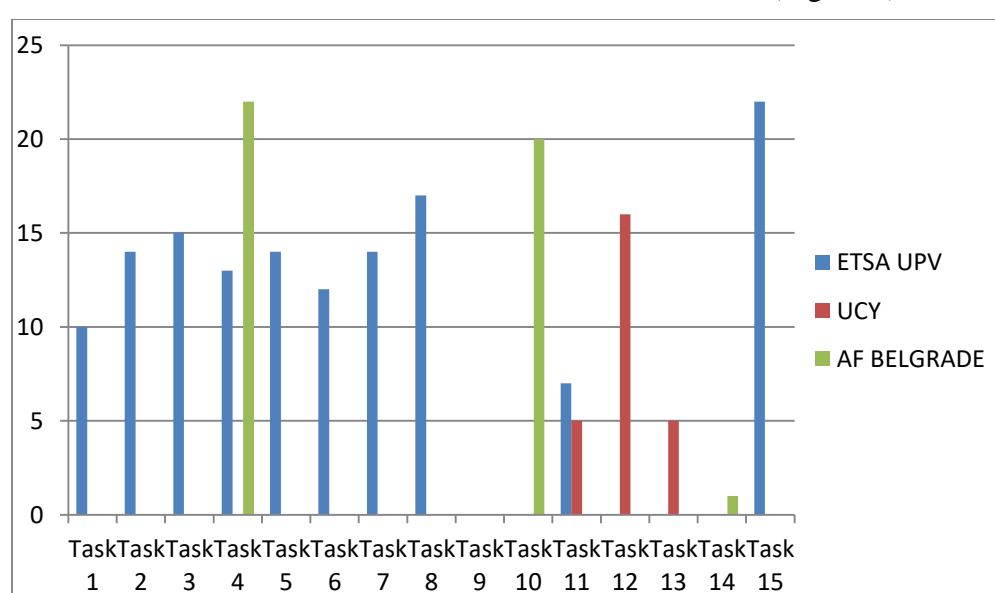

Figure 3.1. Number of items of work uploaded during 2013-14 spring semester

As a result of this first experience, the two schools that decided to continue working on the learning space during the 2014-15 winter semester, ETSA-UPV and UCY, opted to review the tasks. The number of tasks was subsequently reduced and new ones were introduced. (Table 2).

Table 3.2. Tasks implemented during 2014-15 winter and spring semesters. ETSA-UPV (grey), UCY (yellow)

Learning activity	Task
Recognizing space	Task 1 What is a house?
	Task 11 Analysis of residential architecture: single-house
	Task 16 Analysis of residential architecture: shared-housing
User profile analysis	Task 12 Analysis of potential users
Context analysis	Task 13 Visual mapping of context
New design proposals	Task 14 Initial design proposals
	Task 17 Collective housing project

This time, ETSA-UPV and UCY worked more closely together and achieved more integrated planning in which most of the tasks could be done jointly by second-year (ETSA-UPV) and third-year (UCY) students according to a common timetable.

This learning structure was maintained during the two semesters of the 2014-15 academic year.

3.3.2 2014-15 winter and spring semesters

The activities carried out during the two 2014-15 semesters are described in detail below.

- LA: RECOGNIZING SPACE. Architects create spaces so it is logical for the first step in an introduction to architecture to be about learning how to perceive and represent space. The purpose of this activity is to learn how to recognize the places we inhabit.

> **- TK: What is a house?**
>
> The aim of this task is to distinguish between the concepts of house and home: what makes a house important for us and why. Students are expected to address issues such as what makes them feel good at a home? These reflections are summarized in an A3 document combining different materials and techniques (texts, drawings, photographs).
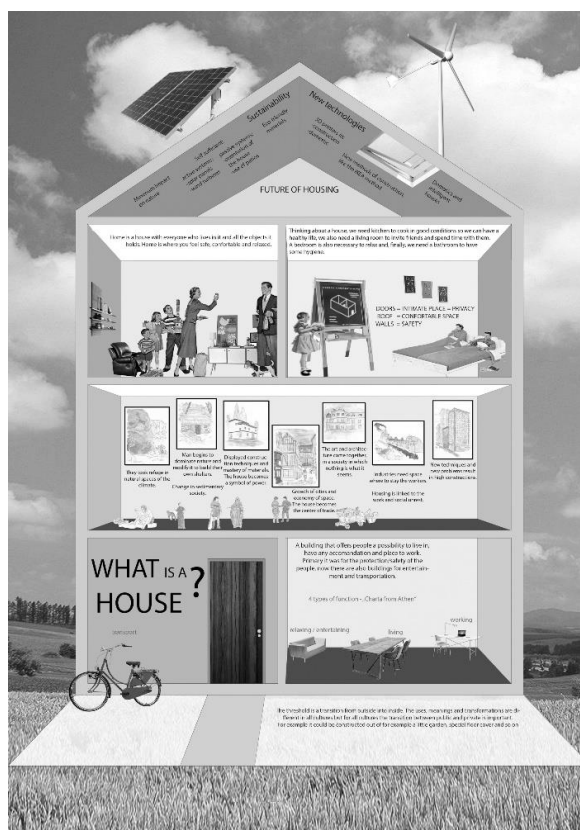
Figure 3.2. "What is a house?". Task submitted by students Miguel Beltrán, Miriam Feshe, and Celia Vanaclocha (ETSA-UPV)

This task was carried out by ETSA-UPV during the 2014 winter semester. The results were commented on by professors from other schools and students from the University of Cyprus. They asked students questions, making them think more about the issues they pinpointed.

Here is an example of a comment. Professor Tomas Ooms of KU Leaven to Nieves Bonmati.

Hi

First of all, nice that you use sketches and combine them with text. This works very well in the presentation. You approach the house from the viewpoint of functionality with reference to adaptability etc. But what I think is an important element is the personalisation or appropriation of space: the user can decide how the space is utilized. I think this is an essential quality of architecture. The same goes for the relation between the inside and the outside, the permeability.

The question that you didn't answer is: where do you feel good in the house. Maybe this is the question of when a house becomes a home... Have you considered this? I guess that the concept of appropriation and permeability are essential in this.

Here is Nieves Bonmati's answer to Tomas Ooms:

Hi Tomas,

Thank you for your comment.

For us the most comfortable space in the house is the bedroom, because it is the place where people can look for themselves (sic). It is their own world, where they can make changes and feel good. We thought about this question but we didn't reflect on it well.

Another example of a comment. Student Maria Theodoulou from the University of Cyprus:

Hi,

I have to say that I like your point of view, it is true that a building is nothing without people so home is a combination of activities that people do with their needs and their feelings. So a house has to be able to embody these by changing and transforming the inside and the outside of it!

- LA: PRECEDENT ANALYSIS. The purpose of this activity is to learn from precedents, identify solutions provided by previous projects and transform them into new ones.

- TK: Analysis of residential architecture. Analysis of examples of international residential architecture (context, users and social, economic and environmental variables).
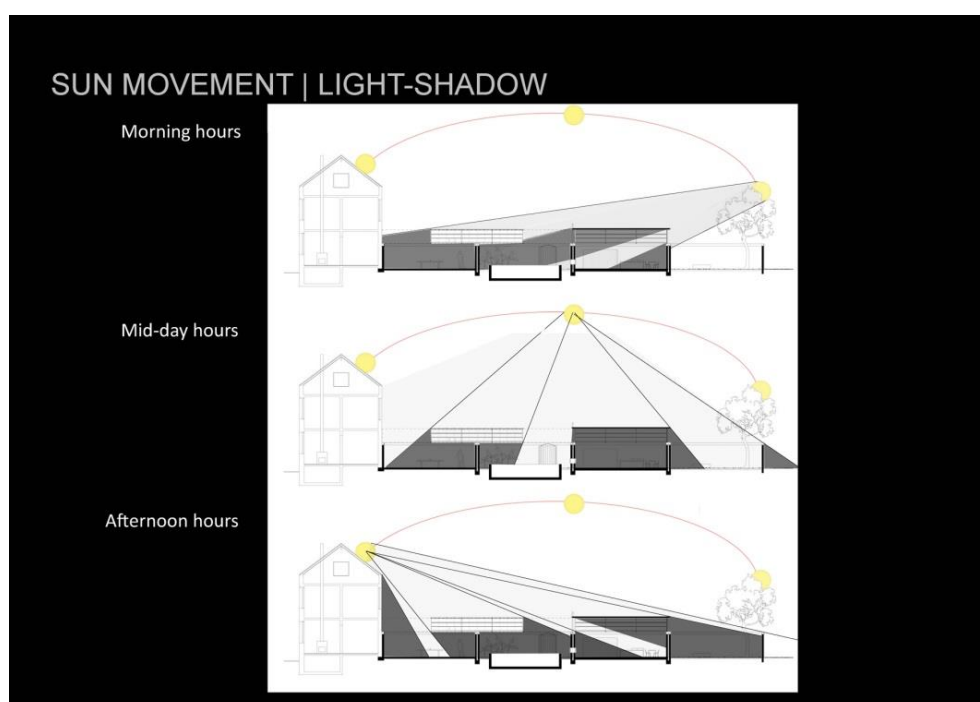

Figure 3.3. "Analysis of residential architecture" task submitted by students Kyrkos Giannakopoulos, Katerina Paulov, Andrea Stavrinidou (UCY)

This task was carried out by University of Cyprus students during the 2015 spring semester. The results were commented on by professors from other schools and ETSA-UPV students. They asked students questions that made them think more about the issues they had identified.

Example of a comment by ETSA-UPV professor, Carla Sentieri (Valencia):

Hi all of you,

I think you may be interested in these two projects:

- *House in Buñola _Francisco Cifuentes because the use of the material is very interesting*

http://tectonicablog.com/?p=25607

- *Kingo House_Utzon because it has the same organization but on a different scale.*

http://www.e-architect.co.uk/denmark/kingo-houses

I recommend you look for books with more information.

Good work!

And a comment by student María Reyes:

Tur, Maria Reyes on [06/03/2015]:

Hello, I found a page explaining this project and I think it will be interesting to you.

http://www.moma.org/interactives/exhibitions/1999/un-privatehouse

- LA: USER PROFILE ANALYSIS. Houses are a complex expression of the social and individual worlds of their occupants, in which social structure, the patterns and conventions of everyday life seem to be closely related to the idiosyncratic and often chaotic circumstances of people's everyday lives. Students are encouraged to understand that the design of a "home" must address the practicalities of everyday living whilst responding to the owner's idiosyncrasies, personality and dreams. It is therefore important to be able to analyse, understand and address the profiles of possible users.

- TK: Analysis of potential users

Students were randomly given existing user profiles and asked to analyse them (daily routines, hobbies, personalities, spatial patterns). The results were submitted in the form of photos and diagrams.

Figure 3.4. "Analysis of potential users" task submitted by student Anastasis Skarparis (UCY)

This task was carried out by ETSA-UPV and UCY during the 2015 spring semester. The outcomes of this task were commented on by a professor from Valencia. The teacher revised this exercise/task via the on-line platform and gave references from other learning spaces.

This is an example of a comment, by Professor Carla Sentieri of ETSA-UPV (Valencia):

Hi Sandra,

I recommend you look at the exercise presented in Workspaces: Housing Systems (Task 7) by Doyle Deirdre. There is an example that can be useful for you.

- LA: CONTEXT ANALYSIS. The aim of this learning activity is to introduce context analysis with a view to detecting differences between ethnic, cultural and social categories including gender divisions and generational differences. Homes often reflect differences in environmental conditions (climate, light, air, topography) in different ways in different cultures and geographical areas. Such differences can be seen in the way domestic space is designed and organized. This activity encourages students to understand the ways in which domestic space is site/context specific.

> **TK: Visual mapping of context**. Students are asked to use visual ethnography methods to respond to specific sites or contexts provided by their tutors, and then to represent context-specific (cultural, social, and environmental) characteristics in the form of digital and printed photo essays.
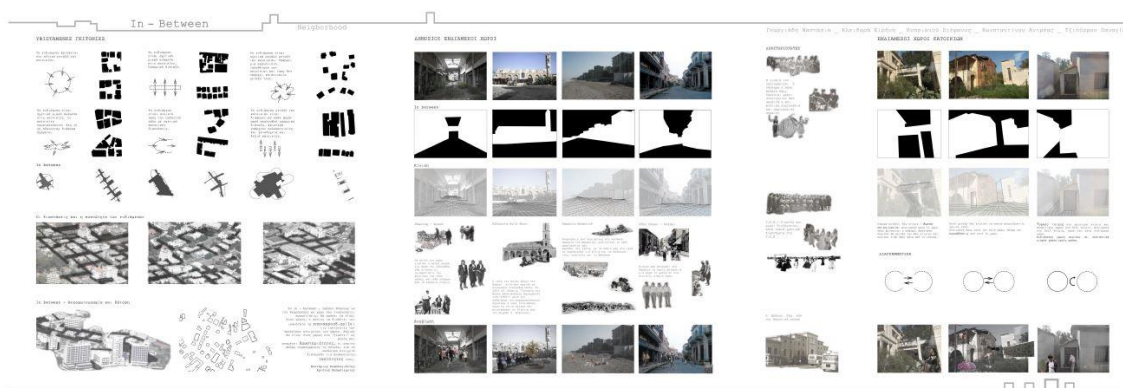

Figure 3.5. "Visual mapping of context" task submitted by student Panayiota Tziourrou (UCY)

This task was carried out ETSA-UPV and UCY during the 2015 spring semester. The outcomes of this task were commented on by professors and students from these schools.

This is an example of comments made about Celia Castillo's work by ETSA-UPV (Valencia):

(Carla Sentieri) Hi Celia,

The information is good, but there is a lot of information. For the next task try to separate the different themes and it will be easier to read it.

Good work!

(Andreas Panayiotou) Hola Celia,

Indeed you have good information, but in my opinion it should be understandable without reading. For example you could have better memoranda to read your map in an easier way without having passages. It is better to show more processed images and sketches rather than a good text. :)

(Celia Castillo)

Thanks for all your words, they are so useful. Next time I'll try to write less and draw more. In this way, information will be clearer and more attractive!

- LA: AT HOME. NEW DESIGN PROPOSALS. Taking into consideration the work done during the above tasks, students were asked to design a "home" in a specific context that addresses local conditions and culture, the practicalities of everyday living and the users' profile, personality and dreams. Understanding the context and the relationship between the spatial structure of a domestic space and the social life of the inhabitants is one of the main challenges in this learning activity. We were interested in the ways the home, in the sense of a spatial form, relates to social and cultural considerations and the individual, in a context of the increasingly divided, complex and differentiated experiences of contemporary life.

- TK: House design proposals. Initial concepts. Students were asked to develop basic ideas for new domestic spaces in a given context and user profile.

This task was under way in the 2015 spring semester and there are some results but no comments yet.
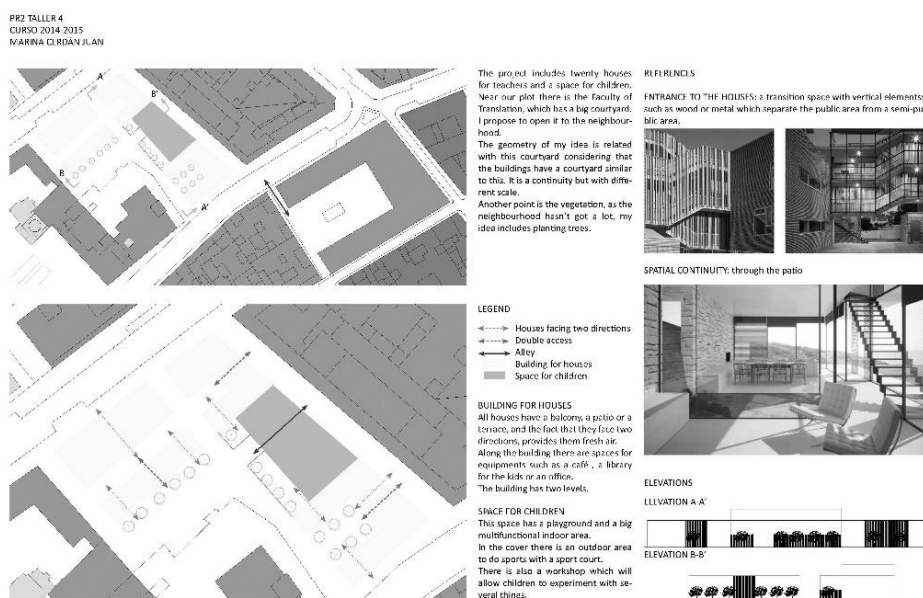

Figure 3.6. "House design proposals. Initial concepts" task submitted by student Marina Cerdan (ETSA-UPV)

- TK: Collective housing project. Students were asked to develop new design proposals for collective housing in particular contexts and user profiles.
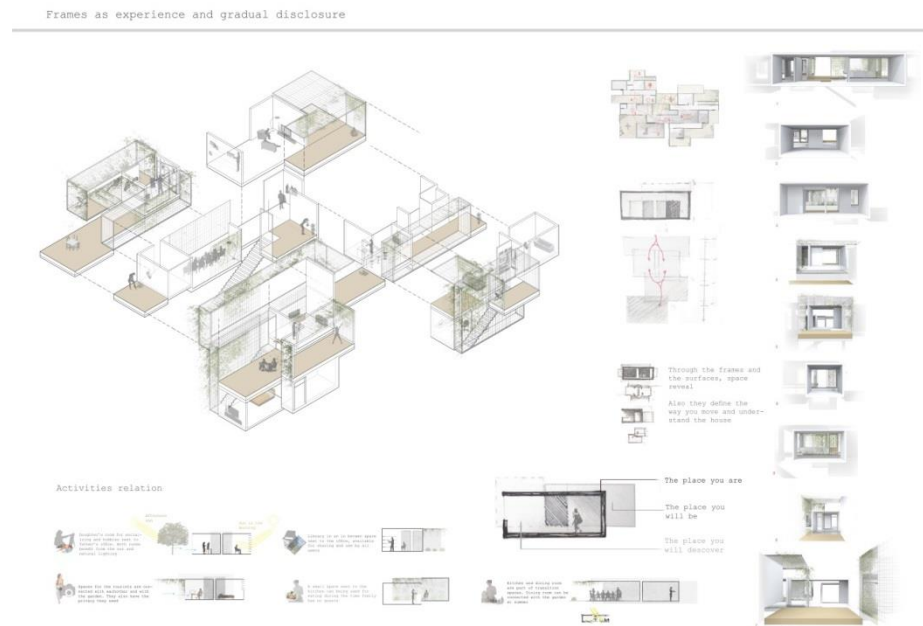
Figure 3.7. "Collective housing project" task submitted by student Irene Klidara (UCY)

3.3.3 2015-16 winter semester

The collaborative structure created during the 2014-15 academic year made it relatively easy to incorporate new schools. The information provided by the platform together with the results of the tasks uploaded in previous phases, showed the results and the quality of the course to motivate new schools to participate in it. During the winter semester, because of the participation of two new schools, Gebze Technical University (GTU) and Istanbul Technical University (ITU), new tasks were introduced in addition to those of the 2014-15 year. The leader of the learning space reviewed the tasks and the objectives to ensure the consistency of the process.

The following task was created as part of the learning activity "Recognizing space":

- TK: Experiencing the house

Students must describe their experience of their house by recognizing and observing their environment and usual activities. They focused on the experience of one day: a snapshot of a typical day during the week or at the weekend in an individual's life, centred on their home.

Aim of the assignment: Understand the role of the home in a typical 24-hour period.

Method: Make a 3-minute movie about it, in groups.

Explanation: Each student presented their 24-hour period to the group. One narrative was selected and the group made that movie

.

Figure 3.8. "Experiencing the house" task submitted by ITU students

The following tasks were created as part of learning activity "Context Analysis":

- TK: First impressions

The students visit their workplace and record their first impressions.

Explanation: Students are asked to present their first impressions of the project area individually using the concepts involved in creating an A3 poster.
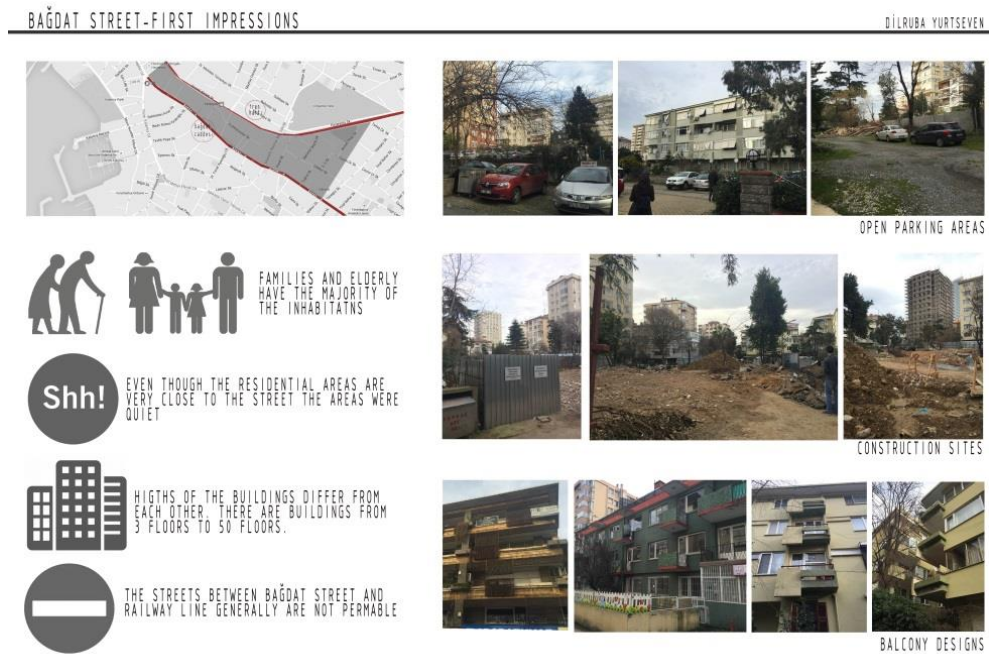
Figure 3.9. "First impressions" task submitted by student Dilruba Yurtseven (ITU)

The tasks carried out by ITU, ETSA-UPV and ISCTE-IUL were commented on by professors and students from these schools.

-TK: Background of the area

Students analysed the potential development and background of the area and presented a document with their conclusions.

Explanation: Students were asked to work in groups and write a report about the geographical, historical and architectural aspects of the project neighbourhood in Powerpoint format.
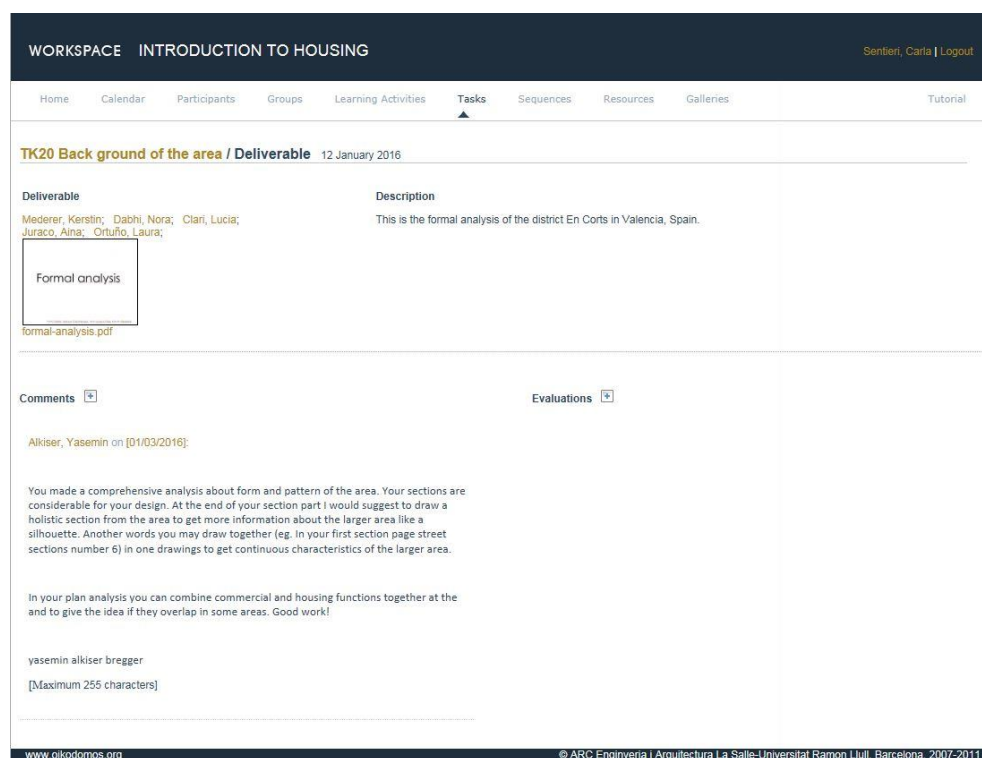
Figure 3.10. "Background of the area" task submitted by ETSA-UPV student

with comment from ITU teacher

The new tasks are more detailed. This helps develop the activity in more specific ways and shows that each activity can be qualified. As a result of this collaboration, a shared learning structure for second- and third-year students was created and implemented during the 2015-16 winter and spring semesters. The learning activities and tasks are described in Table 3.3.

Table 3.3. Tasks carried out in 2015-16 spring and winter semesters. ETSA-UPV (grey) UCY (yellow), ITU (blue), GTU (green)

Learning activity	Task
Recognizing space	Task 1 What is a house?
	Task 18 Experiencing the house
Precedent analysis	Task 11 Analysis of residential architecture: single-house
	Task 16 Analysis of residential architecture: shared-housing
User profile analysis	Task 12 Analysis of potential users
Context analysis	Task 13 Visual mapping of context
	Task 19 First impressions
	Task 20 Background of the area
New design proposals	Task 14 Initial design proposals
	Task 17 Collective Housing project

Participation in the workspace increased considerably and all the tasks received comments.

3.3.4 2015-16 spring semester

Finally, ETSA-UPV, UCY, ITU and ISCTE-IUL took part in the 2016 spring semester.

The activities carried out during the two 2015-16 semesters have been described in this paper, but some results of the last semester will be presented as findings of the program developed throughout the project.

- LA: RECOGNIZING SPACE

The purpose of this activity is to learn how to recognize the places we inhabit.
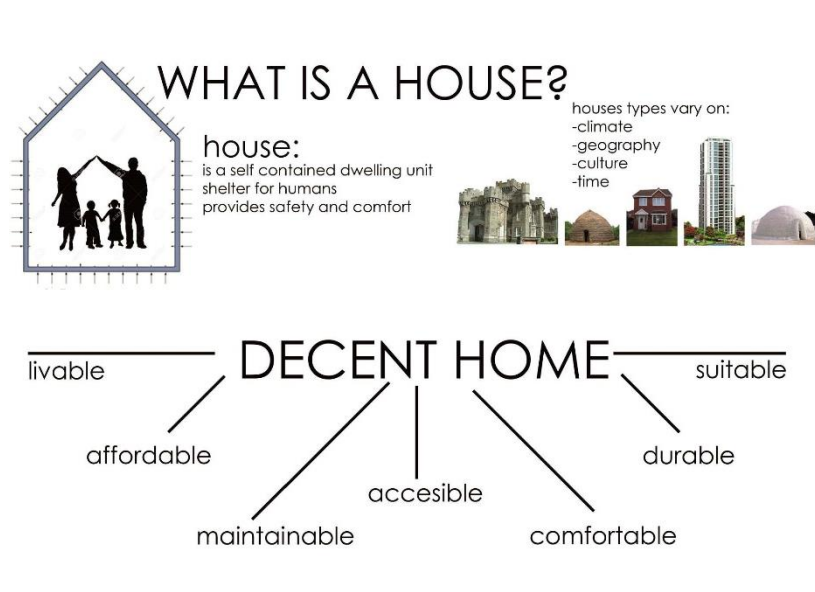
- TK: What is a house?

Figure 3.11. "What is a house?" task submitted by student Aysu Sagdic (ITU)

The tasks carried out by ETSA-UPV, ITU and GTU were commented on by professors and students from these schools.

An example of comments by GTU and ETSA-UPV teachers to Seben Askin:

(Sebnem Cakalogullari),

Your images and analysis give an idea about your home issue and position of yourself (sic). As it is understood from your work, the relation in the different scale creates your home idea in everywhere (sic). For your future work please focus on more descriptive notions that give the potentiality for space/place phenomena

(Carla Sentieri)Thank you for your work. I think your reflections about your feelings are good, but I would like to know if you think space (light, dimensions, proportions...) can improve the feelings or it doesn't matter to you.

I recommend you to see:

http://www.oikonet.org/thinking_dwelling/home

It is a blog where students reflect about home/house.

- TK: Experiencing the house

Figure 3.12. "Experiencing the house" task. Number of pieces of work submitted by GTU students

The tasks carried out by ETSA-UPV, ITU and GTU were commented on by professors and some students from these schools. The ITU presentations were videos that helped develop another kind of exercises in ETSA-UPV.

Here there is a comment to the group by Carla Sentieri about the task:

Hi all of you,

First of all, thank you for sharing your work.

I think you should reflect more on the space for each routine than on the routine. The routines out of the space are the same, but these routines can be very different depending on the place you do them.

This exercise should be for reflecting on this question. Do you think it is the same to clean your body in this bathroom and not yours? Does the space change our feelings?

Just reflect on it... I think that architecture changes our feelings a lot...

Thanks again for your work,

- LA: PRECEDENT ANALYSIS

The purpose of this activity is to learn from precedents, identify solutions provided by previous projects and transform them into new ones.

- TK: Analysis of single-home residential architecture.

Figure 3. 13. "Analysis of single-home residential architecture" task submitted by students Kerstin Mereder, Esteban Serrano and Natalia Sosnovskaya (ETSA-UPV)

This task was carried out by ETSA-UPV, ITU, GTU and UCY. The outcomes of this task were commented on by professors and students from these schools.

Cakalogullari, Sebnem on [16/10/2015]:

Impressive! The name of the work makes sense. Well done, it attracts my attention :). And in and out issue is a critical point and today's discussion over material, space organization, morphic characters, etc... (sic) In addition to your analysis the shadow of the solid/transparent or semi-transparent surface serves different spatial perception. For your further analysis what do you think about adding the effect of shadow in and out or in between situation of the built environment?

Good job

Alkiser, Yasemin on [18/10/2015]:

Although the examples are useful and have been portrayed well, there are basic missing parts in your analysis such as comparison, conclusion and sources. Analysis would be even more helpful if you could share learned outcomes. A very brief summary of each slide could have helped the reader to better understand the pictures. good beginning but needed more work to assist the reader (and yourself).

Yasemin Alkiser Bregger

Sosnovskaya, Natalia on [26/10/2015]:

Firstly, thank you for having paid attention to our work and having assessed it in such a good way. We are aware of the fact that it has several lacks (sic) some of which, as we can see, have been noticed by you too. We will attempt not to make this kind of mistakes in our next work and add all needed material.

Thank you again for your collaboration!

- TK: Analysis of multiple-home residential architecture

Figure 3.14. "Analysis of residential shared housing" task submitted by student Handenur Yüksel (ITU)

This task was carried out by ITU and ISCTE-IUL. The outcomes of this task were commented on by professors, and students from Valencia analysed the results and gave new references. Here are some comments:

Benlloch, Clara on [26/04/2016]:

This is a very interesting project. It has a very good dwelling distribution and I like the fact that every apartment has its own courtyard. What I don't understand really well is the section scheme, I think it would have been better to put a complete section of the building, but I have learned a lot from this project.

Thank you for your work!

Sosnovskaya, Natalia on [26/04/2016]:

This project is a very interesting choice to analyse, but very difficult to understand though. The vertical section schema is very clear, but it shows us the building idea in a very basic way, not in the way the plans do, and it confuses a little. We have understood this maladjustment as due to) the variety of possibilities the project can offer.

A similar project that could be interesting for you is Rue du Charolais of Eva Samuel because of its shape, and the presence and organization of public spaces there.

Good luck!

Tecles, Lucia on [26/04/2016]:

This project is an awesome project. Is impressive how the architects play with the different spaces but having the same structure. The spaces are really well structured, and have a logic function.

Thank you for showing your work, I didn't know it and it's really interesting.

Serrano, Esteban on [26/04/2016]:

This complex, is a fantastic project. We know some similar project in Spain, which use the double skin, and also, tend to have the same shape.

One is located in Barcelona, called Illa de Llum designed by Lluis Clotet and others, its privileged situation, in front of the beach, offers a fantastic views. To protect the dwelling of the sun the project uses the same type of blinds. It is also a tower, which is destined to host dwellings.

https://es.wikiarquitectura.com/index.php/Illa_de_la_Llum

Another project, located in Sociopolis, a surrounding area of Valencia, is actually under construction, but its shape, remembers the Situla Housing and Office Complex. Designed by Colomer-Dumont, the building are mainly dwellings.

http://www.mcbad.biz/work/select/torre-184-viviendas/

Cedeño, Josstin on [26/04/2016]:

The Situla complex located in Slovenia is a very cool project to be analysed.

The spaces which plays the architect (sic) are so functional, and it is expressed clearly at the section. Although this don't show the building idea like the plans do.

Thanks for showing us this fantastic project, Good luck!

Gallego, Victor on [26/04/2016]:

It seems a very interesting project. I think you've done a good job. Only emphasize that the scheme of the section of the building does not fit the scheme of the building does not fit the scheme of the plants (sic). We can see this building as meet (sic) the different uses as well as commercial, residential.

An example of buildings with different uses we would find apartments architect Javier Garcia Solera in Benidorm, where we find a restaurant located between apartments.

Congratulations for the work done!

Ortuño, Laura on [26/05/2016]:

Hi, I find this project very interesting because it has flexibility in this creation, that allows accommodate two different programs, dwellings and offices.

Another project with a similar program but a different form of resolution is "Building of dwellings and office in the block of Uriach laboratories" in Barcelona by TAC Arquitectos.

Thank you for sharing your work.

- LA: USER PROFILE ANALYSIS.

Houses are a complex expression of the social and individual worlds of their occupants, in which social structure, the patterns and conventions of everyday life seem to be closely related to the idiosyncratic and often chaotic circumstances of people's everyday lives. Students are encouraged to understand that the design of a "home" must address the practicalities of everyday living whilst responding to the owner's idiosyncrasies, personality and dreams. It is therefore important to be able to analyse, understand and address the profiles of possible users.

- TK: Analysis of potential users
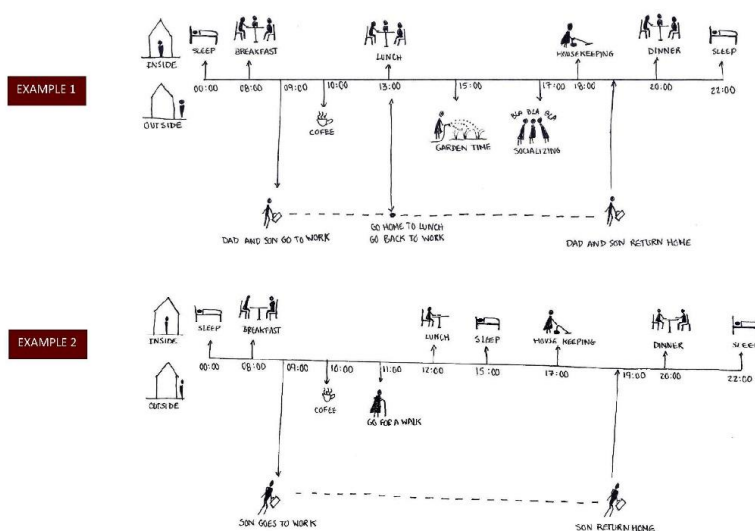
Figure 3.15. "Analysis of potential users" task submitted by student Matilde Branco (ISCTE-IUL)

This task was carried out by ETSA-UPV, ITU and ISCTE-IUL. The outcomes of this task were commented on by professors and students from these schools.

Sentieri, Carla on [14/03/2016]:

Hi Matilde,

Thank you for your work. Your presentation is very clear, but I have a question:

-Do you think a family lives all its life in the same house? Have you asked about it?

I observe that during life, people change house several times for work, activities, circumstances... What do you think?

Thank you again and I expect a comment about it.

Alkiser, Yasemin on [20/03/2016]:

Very good analysis and different scenarios to understand different life styles and needs. I think we need to know their age range to evaluate their daily life activities. For example, are you sure that everybody in all three examples wants to go to bed at 10 pm every day? ☺ considering also weekend or holiday activities for each age group would help you to create and design required better social and public spaces etc. Good work!

- LA: CONTEXT ANALYSIS.

The aim of this learning activity is to introduce context analysis with a view to detecting differences between ethnic, cultural and social categories including gender divisions and generational differences. Homes often reflect differences in environmental conditions (climate, light, air, topography) in different ways in different cultures and geographical areas. Such differences can be seen in the way domestic space is designed and organized. This activity encourages students to understand the ways in which domestic space is site/context specific.

- TK: Visual mapping of context.
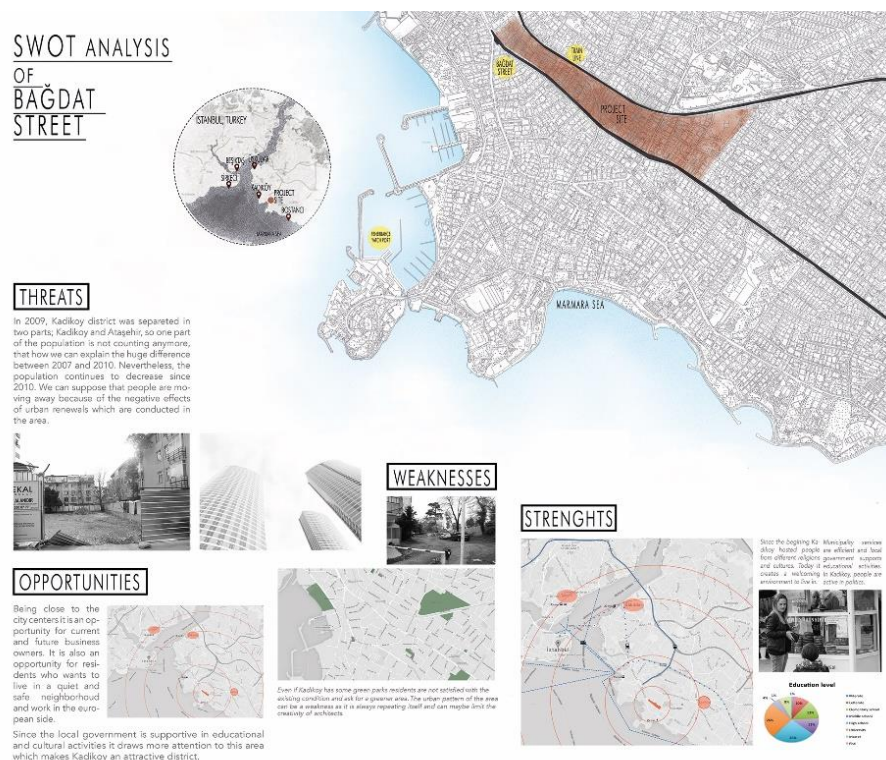
Figure 3.16. "Visual mapping of context" task submitted by student Dilruba Yurtseven (ITU)

This task was carried out ETSA-UPV, ITU and ISCTE-IUL. The outcomes of this task were commented on by professors and students from these schools. This task was very important for knowing the context in which each school was going to work. The analysis of these tasks revealed that the ITU and ISCTE-IUL projects were more urban and on a much larger scale, and that their original planning was similar to a master plan. The ETSA-UPV project, on the other hand, was on a smaller scale, a plot of land, making it an architectural than an urban planning project.

- TK: First impressions

This task was carried out ETSA-UPV and ITU. The outcomes of this task were commented on by professors and students from these schools.
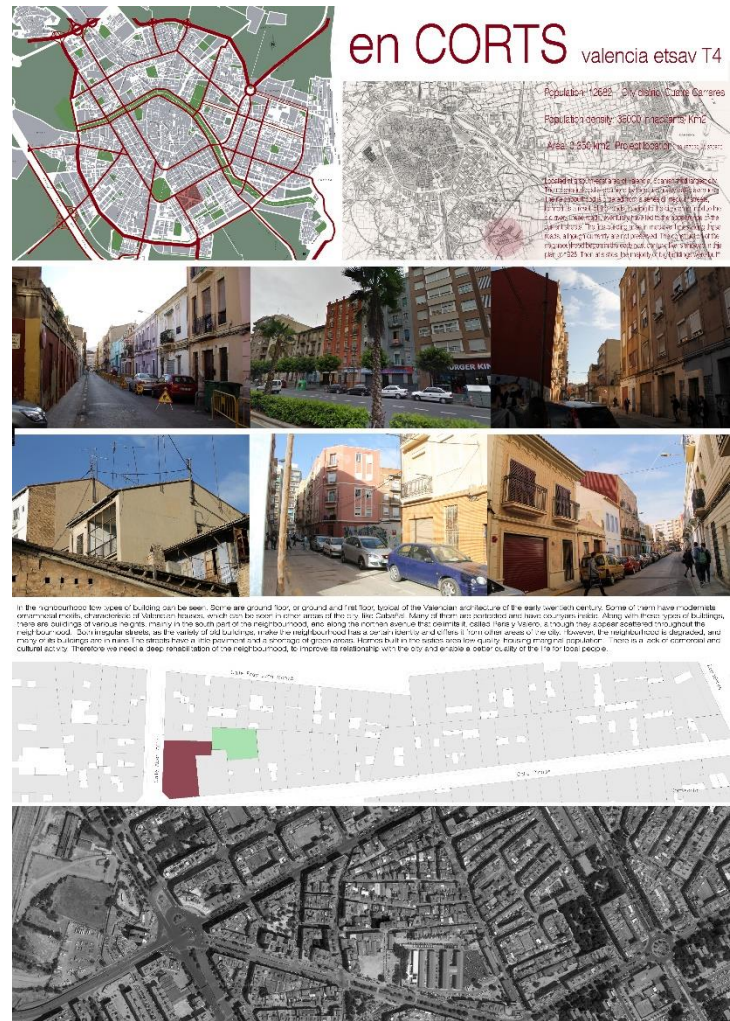
Figure 3.17. "First impressions" task submitted by student Esteban Serrano (ETSA-UPV)

-TK: Background of the area
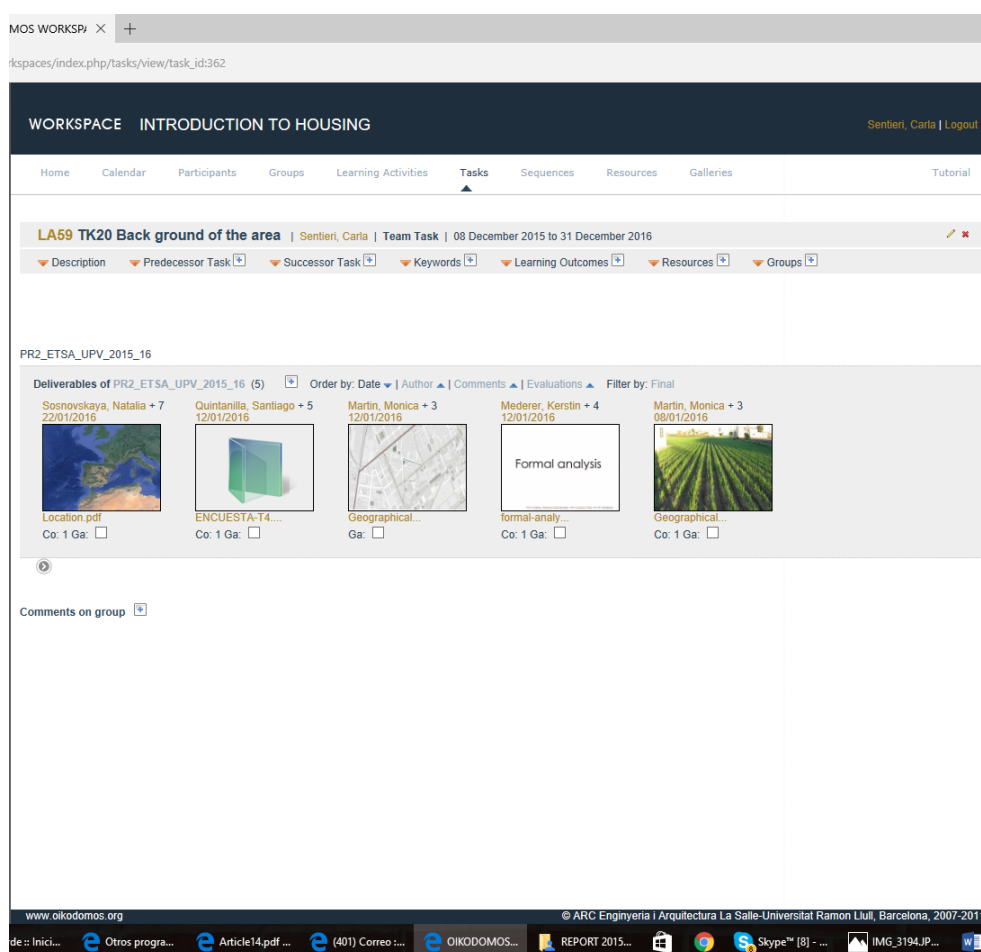
Figure 3.18. "Background of the area" tasks submitted by ETSA-UPV students

This task was performed by ETSA-UPV and ITU. The outcomes of this task were commented on by professors and students from these schools.

During this task, ETSA-UPV students examined the work submitted by ITU students and then structured their analysis using the same aims: analysis of the place according to its history, culture, sociology, geography and types of architecture. This made them more aware of the most important issues and the information that was essential in order to know the place. They even modified their analysis and included some of the proposed surveys to gather information about the people living there.

- LA: AT HOME. NEW DESIGN PROPOSALS

Taking into consideration the work done during the above tasks, students were asked to design a "home" in a specific context that addresses local conditions and culture, the practicalities of everyday living and the users' profile, personality and dreams. Understanding the context and the relationship between the spatial structure of a domestic space and the social life of the inhabitants is one of the main challenges in this learning activity. We were interested in the ways the home, in the sense of a spatial form, relates to social and cultural considerations and

the individual, in a context of the increasingly divided, complex and differentiated experiences of contemporary life.

- TK: House design proposals. Initial concepts

In this task, ETSA-UPV students chose an ITU student and monitored his work from his analysis of the place, through the program and his original ideas to the final results. This gave more insight into the project and enabled each project decision to be taken into account depending on the previous data.

Figure 3.19. "House design proposals. Initial concepts" task submitted by student Esteban Serrano (ETSA-UPV)

- TK: Collective housing project

The students were asked to develop design proposals for collective housing in specific ¡ contexts and for different users' profiles.

Figure 3.20. "Collective housing project" task submitted by student Pablo López (ETSA-UPV)

3.4 Blended-learning environment

The learning activities took place in both classrooms and the OIKODOMOS Workspaces on-line learning platform.

3.4.1 On-site activities

2013-14 spring semester

During the 2014 spring semester, students from two ETSA-UPV groups participated in the learning activities. One group consisted of 27 first-year design studio students who met twice a week for 1.5 hours each time. The other group consisted of 28 students from a second-year design studio who met twice a week for 2.5 hours each time. The activities and tasks

undertaken in the learning space were part of the students' assignments in the studio.

A group of 19 students from the second-year design studio at UCY also took part in the learning activities. They met twice a week for 6 hours each time. The activities and tasks undertaken in the learning space were part of the students' assignments in the studio.

2014-15 winter and spring semesters

Thirty second-year design studio students from ETSA-UPV took part in the learning space. They met twice a week for 2.5 hours each time. The activities and tasks carried out in the learning space were once again part of the students' assignments in the studio.

Two groups at UCY took part in the activities. During the 2015 spring semester, 31 second-year design studio students and 4 fourth-year students took part. They met twice a week for 6 hours each time. The activities and tasks carried out in the workspace were part of the students' assignments in the studio.

Both second- and fourth-year UCY students took part in the 2014 winter semester activities, including 35 for whom this was an optional course. The students met once a week for three hours each time and shared some of the tasks carried out shared in Workspaces.

The classes in both school focussed on an introduction to the theory behind the exercises, presentations of students' works, discussions about the comments received via Workspaces and doing the work in the on-line environment.

2015-16 winter and spring semesters

Twenty-eight second-year design studio students from ETSA-UPV took part during the winter and spring semesters.

In the 2016 winter semester, 13 GTU students of the second year of the elective course "Model Making Techniques" took part in the learning activities.

During the 2016 winter semester, 26 ITU second-year (fourth semester) design studio students participated in the learning activities. They met twice a week for at least eight hours on Mondays and Thursdays. The learning space tasks accounted for most of the assignments done by these students. During the 2016 spring semester, 19 third-year (sixth semester) design studio students also took part with the same schedule of meetings as in the winter semester.

At ISCTE-IUL, 17 third-year design studio students took part in the activities. During the 2016 spring semester, students met three times a week for three hours each time. The activities and tasks carried out in the workspace were part of the students' assignments in the studio. The studio design process was organised as follows: introduction to the theoretical basis of the exercises; presentation of work by students; discussion of comments received via Workspaces; and completion of course tasks.

3.4.2. On-line activities

In the 2013-14 academic year, the first year of the project, OIKODOMOS Workspaces were used as a framework for the learning activities and cooperation between partners. Students used this platform to share their work and received comments from peers and tutors from their own and other schools. In the second year, 2014-15, cooperation was far greater because tasks were planned together by the schools taking part. The activity using the on-line platform was also complemented by a Skype meeting in which presentations were shared. In the last year of the project, 2015-16, the number of participating schools increased from two (ETSA-UPV, UCY) to five (with the addition of ITU, GTU and ISCTE-IUL). The activity using the on-line learning space increased considerably in this final session.

Students were given written and spoken instructions about the aims, methods, learning outcomes, explanations and the format in which to submit each assignment. Using the blended-learning approach (face-to-face and by teleconference), students received in the classrooms the theoretical underpinnings of the work to be done. Then, they had to share their ideas and work in the OIKODOMOS Workspaces. This enabled them to receive feedback from the peers and tutors of other schools which was subsequently discussed in meetings in the classroom.

3.5 Collaborative activities

The joint activities carried out in each of the three academic years when the learning space was active were as follows:

2013-14 spring semester

During the 2014 spring semester, a joint learning structure was developed. Most of the efforts concerned the creation of the common framework for learning activities and tasks. There was not much time available to foster active cooperation between students from the participating schools.

The participants in the activities were:

- ETSA-UPV: 55 undergraduate students and 1 tutor.
- AF BELGRADE: 41 students and 1 tutor.
- UCY: 19 students and 1 tutor.

2014-15 winter and spring semesters

During the 2014 winter semester, the ETSA-UPV and UCY students worked together on the "What is a house?" task in OIKODOMOOS Workspaces. This was followed by:

- Tomas Ooms, teacher from KUL, commenting on their work
- UCY students commenting on the work of ETSA-UPV students.

During the 2015 spring semester, learning activities and tasks were designed by ETSA-UPV and UCY working in conjunction. In addition, a joint timetable was set up to facilitate cooperation.
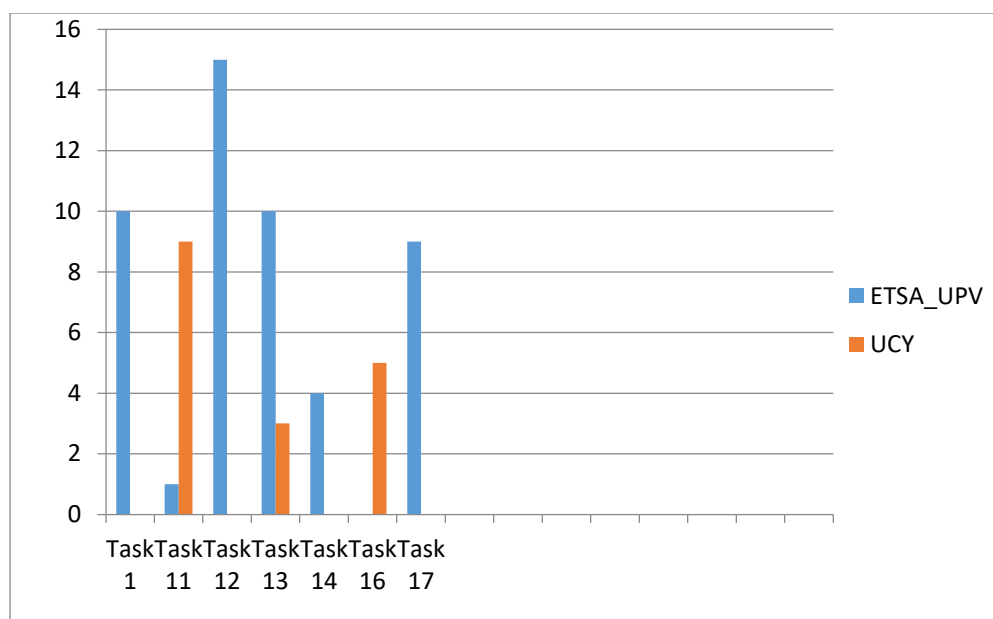
Figure 3.21. Number of works uploaded during winter and spring semester 2014-15

During the 2014-15 academic year, 30 ETSA-UPV students and 35 UCY students took part in the learning space activities. Some tasks were done by groups of 3 or 4 students.

2015-16 winter and spring semesters

During the 2015-16 academic year, learning activities and tasks were designed in keeping with the teaching aims of the courses taught by the five institutions taking part in the joint learning space: ETSA-UPV, UCY, ITU, GTU and ISCTE-IUL.

The students who took part in the joint activities that year included 27 from ETSA-UPV, 21 from UCY, 25 from ITU (spring semester), 18 from ITU (winter semester), 12 from GTU, and 16 from ISCTE-IUL.

The winter semester activity involved six tasks which led to 13 pieces of work being submitted by GTU students, 33 by ITU students, and 17 by ETSA-UPV students. Their work received 26 comments from tutors and students.

During the 2015-16 spring semester students carried out eight tasks. ITU students submitted 59 items of work, ETSA-UPV students, 62; UCY students, 6; and ISCTE-IUL students, 38. They received 38 comments, again mostly from tutors and some from students. The tasks by other universities received about 36 comments, mainly from teachers and some students.

Students were able to submit their work within the same period of time, enabling them to follow and discuss the work by other students. This feedback was important for the continuation of their work.

Different ways of using the work submitted by students as learning resources for students of other schools were implemented. In one case, the work submitted under Task "Analysis of shared housing" was analysed by ETSA-UPV students who then provided additional references for ITU and ISCTE-IUL students. In another case, each student from Valencia selected a design project from an ITU group, followed its development as a tutor and commented on its evolution (Task "First impressions", Task "Initial ideas" and Task "Collective housing project"). These activities gave meaning to the collaboration in the shared learning space, using the work submitted by students as learning content and enabling them to

act as peer evaluators and peer tutors.
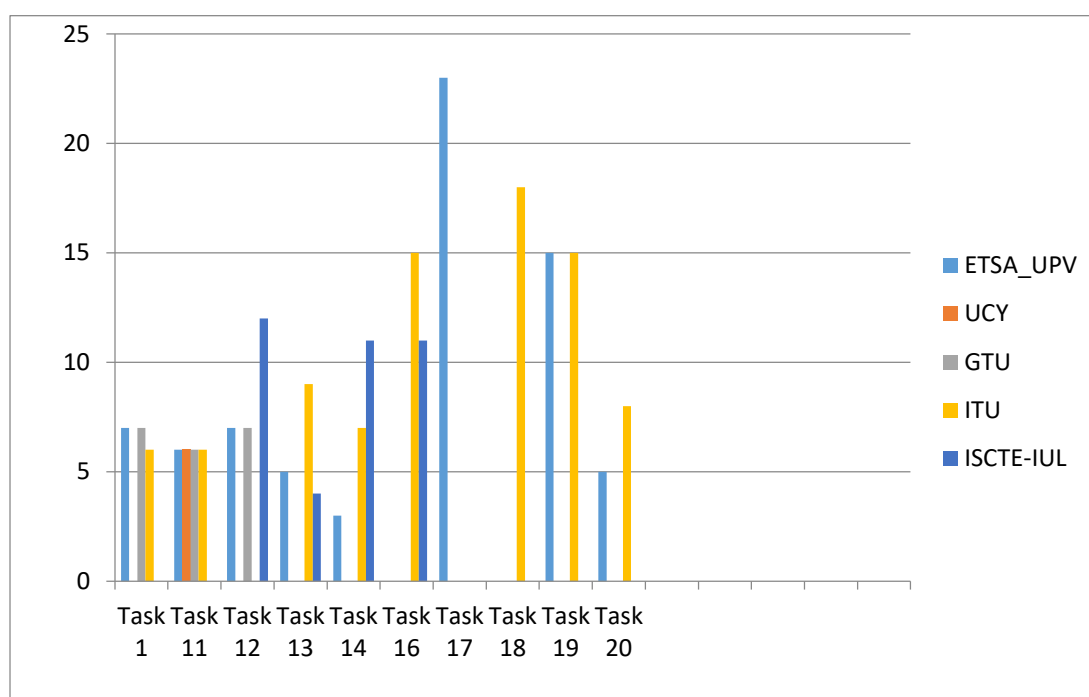
Figure 3.22. Number of items of work uploaded during 2015-16 winter and spring semester

3.6 Outcomes

2014-15 winter semester

Three university partners participated in the shared learning activities involving 4 tutors and 162 students.

The numbers of pieces of work submitted by students according to their university were as follows: AF BELGRADE: 41; ETSA-UPV Valencia: 179; UCY: 41.

The number of pieces of work submitted by students according to specific learning activities were as follows: LA53 – Recognize the space: 114; LA54 – Interpretation of a text: 30; LA55 – Precedent analysis: 42; LA58 – User Profile Analysis: 31; LA59 – Context Analysis: 18; LA60 – At Home. New design proposals: 26.

Some learning resources facilitated to students may be useful for future editions of the learning space. They are available in the resources area of OIKODOMOS Workspaces (http://www.oikodomos.org/workspaces/index.php/activities/viewwork/activity_id:55)

2015-16 academic year. 2015-16 winter and spring semesters

Altogether 117 students and 5 tutors were active in the learning space. The numbers of items of work submitted by students and classified by learning partners were as follows: ETSA-UPV, Valencia: 53; ITU: 33; GTU: 13; and ISCTE-IUL: 38.

The numbers of student submissions classified by specific learning activities were as follows: LA53 – Recognize the space: 38; LA55 – Precedent analysis: 44; LA58 – User Profile Analysis: 26; LA 59 – Context Analysis: 43; LA60 – At Home. New design proposals: 36.
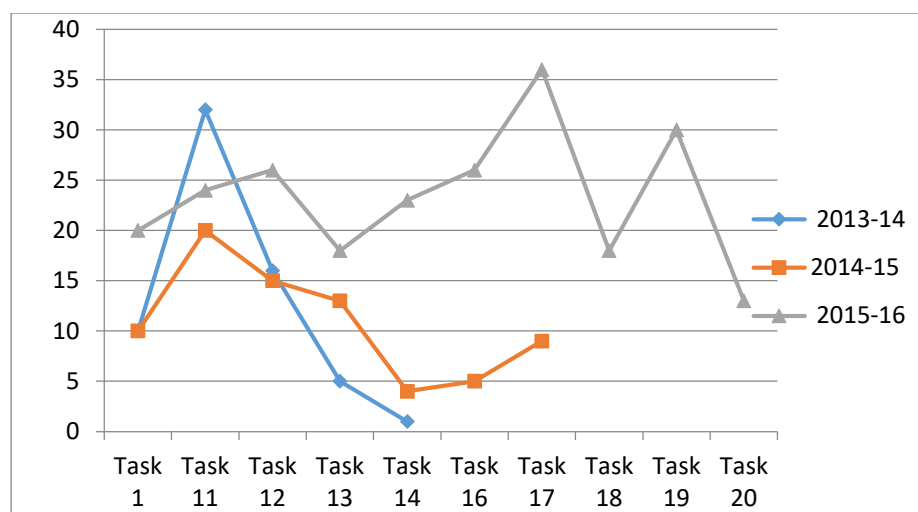
Figure 3.23. Number of items of work submitted during the editions of the learning space.
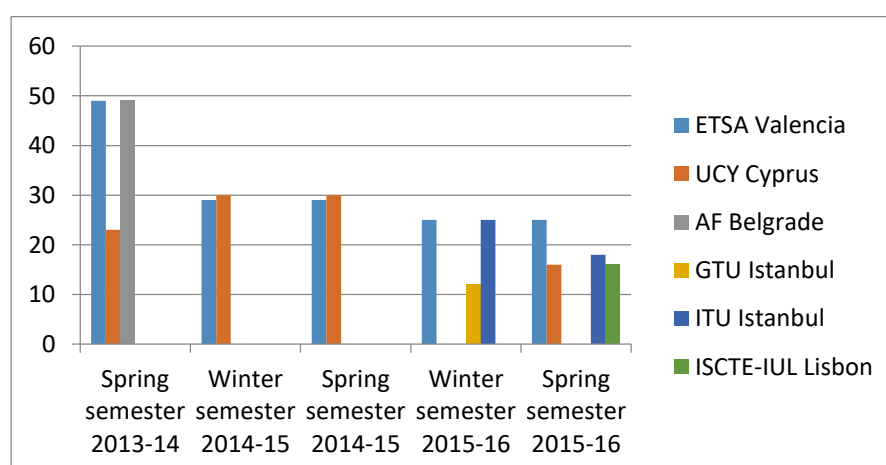
Figure 3.24. Number of students participating in the editions of the learning space.

3.7 Evaluation of results

2013-14 spring semester

The "Introduction to Housing" learning space was evaluated by means of an on-line questionnaire given to ETSA-UPV students at the end of the 2013-14 spring semester.

The main objective of the evaluation was to assess the effectiveness of learning, the achievement of learning outcomes, and the extent to which the on-line platform was incorporated into the students' learning experience.

Student expectations. In addition to their expectations about the subject under study (learn the basics for carrying out an architectural project, learn how to handle measures and materials, analyse spaces and houses, learn about new types of houses), students had high networking and sharing expectations: they expected to meet people from other countries on-line and exchange ideas, methodologies and projects with them. In general, these expectations were fulfilled.

In general, the use of the on-line platform was not considered very important for the course during this period because it was at an early phase of implementation.

Participating in the joint learning space was considered to be particularly useful for contacting

and communicating with others, and also for sharing projects.

In general, students thought that participating in the learning space was positive and interesting. What they liked most was networking and working together in activities: sharing and comparing their work, learning from others, meeting other students and architects (mentioned by 18 students).

Most students regarded the international learning experience as motivating, encouraging and inspiring. Students were able to share their work with fellow students from other participating schools. It also gave tutors the opportunity to work together, to get to know different teaching methods and see the work of students from other schools. However, the first edition of the learning space revealed that more time and better planning was needed in order for it to reach its full potential.

A recurring problem was the difficulty in balancing partners' regular learning activities at their institutions with the collaborative learning activities carried out in the learning space. Differences in schedules, learning and the approach to tasks caused problems when trying to standardise joint activities.

2014-15 winter and spring semesters

Collaboration was planned better, tasks were really shared and exercises were commented on. Participation in the learning space was not evaluated. Professors and students commented on the exercises. The cooperation between different academic programs improved.

On the other hand, the asynchronous cooperation in this period began to run smoothly because the teachers of each school knew when the other schools would submit their tasks, enabling teachers to include them in the learning process. During this period, the students from Valencia worked this way, analysing the work from other periods posted on the platform.

Synchronous cooperation enabled a direct relationship to be developed by the students and teachers of different schools because whilst carrying out the task, the platform becomes another tool for reviewing the exercises and providing feedback. Asynchronous collaboration often occurred when students were reviewing the exercises available on the platform done by students who took part in other sessions. Students had access to previous examples, the results of the analysis of a place and proposed projects, and could even look at just the graphics of presentations, but there is no evidence of these activities because no comments about them were left on the platform.

2015-16 winter semester

Three schools joined the learning space. This resulted in more close-knit collaboration but better planning was required. ITU and GTU were already familiar with the activities carried out during the previous sessions and decided to share some of the existing activities and create some new ones too. The learning space leader (ETSA-UPV) supervised the integration of the new tasks and introduced new participants to the on-line platform.

A questionnaire to evaluate the results was distributed amongst students at the end of the semester.

More than 50% of students said they hoped to learn from students in other countries and find out how they worked. They hoped to interact with students from other schools and to find out about each other's different points of view, approaches and methodologies in order to broaden their horizons.

As for the added value of OIKODOMOS Workspaces, more than 50% of students said it was a good way of enabling them to find out about projects by students at other institutions. This

allowed them to compare their own projects with those of other students and gather ideas to improve their own projects.

According to most students, the integration of Workspaces into their courses at their institutions was good. Students also said that the interface was confusing and difficult to get used to. However, it allowed them to access the work of other students and their evolution. Students uploaded the work they carried out in each task and then had time in class to study the projects of their classmates.

For most students, the experience of cooperating on-line with students from other countries was very good. They appreciated receiving comments from other students and tutors because this allowed them to improve their own works and learn about other points of view. All comments were polite and constructive.

In order to create a real feeling of international cooperation, students suggested working on the same project together with students from other universities in order to experience different approaches and points of view. Furthermore, some suggested using more interactive tools, such as Skype or video conferences. However, several students appreciated the Workspaces and suggested using them more frequently and extending their use to other institutions in order to create a worldwide collaborative network of students and tutors.

The usefulness of commenting on others' work was rated very highly. Students particularly liked the fact that their comments could help improve the work of others. Furthermore, to be able to comment on a work they were obliged to study it carefully and thus learned much more. Thanks to the comments, they realised that there are often many possible answers to the same question / exercise.

In general, students liked receiving comments from their peers and tutors.

They suggested that tutors should encourage students to participate actively and regularly.

2015-16 spring semester

In this semester we tried to solve some of the recurring difficulties – coordination between schools, communication difficulties – and continued progressing towards closer collaboration. Skype or video conferences were more difficult because of the different timetables of courses at each school. Nevertheless, the coordination between teachers has improved and the number of comments on the tasks has increased.

We were able to evaluate the results by the comments on other schools using the evaluation tool provided by the platform.

Figure 3.25. Evaluation of work in the "Collective housing project" task by an ETSA-UPV teacher

3.7.1 Evaluation of student feeback

Student feedback was collected via on-line questionnaires (see Deliverable 6.3 for a comprehensive report) in three rounds of evaluations, one per academic year. The main findings can be summarized as follows:

- Students were enthusiastic about the high number of schools and students who shared their work in the learning space. They saw different projects and received several comments, which was very valuable for them. But they would have appreciated more communication and interaction with other students from other schools maybe also by using additional tools such as Facebook.

- During the first edition of the learning space, the use of the on-line learning platform OIKODOMOS Workspaces was not considered very important. Many students did not use the platform very often and accessed it only to submit their assignments. However, during the third edition of the course (2nd and 3rd evaluation), the students valued the use of the online platform more.

- In general, the tasks and their sequence were clear and meaningful. The tasks were explained by teachers but some students still had difficulties in understanding them. It might have been useful to add a simple explanation of the tasks to the online platform. Still, for some students, the task-based structure of the LS was one of the strongest points of the OIKONET project.

- Online collaboration with peers from other institutions was a very good experience for the students. They liked commenting as a way of online collaboration. They appreciated receiving comments on their works, both from peers and teachers as this allowed them to improve their works. However, they thought that it could be still improved: more and more extensive comments would have been useful.

- Some students suggested using the OIKONET learning environment more frequently and extending its use to other institutions.

3.8 Conclusions and further steps

Participating in the "Introduction to Housing" learning space was a fruitful experience for both students and tutors. Not only were students exposed to different cultural and academic contexts, but they experienced various methods of learning through the virtual campus and were able to comment on other students' work and receive feedback from both peers and tutors.

Participating teachers experienced the potential of developing blended-learning environments using OIKODOMOS Workspaces as a way of facilitating interaction between students from different institutions and contributing to a better understanding of the multiplicity and complexity of housing issues. They received feedback from other colleagues and became familiar with a variety of different teaching methods and learning resources.

Learning activities and tasks have been collaboratively designed in keeping with the teaching goals reflected in the learning outcomes established by the participating institutions. Teachers had the opportunity to design learning activities and tasks collaboratively, whilst describing the learning outcomes to be used to jointly assess students' work.

The work to be carried out in the workspace must be carefully planned so it can be tailored to the needs of each institution and, particularly, their schedule. It is important to design activities that enable a given school to use the work done previously by other institutions as a learning resource. This will also enable more effective peer evaluation in each distinct phase of the learning process. In addition to the work done in OIKODOMOS Workspaces, further interaction among learners needs to be promoted through on-line lectures and discussions.

After three years of collaboration, we have a created a learning structure that can be used for future editions of the learning space. Along the road, we have helped foster cooperation between different academic programs which feature the subject of housing. Other schools can use this learning structure to continue sharing design studio courses that equip students, teachers and researchers with the skills needed to work in a readily accessible, international environment.

The design studios involved in the program have contributed to the development of technology and enhanced learning by embedding ICT in the learning processes and learning structures. They have also drawn up evaluation procedures to guarantee the quality of the teaching activities to be implemented by partner schools in formal pedagogical settings.

4 HABITAT REGENERATION STRATEGIES

by Viera Joklova, Faculty of Architecture, Slovak University of Technology

4.1 Introduction

The creation of the learning space "Habitat Regeneration Strategies" (HRS) was firstly discussed during the second meeting of subnetwork Pedagogic Activities, which took place in Lisbon in July 2014. AF BELGRADE had recently carried out a participatory learning activity "Integrative Urban Design in Urban Regeneration of Savamala", during a summer workshop, concluded with an exhibition at AF BELGRADE in June 2014. Relevant stakeholders in the area object of study participated in the activities. Their involvement followed an incremental and cyclical process of learning, each phase widening the level of participation among stakeholders and partners: from reflection towards collaboration. Students' designs were presented via video conference to other OIKONET partners – LA SALLE and FASTU.

Based on that experience, this learning space is aimed at supporting a wide range of learning activities in concerning the regeneration of cities, in Europe and worldwide, with a particular focus on the issues of liveability, housing and resilience. Urban or housing regeneration processes involve relatively large number of OIKONET partners from the different subnetworks. The Research subnetwork is preparing a reader on housing regeneration processes. The Community Participation subnetwork is dealing with the involvement of residents in participatory processes to create sustainable communities. In this context, this learning space can be use as catalyst that bring together the three subnetworks, Housing Research and Community Participation, with Pedagogical Activities.

The objective of the learning space is to explore in theoretical and practical ways the complex issue of housing regeneration. Learning activities are aimed at analysing particular cases, identifying problems and needs for regeneration, exploring the examples of housing regeneration strategies, forging new visions and proposing actions which bring together multiple domains (urban planning, architecture, urban geography).

The initiators of this learning space are: Faculty of Architecture at Belgrade University (AF BELGRADE) – (coordinator), Faculty of Architecture, Slovak Technical University, Bratislava (FASTU), Institut d'Urbanisme de Grenoble (UGA) and Volgograd State University of Architecture and Engineering (VSUACE). Later on, other OIKONET partners joined the learning space: School of Architecture La Salle (LA SALLE), School of Architecture of Valencia (ETSA-UPV), Dublin Institute of Technology (DIT), Universidad Politécnica de Puerto Rico (UPPR) and University of Thessaly (UTH). UN Habitat is providing support with their published studies and recorded presentations.

4.2 Topic

Many towns have wasted, un-used or under-used land and/or brownfields. Developing urban regeneration strategies are an opportunity to activate those areas and to improve the living environment. According to Eurocities, urban regeneration is at the core of city planning. Urban regeneration can be defined as the integrated local redevelopment of deprived areas (housing, neighbourhood, city, metropolitan area). It covers many aspects of city life: physical, social, economic and environmental. A regeneration process integrates the multiple dimensions of an urban design process with the local governance and stakeholders.

The creation of an OIKONET learning space on housing regeneration offers an opportunity to study this complex issue from an international and multidisciplinary context that facilitates sharing experiences and analysing examples on urban regeneration worldwide. The activities, carried out in the learning space, foster the collaboration of students, teachers and researchers at an international level.

4.3 Implemented learning activities

- LA: WORKSPACE INTRODUCTION. Based on previous experiences in using virtual environments, AF BELGRADE firstly introduced this learning activity, aimed at the socialization of participating students.

> **- TK: Welcome / introduce yourself.** Student introduced themselves explaining their interest in the topics of housing regeneration. Students from FASTU and AF-Belgrade did this task.

> **-TK: Group introduction.** Groups made a short common introduction, allowing identification of the members of the group and communication with international fellow students (by means of e-mail, Skype, Facebook group, Google+). This task was done by students from FASTU.
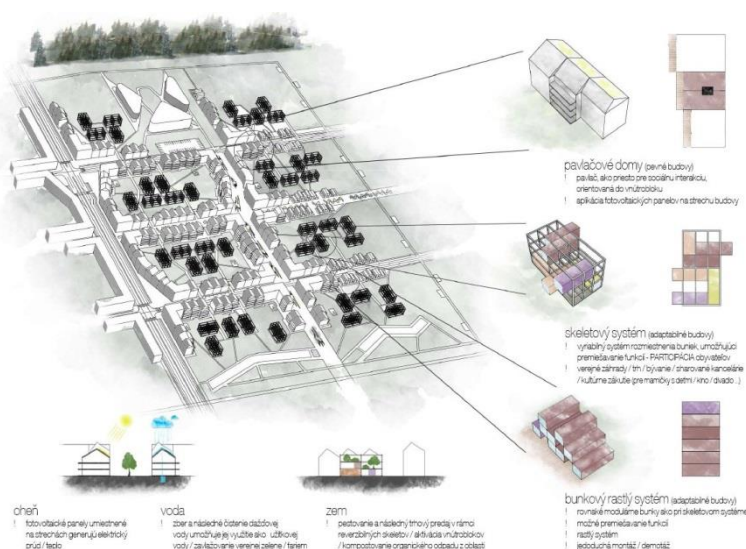
Hi! I would like to introduce to you our group. My name is Veronika Gramerová and I am working with my classmate Ivana Naďová. We are students of architecture at The Slovak University of Technology and we will work together on a project called habitat regeneration strategies. The goal of this design studio is to design a regeneration project of a part of Bratislava called Petržalka.

Figure 4.1. Submission of Task 4 by students Veronika Gramerová and Ivana Naďová (FASTU)

- LA: URBAN HABITAT REGENERATION AND INTEGRATIVE URBAN DESIGN IN SUSTAINABLE DEVELOPMENT. The next learning activity aimed at introducing the problem of habitat regeneration in general, to explain the role and activities of UN Habitat and their educational resources, to define sustainability and analyse a successful case of habitat regeneration.

> **- TK: Exploring the case of Ciutat Vella**. The case of Ciutat Vella was selected for analysis by four groups of Belgrade students within this task. Analysed were different aspects of regeneration process: social, institutional, economic and ecological. Three of the four submissions are presented in the Workspaces.
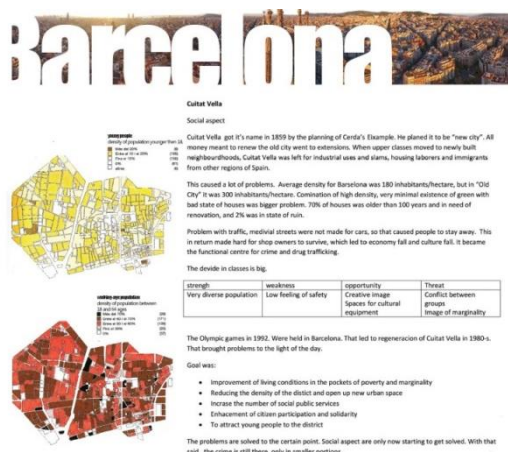
Sentieri, Carla on [09/10/2014]:

Hello I am Carla Sentieri, a teacher from Architecture School in Valencia. You can find a lot of information in this book: Ciutat Vella: un pasado con futuro. Joan Busquets.Is translate into English. I hope it will be useful for you.

Devetakovic, Mirjana on [10/10/2014]:

dear Carla, many thanks for your comment and this book suggestion. The students have already used the book and they could let you know their opinions and how useful it was for their quick research. From my point of view, it is a brilliant material and a must-have title... Please do continue to participate with your comments and invite your students to possibly join this Workspace.... :)

Figure 4.2. Submission of Task 6 by students Milan Ostojić, Iva Teodora Vuković, Tamara Mihić, and Nina Zečević (AF BELGRADE)

- TK: Exploring the examples of urban regeneration strategies. In this task, students working in groups were required to search and identify good examples in regeneration strategies in waterfront and brownfield habitat central zones in the cities all over the world and explain, why they selected these examples, having in mind possible application in their respected case studies. Three partners joined this task: AF BELGRADE (with 3 submissions), FASTU Bratislava (with 48 submissions) and VSUACE Volgograd (with 2 submissions). Students frequently browsed their peers´ works and commented them. This international students´ research together with the resource documents uploaded by teachers represents significant information base on the examples of housing regeneration strategies worldwide.
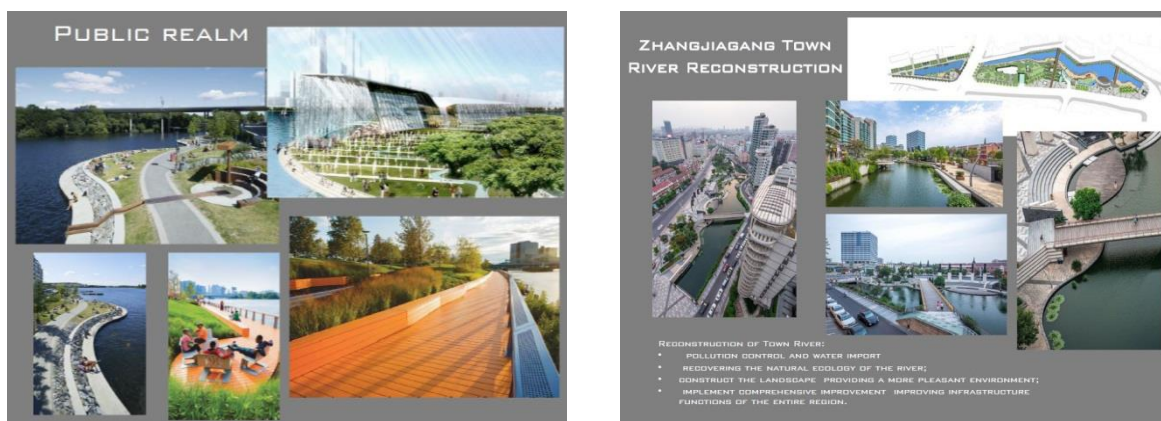
Figure 4.3. Submission by student Nadya Abdrashitova (VSUACE)

- TK: Present appropriate precedent of urban habitat regeneration. It was created by DIT in February 2015 for Dublin students joining the HRS learning space to identify an appropriate precedent of urban habitat. Four individual submissions were presented.

- LA: CREATING HABITAT REGENERATION STRATEGIES. The next learning activity focused on a local or selected international problem and at analysing regeneration strategies behind the examined case studies. It aimed at analysing particular cases of habitat, identifying problems and needs for regeneration, main and the most important stakeholders, identifying or creating wider regeneration visions and proposing set of related actions from the specific disciplinary viewpoint.

- **TK: Habitat analyses**. This task dealt with the analyses of particular cases of habitat, with wider relationships, traffic, functional analysis, analysis of greenery, identification of problems and needs for regeneration, identifying or creating wider regeneration visions and proposing set of related actions from the specific disciplinary viewpoint (urban planning, architecture and urban geography).

Comments

Wei, Si on [15/11/2014]: Good day to you.
We are students of Institut of Urbanism of Grenoble in France who are working on the subject of Bratislava morphology. We read your document and we found it's extremely interesting. At the same time, we have a question for you: "Do you think it is important to have the system of Bratislava's tramway on the map of connectivity analysis"?. (Because we are the group who study influence of transport structure's influence on form of city.) Do you consider it as a factor important in the structure of the city?

Figure 4.4. Submission by group of Miriam Szabová (FASTU)

Hi,
I think, the tramway is in our city very important. It is very good to have different options for transport - I can see it every day how tram is important, when mornings are traffic jams in the streets and it is impossible to be in time by bus or car. In our city are the tram also used in the pedestrian zone for transport. I hope, I answered a bit your question, but I am not sure, if I understood it right.BR. Miriam

Figure 4.5. Submission by group of Miriam Szabová (FASTU)

- TK: Urban morphology and regeneration of riverbanks of four European case studies: Belgrade, Bordeaux, Bratislava and Nantes. This task was proposed by UGA. The main aim was to analyse cities where regeneration strategies of waterfront areas are important issues. It considered the historical and geographical reasons that influenced first the creation, then the spontaneous and planned evolution of these cities. First phase of the task comprised three exercises in which students analysed the formation and evolution of selected city. They should understand the reasons for the creation of the chosen city and the characteristics of its original/natural site; the importance and role of the city at local, regional and international level throughout history, as well as the layout of the historical core and of the original road connections need to be identified at this point. Next exercises were based on the understanding the growth patterns of the chosen city and identifying the relationships of railways and waterways to urban forms. Finally, students analysed the urban projects concerning the regeneration of riverside areas in the chosen city, from the last thirty years. They synthesised the main tendencies, principles and guiding design ideas for the regeneration of brownfields, of docks, for the transformation of infrastructure and of public space, for the (re)creation of habitat etc.
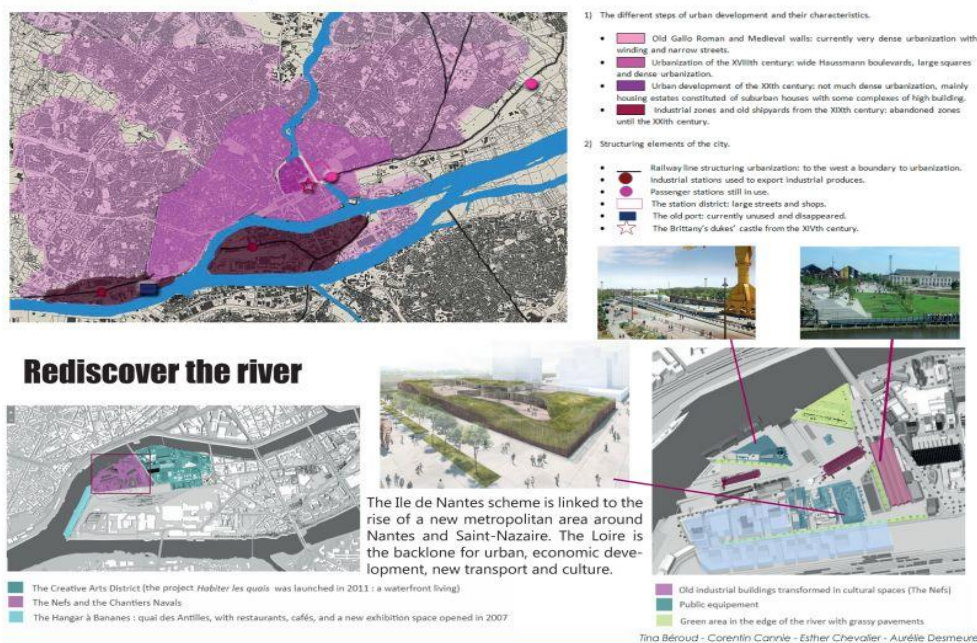
Figure 4.6. Submission by group of Esther Chevalier (UGA)

- TK: Sustainable mobility. This task, focused on the case of the Bratislava Petržalka central axis, is strongly determined by the planned bearing transport system, represented by ground tram system, connecting Petržalka with old city and its amenities. Planning new tram line and stands generates the creation of new public spaces in dwelling surroundings. Student's research was aimed on the sustainable mobility principles, which will be discussed on the workshop with experts and citizens in planned participative action.
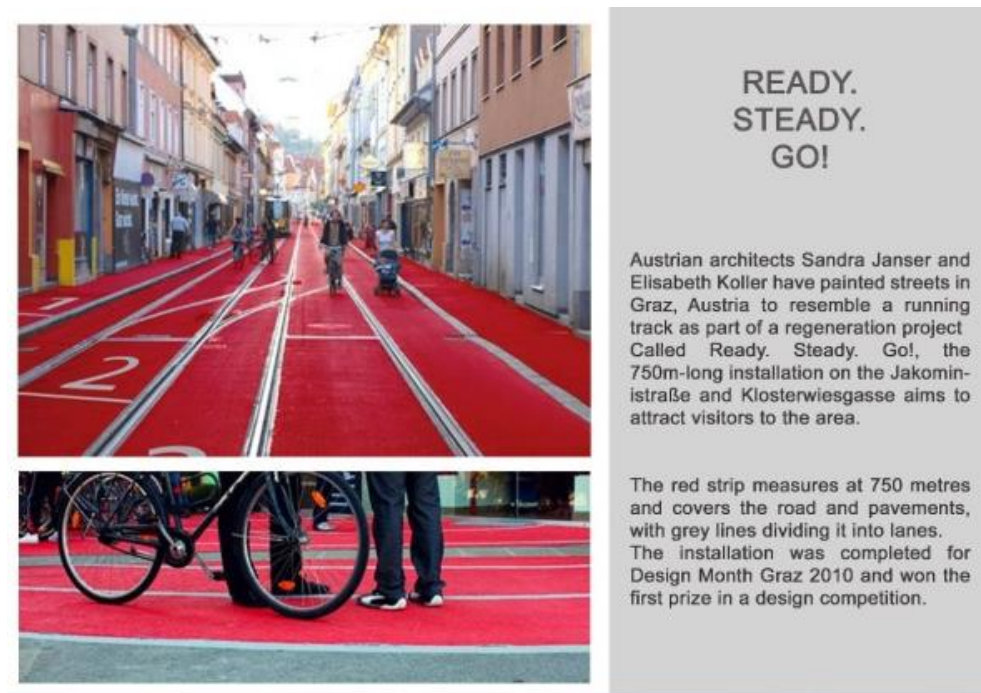
Figure 4.7. Submission by group of Katarína Ružeková (FASTU)

- TK: Process of visioning. This task was most important for students from AF-Belgrade. After being introduced with the methodology of integrative visioning, students, divided in four groups, defined possible visions for the regeneration of Krupanj.

Figure 4.8. Two examples of integrative visioning for Krupanj (AF BELGRADE)

- TK: What is sustainability and resilience. This task was performed by AF BELGRADE students, who explored and presented the concept of resilience in relation to sustainability.

- TK: Conceptual Model Design. This task was most relevant for FASTU students. Based on the analyses and examples of regeneration strategies tasks, students in this task

presented their conceptual design for particular case study regeneration strategy. Part of the final presentations of FASTU students have been transferred on-line via Adobe Connect video conference to partners for critique, discussions and commenting. Participated partners: LA SALLE, UGA, AF BELGRADE and VSUACE.

Figure 4.9. Submission by group of Juraj Fabrici (FASTU)

- LA: HABITAT REGENERATION ACTION. The last learning activity aimed to synthesise the research done on regeneration approaches and strategies, as well as to complete the analyses of particular case studies, with the finalization in the proposal of the regeneration action.

- TK: Present appropriate precedent of urban habitat regeneration. DIT students identified a precedent of urban habitat regeneration and presented it graphically and in text explaining, how it relates to the stated criteria of this learning space.

- TK: Presentation of the action/design. AF BELGRADE students (with 2 submissions) presented their final decisions, both group work and individual action/design, according to the vision, presented in one of the previous tasks and learning activities.

Figure 4.10. Submission by student Shelly-Ann O´Dea (DIT)

4.4 Blended-learning environment

Collaborative on-line and off-line learning activities started in September 2014 by the definition of learning activities and initial tasks and by the involvement of subjects available for the collaborative learning process. Partners combined their regular learning activities at home universities (detailed bellow) with on-line learning activities.

4.4.1 On-site activities

Each partner engaged available courses for integration to HRS learning space.

AF BELGRADE involved 2 teachers: Tatjana Mrdjenovic, Mirjana Devetakovic and 17 actively working students. The teaching activity, supported by HRS learning space, was an elective titled: OIKONET Habitat Regeneration Strategies. It was focused on the flood disaster regeneration strategies in the town of Krupanj (Serbia). The most important point in the process was the site visit, talking with representatives of the municipality of Krupanj and with citizens affected by recent catastrophic floods in the region. This visit was a base for discussions on possible strategies of regeneration. Another AF group of 3 teachers and 16 students joined the HRS learning space in January 2015.

FASTU integrated learning activities related to HRS learning space to its regular learning activities at the Faculty during winter term 2014/15 in obligatory subject Specialized CAD Design Studio (4th year Architecture and Urbanism). Involved were 3 teachers: Viera Joklova, Juraj Furdík, Ivor Mečiar and 101 students, working in groups. Most of the teaching was in English. The aim of the course was to analyse the case study, the identification of problems, research on the housing regeneration issues and development of regeneration strategies visions for the area, which was set in the Petržalka central development axis, around the water corridor of Croatian creek. This case study is solved by the VSUACE partner as well.

UGA integrated learning activities the HRS learning space to regular learning activities at the Institute during winter term 2014/15 in the subject Urban morphology (2nd year Geography, specialization in Town Planning). They solved the task on urban morphology and regeneration of riverbanks of four European case studies: Belgrade, Bordeaux, Bratislava and Nantes. This task allows understanding of contemporary urban design and planning solutions in relation to the specific geographical and historical context of each riverside city under scrutiny. Involved

were 1 teacher: Adriana Diaconu and 31 students. Students´ final designs were presented at a poster exhibition at UGA.

VSUACE Volgograd involved 2 teachers: Elina Krasilnikova and Larisa Kuzina and 5 actively working students in the bachelor design studio on Landscape Design. They solved the Bratislava Petržalka regeneration strategies in collaboration with FASTU students and teachers. Another group with 21 master students joined the HRS learning space in February 2015.

LA SALLE involved 2 teachers: Leandro Madrazo and Angel Martin Cojo for final video conference presentations of FASTU students.

DIT joined the HRS learning space in February 2015. In the regeneration strategies course coherent with the aims of OIKONET learning space is involved 1 teacher: Jim Roche and 19 students.

4.4.2 On-line activities

On – line learning activities supported the blended learning approach and consisted of the utilization of virtual environments for distant collaboration, working on common or similar learning tasks, sharing, reviewing and commenting submissions (by students themselves or by teachers) and providing structured learning materials (lectures, texts, links, examples, video-lectures). The most used tools for on-line activities were:

- OIKODOMOS Workspaces environment "Habitat Regeneration Strategies", (http://www.oikodomos.org/workspaces/index.php/workshops/preview/24) used for structured learning activities.

- Facebook Group: "OIKONET Habitat Regeneration Strategies", (https://www.facebook.com/groups/716510478414701/), used for spreading information about cooperation and activities in the Workspaces to a wider local and regional academic audience (the colleagues from Serbia, Albania, Hungary and Macedonia were invited to follow the activities).

- Adobe Connect videoconferencing system, used for on-line meeting of partners, on-line presentations, discussions, evaluations and recording the video lectures).

4.5 Collaborative activities

Presented activities capture the collaborative activities in HRS learning space in the period from September 2014 until January 2015.
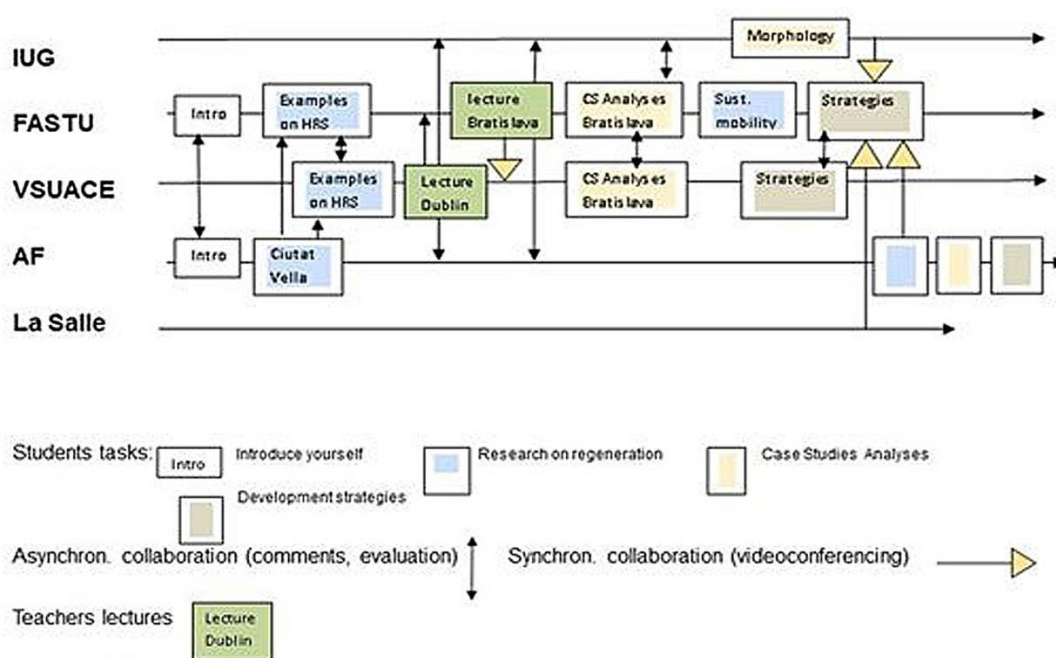
Figure 4.11. Collaborative learning activities in HRS learning space (09/2014 – 01/2015)

Collaborative activities started with the introductions of participating students, uploaded to Workspaces environment.

They continued by the research on habitat regeneration strategies, where the group of AF produced the example on regeneration strategies realized in Ciutat Vella, Barcelona. The outputs from this task were one of the sources for FASTU groups to elaborate the task on good examples on riverside regeneration strategies in the cities.

Significant contribution for this research featured the on-line lecture of Elina Krasilnikova on the topic: „The development strategy of Dublin. Urban development and regeneration of the urban district North Fringe in Dublin", recorded to task resources and available for other partners.

Later on Viera Joklova gave the on-line lecture on the topic: "Bratislava development strategies", which was important for VSUACE and UGA partners, which addressed the locality in Bratislava. VSUACE students and teachers were present on-line on the Adobe Connect video conference session and at the end they asked questions about the area and regeneration issues in Bratislava. The video lecture is recorded in the task resources and thus available for other partners.

Some interesting collaborative activities were detected between international groups of students (especially VSUACE, UGA and FASTU) when addressing the tasks on urban analyses. Students spontaneously commented the works of their peers and discussed the problems with each other. The deliverables of UGA students further offer participants in the Workspaces the possibility to identify and reflect on common patterns and specificities among European cities and their planning and design strategies for regeneration.

Collaborative activities within AF group were mostly Facebook Group based, with the communication and outputs in Serbian language, which increased the potential of involvement of local governments and non-academics to OIKONET learning activities.

Some of the final designs on conceptual models for regeneration development strategies of

FASTU groups were presented on-line, with the participation of teachers from UGA, LA SALLE, AF BELGRADE and VSUACE, commenting and discussing students' presentations.

In general, two methods were used for collaborative activities:
- asynchronous (when each partner followed its own learning programme and used OIKONET Workspaces, respectively Facebook Group environments, for sharing the learning/teaching materials, tasks´ outputs, evaluations and comments between each other);

- synchronous (when in particular cases partners joined distantly, using mostly the Adobe Connect videoconferencing for on-line collaboration).

4.6 Outcomes

Six university partners have actively joined the learning activities on the topic of Habitat (Housing) Regeneration Strategies until now, involving 14 teachers and 210 students for collaborative activities on the issue. Learning space supported the multidisciplinary approaches in the process of housing regeneration, so as the portfolio of participating partners is the spectrum of architecture, urbanism, strategic planning and geography.

Altogether 255 students´ submissions and 44 teachers´ resources documents were uploaded to the HRS Workspace. Students´ submissions distributed by learning partners are as follow: AF BELGRADE (36 submissions, additional 13 submissions are at Facebook Group HRS); FASTU (181 submissions); UGA (10 submissions), VSUACE (16 submissions); DIT (12 submissions).

Students´ submissions distributed by specific learning activities are as follow: LA: The Workspace Intro (43 submissions); LA: Urban Habitat Regeneration and Integrative Urban Design in Sustainable Development (60 submissions); LA: Creating Habitat Regeneration Strategies (142 submissions); LA: Habitat Regeneration Action (10 submissions).

Five videoconferencing learning sessions were realized, some of them were recorded to Resources documentation:

- Lecture by Elina Krasilnikova, VSUACE: "Dublin regeneration strategies", (http://enginyeria.adobeconnect.com/p2vkbqkzvmp/); partners AF BELGRADE and FASTU participated on-line.

- Lecture by Viera Joklova, FASTU: "Bratislava development strategies", (https://www.youtube.com/watch?v=KrsJBAexPaA); partners AF BELGRADE and VSUACE participated on-line.

- Video conference session between FASTU and VSUACE, responding the questions of VSUACE students on the case study analyses.

- Video conference session of the final presentations of FASTU students; on-line participated LA SALLE, UGA, AF BELGRADE, VSUACE.

- Video conference session describing the HRS Workspace and activities carried out between AF BELGRADE and DIT.

4.7 Evaluation of results

The first application of HRS collaborative learning activities from September 2014 until January 2015 brought both positive and negative observations.

A lot of students found the international learning experience motivating, encouraging and inspiring, it was interesting for them to know, what others like about their work. From their

comments in the evaluation questionnaire students expressed: "...it has been a great experience..., ...hope this system will spread among other subjects too..., ...very good project..., ...trying to support international collaboration between universities." At the same time, however, they expressed: "...only few comments from foreign students received..., ...we did not collaborate, there was no time for closer contact..., ...very time consuming method..., ...no feedback on given comments, no real exchange of opinions..."

Persistent problem seems to be with the reconciliation of partners´ regular learning activities with the collaborative learning activities at the HRS learning space. The learning process is usually affected by a number of variables inputs and learning partners during this process gained first experiences with the scope and learning/teaching approaches of their distant partners. Differences in schedules, learning and tasks approaches resulted in troubles with harmonization of collaborative activities. Learning activities and tasks were not properly planned before the start, they have been created during the teaching and reflected the actual needs and possibilities of participating partner. There seems to be too many tasks, some of them are very similar and could be joined; some tasks lack appropriate specification.

Partners experienced short time for designing and implementing the learning space; the original planning did not work as expected. Partners contributed in different ways, without necessarily sharing an overall view of the learning space (participating in final review, providing learning resources, commenting student's works).

Use of English was a problem. Some partners had students who could not use English; they uploaded works in other languages, this was not useful for collaboration. English should be imperative, deliverables in other languages are without learning value for other partners. As the conclusion, a requirement to post in OIKONET Workspaces in English, should be explicitly highlighted in the marking procedure.

4.7.1 Evaluation of student feedback

Student feedback was collected via on-line questionnaires (see Deliverable 6.3 for a comprehensive report). The main findings can be summarized as follows:

- Most students liked the task-based structure. The tasks had been well explained by the teachers, were clear, relevant, and followed a logic sequence: from analysis, through research, to final conceptual design

- They were satisfied with the OIKODOMOS Workspaces platform, but they felt that suggested that its user interface and structure should be improved (more intuitive, more attractive, and more innovative).

- They liked the possibility of receiving feedback through comments, especially from students and teachers coming from other countries. But they thought that having more opportunities to comment, share views and exchange recommendations would have further enhanced online collaboration.

- To create real international collaborations, collaboration should not be limited to commenting on people's work. Students suggested creating video presentations and either streaming them live or recording them, sharing them over the platform and then having a live-stream follow-up discussion.

4.8 Conclusions and further steps

The topic of housing regeneration is attracting new partners, so the continuation of collaborative activities in this learning space will continue to take place in the coming semesters. For summer term 2015 partners planned to continue in collaborative activities in

HRS learning space. AF BELGRADE will participate with the design studio named "Resilient city and housing". VSUACE will join with master students on urban design studio on urban regeneration of Bratislava Petržalka. UGA, FASTU and LA SALLE will join with teacher's comments and evaluations of students' work. DIT Dublin, Universidad Politécnica de Puerto Rico (UPPR) and University of Thessaly (UTH) will join as newly incoming to the learning structure of this learning space with their learning activities.

Reference documents uploaded in OIKODOMOS Workspaces can be used further for collaborative learning activities. The members of the subnetwork Housing Research could help to increase the knowledge base adding new resources related to urban regeneration and public participation. Researchers could also help to define the tasks, so they can become co-designers of the learning processes. Also, this learning space can facilitate the creation of ties with the subnetwork Community Participation.

The topic of housing regeneration strategies will be the theme of the second OIKONET international conference, which will be held at FASTU Bratislava on 24-25 September 2015 (http://oikonet-conference-bratislava.blogspot.com.es/).

5 THRESHOLD MATTERS

by Tomas Ooms, KU Leuven- Faculty of Architecture, Gent/Brussels, Belgium

5.1 Introduction

The "Threshold Matters" (TM) learning space was created in the spring semester of 2013/14, as a joint initiative of the Faculty of Architecture KU Leuven, Belgium, and Gebze Technical University, Turkey. Soon after the Dublin Institute of Technology (DIT), Ireland, and Bialystok University of Technology (BUT), Poland, joined the learning space.

This first implementation of the learning activities planned took place already in the spring semester of 2013/14, and a second has taken place in the fall semester of the 2014/2015. KU Leuven, GTU and School of Architecture of Valencia, (ETSA-UPV), Spain, participated in this second edition. As we are writing this report, DIT is integrating some of the "Threshold Matters" activities in their spring semester design course (see also 5.8 Conclusions and further steps).

The meetings held during the meetings of the subnetwork Pedagogical Activities in Lisbon in July 2014 represented a turning point in the development of the "Threshold Matters" learning space. During the meetings there was time to reflect on the experience of the first edition of the learning space and to assess its relevance for the OIKONET project (i.e. Learning design, Integration of shared learning activities in the academic programs, Blended learning). Besides, there was the opportunity to learn from the experience of the other learning spaces that were reported during the meetings. One of the relevant outcomes of the meeting was the learning design template that should be used to describe a learning space before it starts to be implemented. The learning plan and objectives can be found in the Appendix.

5.2 Topic

 "The threshold provides the key to the transition and connection between two areas with divergent territorial claims and, as a place in its own right, it constitutes essentially, the spatial condition for the meeting and dialogue between areas of different orders" (Herman Hertzberger)

Threshold is an ambiguous zone often described in planning terms as 'public/private' or 'private/public', a zone in housing that affords options for socialising and amenity, a place to meet neighbours and for children to play. That zone in architecture between the public and private domains is often ambiguous, having many layers and meanings with associated varied treatments across different cultures and climates. The boundaries that legally define property for example do not define visual privacy. In housing, threshold represents a series of transitions between the very public realm of the street and the very private world of the dwelling.

Acknowledging that the issue needs to be understood from multifarious perspectives - sociological, theoretical, spatial / sectional ideas to construction systems and textural / material treatments - a range of learning activities and tasks were developed for students.

5.3 Implemented learning activities

This report primarily focuses on the fall and spring semesters of the 2014/2015 academic year. During and immediately after the Lisbon meetings, a programme was established using the Learning Design Template. The Learning Activities and Tasks were agreed jointly by GTU,

KUL, DIT and ESTA-V under the coordination of KUL and GTU.

The following learning activities and tasks have been implemented:

- LA: EXPLORATION OF CONCEPTS

- TK: Visual Impulses
- TK: Getting to Know the Platform
- TK: #Threshold Matters
- TK: Thresholds in parallel
- TK: Architectural Review
- TK: Getting to Know the Platform alt. Take
- TK: Architectural Review alt. Take

- LA: URBAN CT SCANNING / URBAN TOMOGRAPHY

- TK: Urban Tomography
- TK: Urban CT Scanning written to graphical

- LA: A MICRO PERSPECTIVE: THE "CASE STUDY"

- TK: Design assignment: A Moment Between U & I
- TK: A Lonely Mans's Shelter
- TK: A cut-away sectional axonometric exploring threshold treatments in students' designs

LA "Exploration of Concepts" focused on discovering and 'uploading' pre-defined concepts relating to Thresholds. This particular learning activity sought to explore a number of concepts with respect to the architectural expression of the philosophical background of the different concepts. The keywords for this learning activities were: Knowledge Mining; Thresholds; Spatial and Social Patterns; Interfaces.

The second LA was "Urban CT Scanning / Urban Tomography". It is the revolving point of the sequence of LA's and TK's.

This particular Learning Activity sought to investigate, through Urban Tomography of the urban realm within housing settlements (and/or detail studies of threshold spaces on particular project sites), the architectural expression of the concepts that were explored in the LA Exploration upon Concepts. Urban Tomography is a term for image making by sections or sectioning.

Keywords for the LA "Urban CT Scanning / Urban Tomography" were: Mapping; Boundaries; Thresholds; Urban Analysis, Section.

The third LA entitled "A Micro perspective: the case study" concluded the Threshold Matters Learning space. The goal was to somehow challenge prevailing perceptions of how to relate projects to the public domain. Inspired by the research undertaken in the previous LAs, the students were required, through the use of sections, to develop a design that exemplified their new understanding of "Threshold Matters". Keywords for this LA were: Design, Spatial reflection.

What follows is the description of the processes involved to carry out the above tasks, the collaboration between the partners and the kind of outcomes and interactions between the

students themselves and between the students and the teachers.

- LA: EXPLORATION OF CONCEPTS

- TK: Visual Impulses. The activities started for GTU students with TK1 Visual Impulses. This task was completed by GTU students as part of their design studio. The results were uploaded in the OIKODOMOS Workspaces platform and ETSA-UPV made comments on the work.

- TK: Getting to Know the OIKODOMOS platform

This was the first task of the learning space. KU Leuven and GTU students explored various outputs in different OIKODOMOS Workspaces and commented on them. The comments were prepared by students and reviewed by the teacher before being posted to the Workspace. The goal was to get to know the ICT platform on which they would need to work and to learn how to formulate a constructive comment.

- TK: #Threshold Matters

KUL students selected four of the concepts explored in the description of LA56 Explorations upon concepts of "Threshold Matters" and briefly researched them, condensing each one into a 140-character description through which they showed their understanding and interpretation of that concept. The messages were posted on the Workspaces and some were selected and communicated on the TM twitter account.

The output was discussed by GTU students and then commented on using a maximum of 25 words.

A comparative analysis between the discussions in the GTU Studio and how KUL Students cover the issues will follow.

ETSA-UPV students read the descriptions and looked for a new text (from the theories of architecture) to complement it. They did so through making a constructive comment.

Figure 5.1. Extract of the final Update 3.0: a report by student Nele Santy containing the work of student

Mustafa Özdemir

- TK: Thresholds in parallel

A series of design workshops was organised in order to orientate the second year architecture students of GTU to consider the challenge of relating form and function on a given site. The GTU students were asked to consider one particular space in Uskudar and in particular the notions of: the ground, the wall and the canopy. The work was done through making models and supported by sketches. In a joint Skype meeting KUL students reflected on the uploaded work.

- TK: Architectural Review

This task built on the relation between the topic of the learning space and the existing OIKODOMOS Case Repository (a product from the preceding OIKODOMOS project). The students selected an architectural project that relates to the topics they discussed in the #Threshold Matters. As a result, a graphic review was proposed on how the selected project related to the #Threshold Matters concepts.

ETSA-UPV students looked for another project that relates to the same topic and gave that as reference to the KU Leuven students. In their turn, KU Leuven students reacted to those proposals leading to a short conversation (ref. Joachims Affordance).

Figure 5.2. Extract of the final Update 3.0: a report of different tasks produced by student Nele Santy containing the work of student Joachim Bekkers on the left. On the right some of the comments posted by students from ETSA-UPV

- TK: Getting to know the platform - alt.take

DIT students firstly attended an on-line introductory seminar on Urban Tomography delivered by Tomas Ooms of KUL. They were then asked to log on to the OIKODOMOS Workspaces, upload their photos and explore the tasks and the work already done in the fall semester of 2014/2015 by students from KUL and GTU. Each student was required to make a short comment or ask questions on two of the projects. In addition, teacher

Jim Roche of DIT commented on some of the work done by KUL and GTU students.

The intention here was to encourage the DIT students to begin considering the issue of threshold in its various layers and meanings and to learn through reflection and collaboration.

Example of comment by Walsh, Ailbhe from DIT to this study by Kwinten Delvaux from KUL (final output of TK12) A moment between U and I):

Hi, your project is very interesting. The series of layered thresholds you set out appear to create nice intimate spaces which your axonometric drawing visualises proficiently. It could be interesting to further explore the proportions of the thresholds in the way you have already done with the frames.
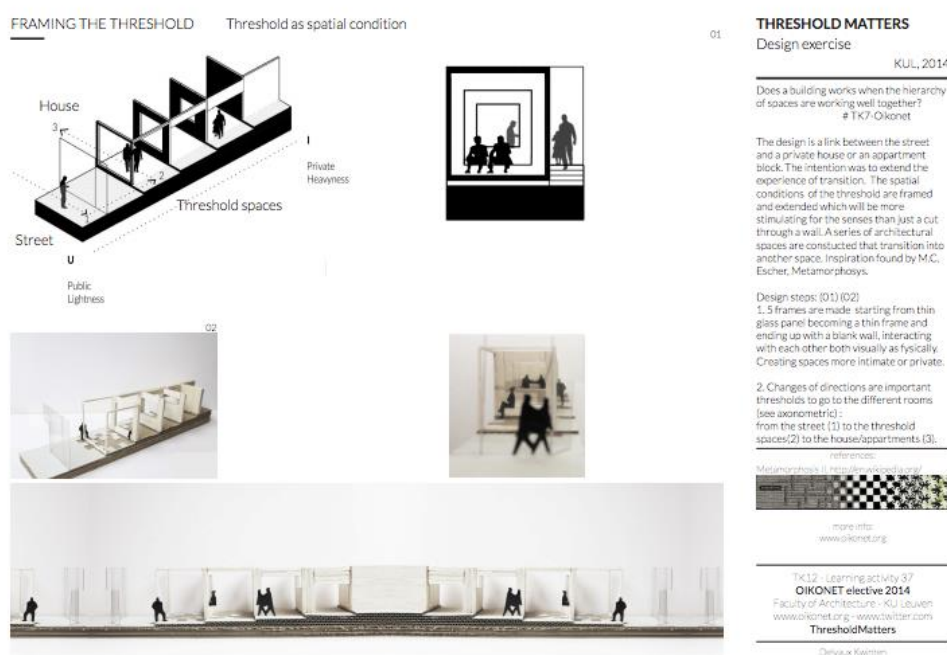
Figure 5.3. Example of final output by student Kwinten Delvaux

- TK: Architectural Review - alt. take: Review of an existing threshold

DIT students were then asked to study an appropriate precedent of threshold in housing and present it graphically on one A3 sheet to include at least one photo, one sketch, a maximum 100-word commentary explaining how it relates to the stated criteria of this learning space. They then had to respond briefly to any comments made by collaborating students / teachers from other institutes.

THRESHOLD MATTERS | PRECEDENT STUDY | MARK REDMOND | D10119873

In this 17th century painting by Pieter De Hooch of a boy in a doorway handing a woman a basket you can clearly see a deep and delibrate threshold that is in everyday existance. Van Hooch paints a series of Thresholds, from the chair in the corner to the mat to the step down into an outside space, step up into the shadows across to a street then across a canal to the neighbour staring back at you.

A BOY HANDING A WOMAN A BASKET IN A DOORWAY |
PIETER DE HOOCH | 1663

SECTION THROUGH SPACE

Figure 5.4. Submission by student Mark Redmond

In this 17th century painting by Pieter De Hooch of a boy in a doorway handing a woman a basket you can clearly see a deep and deliberate threshold that is in everyday existence. Van Hooch paints a series of Thresholds, from the chair in the corner to the mat to the step down into an outside space, step up into the shadows across to a street then across a canal to the neighbour staring back at you.

- LA: URBAN CT SCANNING / URBAN TOMOGRAPHY

- TK: Urban CT Scanning / Urban Tomography

Students from the Faculty of Architecture KU Leuven explored and researched the possibilities of Urban Tomography. The concept of Urban Tomography was introduced through a lecture. The lecture was made available as a resource on Workspaces and repeated over Skype at GTU and ESTA-V. Within this task the students produced a series of sections on a selected urban site that highlight the issue of threshold on an urban level. As the students explored the opportunities of Urban Tomography they also selected sites. Thus the possibility to link to their Master Dissertation emerged.

Students from GTU studied the Urban Tomographies from KUL and formulated questions. GTU had to perform Urban Tomographies on their own site and they could learn from the work done by the KUL students. The questions were posted on the TM FB group and discussed during a joint Skype meeting in which all KUL students, GTU students and a teacher from LA SALLE participated.

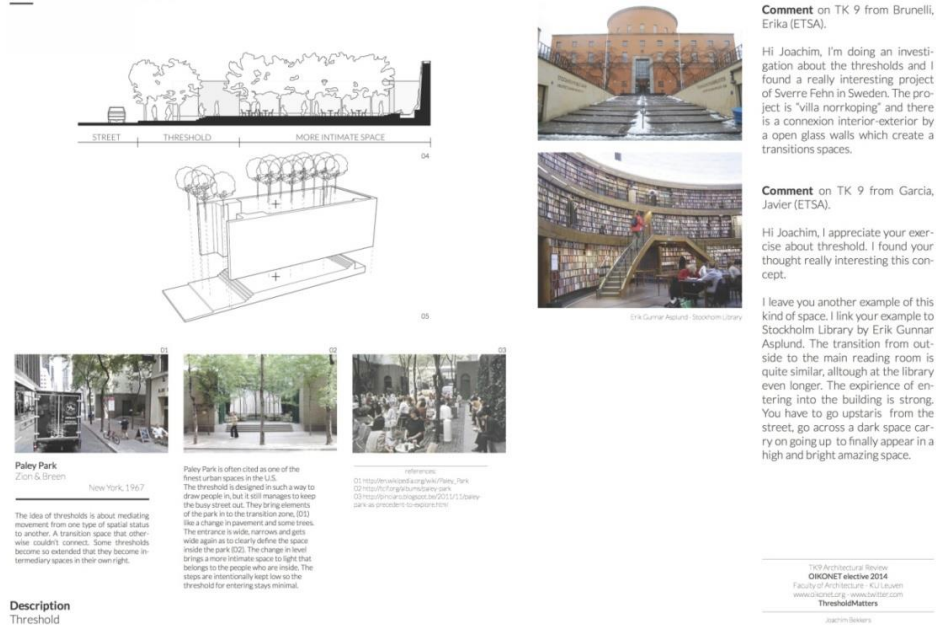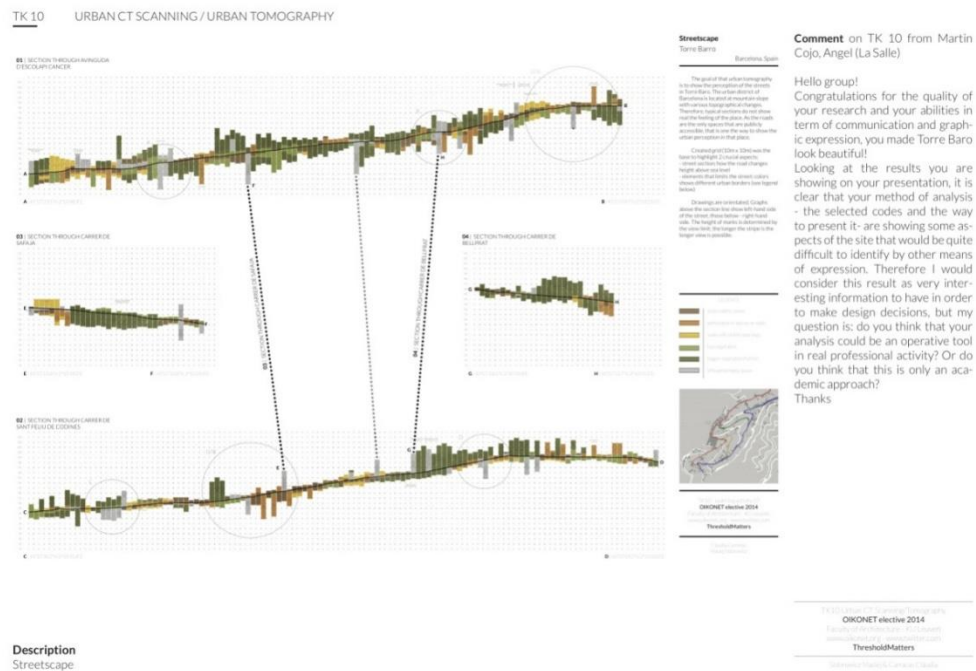*Figure 5.5. Extract of the final Update 3.0: a report of different tasks produced by student Nele Santy and containing the work o fstudents Clàudia Carreras and Maciej Sidorowicz (left) and comment by Angel Martin (LA SALLE teacher)*

This Skype session served as a kind of review. This session was also used to generate feedback on the GTU results of TK Threshold in Parallel.

As noted above the lecture on Urban Tomography was held for ESTA-V students on November 11 and on November 14 at GTU. The results from the Urban Tomography explorations showed that they are useful mechanisms for developing knowledge and understanding about a site. A possibility worth exploring in a future learning space could be to start using them as a design tool.

LA SALLE formulated comments on the uploaded Tomographies as did the GTU students. This LA overall proved to be extremely successful and will very likely lead to a further related one.

Figure 5.6. Screenshot of the Threshold Matters Facebook group showing the Skype on-line –review in progress and indicating the number of people reached (71)

- TK: Urban CT Scanning written to graphical

A series of sections was produced by GTU students in the Urban Tomography manner regarding the concepts that were tackled by KUL students in a previous task. A3 posters were designed for the case study area of Uskudar/Istanbul (linking to the result of previous task).

- LA: A Micro perspective: case study

- TK: Design assignment: A Moment Between U & I

Through this assignment, students could question our contemporary way of relating projects to the public domain. Primarily through the use of sections and guided by their research interest developed in the previous tasks, they designed a space that exemplified their understanding of "Threshold Matters". The final output is a model and a 3D section. For this they could work on a specific existing site or in a more theoretical abstract context
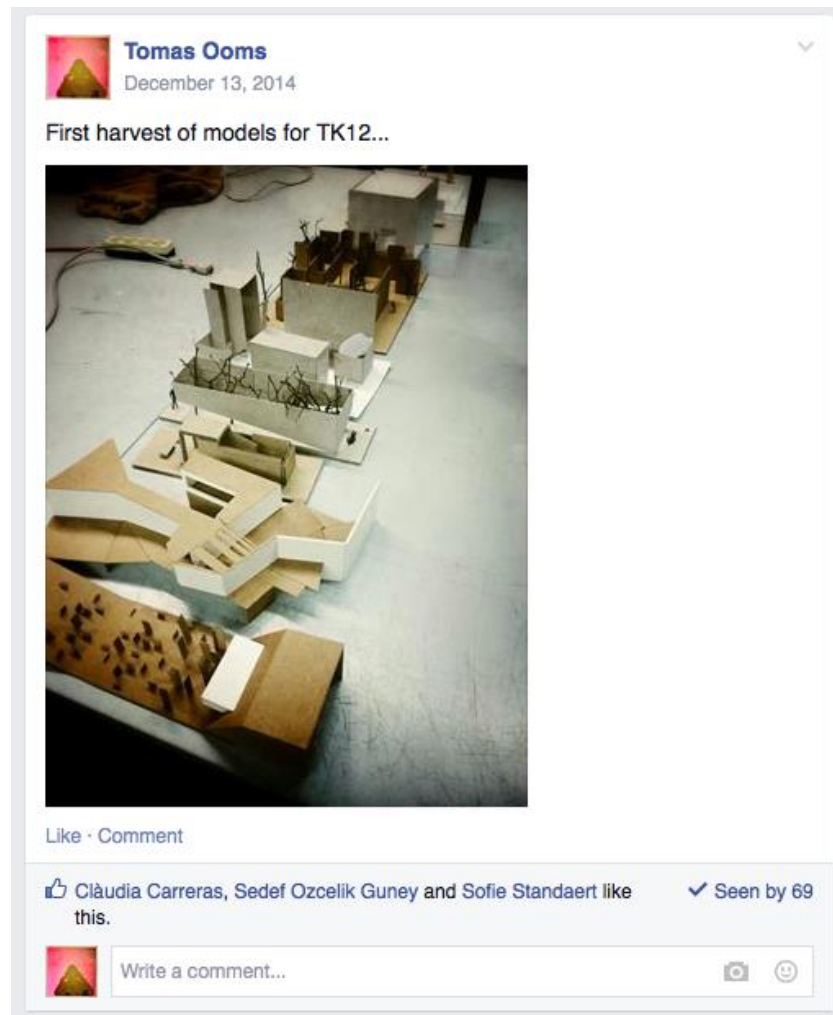
Figure 5.7. Screenshot of the Threshold Matters Facebook page showing the first version of the models produced one of the tasks. It shows also the number of people reached (69)

The process was followed during the OIKONET elective seminars and the final designs were uploaded in OIKODOMOS Workspaces.

Students from Valencia (ESTA-UPV) were asked to reflect on their own studio design assignment from the perspective of other schools. ESTA-UPV had to select one of the spaces of their design project that related to one of the research topics (concepts) they explored by following the KUL students work track. The students from Valencia have been working on an existing building from the 1960's called Virgen del Carmen.
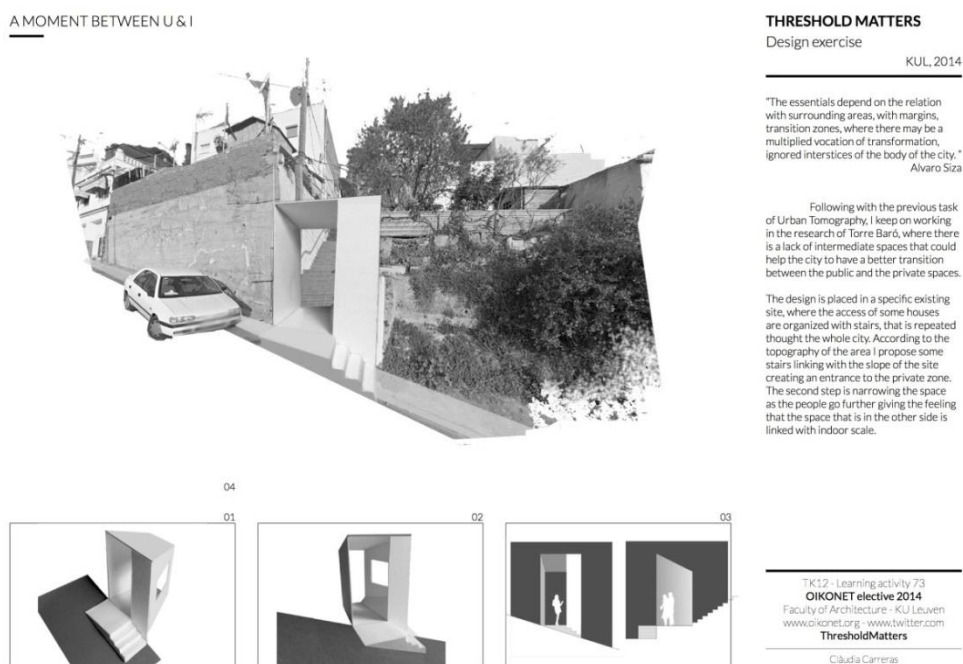
Figure 5.8. Final output by student Clàudia Carreras

- TK: A Lonely Mans's Shelter

The students were required to design a "Lonely man's shelter" that aspires to utilise thresholds as a means for the user to interact with the everyday public life of Uskudar. An A2 poster containing the design proposals and conceptual approaches was uploaded on the Workspaces.

- TK: An axonometric reading of thresholds in housing

At time of writing this report DIT students were required to complete a cut-away sectional axonometric of one of the key threshold spaces in their timber housing scheme identifying the textural treatment of surfaces and to present this graphically on one A3 sheet to include a maximum 150-word description and 2 or 3 other key drawings of their scheme showing their attitude to threshold. A pdf of this A3 study is to be uploaded to the Workspaces. Students are also required to respond to any comments made by collaborating students / teachers from other institutes.

Concluding the learning space

KUL students had a final meeting on 13 February 2015. The meeting took place in the offices of CONIXRDBM architects in Brussels (BE). Its purpose was to close the OIKONET elective course with a final reflection on the latest outputs. A report of this meeting was produced and uploaded in the bulletin board of the Workspaces. There were 12 students present. In addition to the discussion on the WS the students visited the offices of the architectural firm that was hosting the meeting. With that meeting the first full run of the TM learning space was concluded. The final review of the DIT students' work occurred on Tuesday 14 April with Tomas Ooms as guest critic

5.4 Blended-learning environment

The activities have been carried out in the classroom as well as in the on-line learning environments.

5.4.1 On-site activities

The "Threshold Matters" learning space was active in different institutions and in different environments. A short description on how it was imbedded in the curricula is given in 'Collaborative activities'.

5.4.2 On-line activities

OIKODOMOS Workspaces was used to structure the learning activities and to organize the collaborations in between different partners. Both the comments and the shared tasks were submitted on OIKODOMOS Workspaces.

The OIKODOMOS Case Repository was used in TK Architectural Review to create collections that illustrate different Concepts of Threshold. The results of this task were also submitted on OIKODOMOS Workspaces to be shared and commented by teachers and students from other institutions.

A Twitter account was created linked to TK # Threshold Matters: https://twitter.com/ThresholdMatter. Through this account the one-liners produced by students in the context of this task were broadcasted.

Figure 5.9. Screenshot from the Threshold Matters Twitter account

A Facebook group "Threshold Matters" was created as a communication platform complementing the OIKODOMOS Workspaces. The posts ranged from sharing of questions and information to updates on the on-going work, reminders for approaching deadlines and posting of final results.
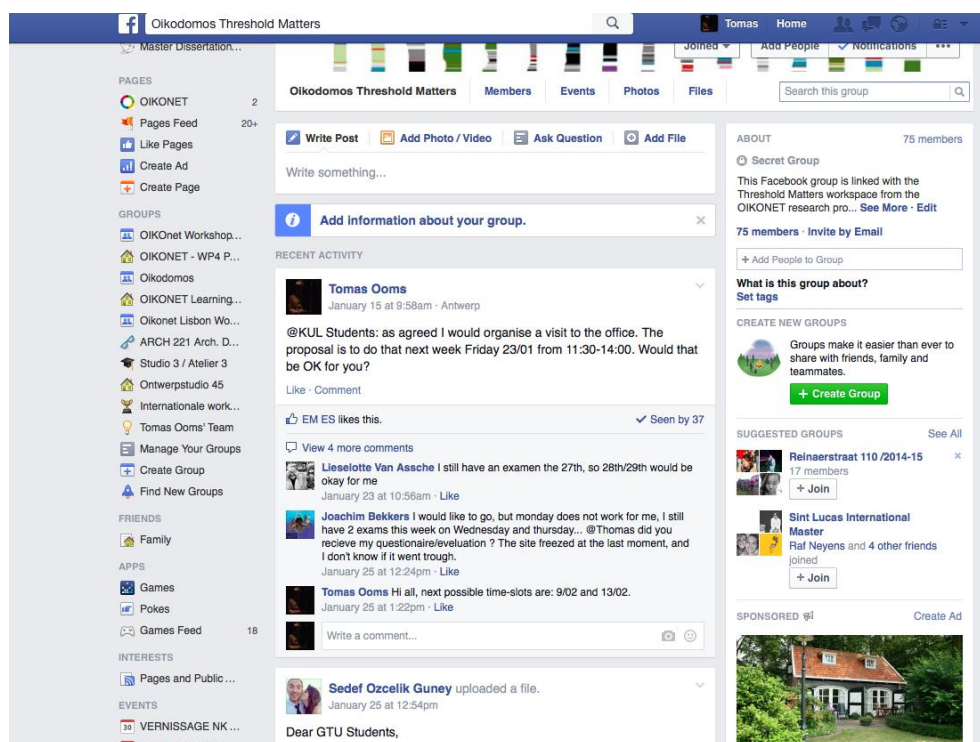
Figure 5.10. Screenshot from the Threshold Matters Facebook group. The group has 75 members and contains 100+ entries

Skype was used between the teachers to have regular updates and coordination meetings, to deliver lectures and to host one on-line live review

5.5 Collaborative activities

Students with different profiles participated in the "Threshold Matters" learning space. The KUL master students, since they were the most advanced in their learning, took the lead and were generally the first to work on most of the tasks. In this way they could inspire the other students participating in the learning space. The GTU second year bachelor students, learned from and followed the approach of the KUL students. The ESTA-V Master students followed the process and progress of the learning activities.

At the Faculty of Architecture of the KU Leuven the OIKONET activities are embedded as an OIKONET elective course. Our previous experiences with the OIKODOMOS pedagogic model showed us that a coherent and full integration of the OIKONET pedagogic activities in the curriculum is a necessity to ensure success. As it is an elective course, Master students from Architecture and Interior Architecture can inscribe. In total 15 students selected the course thus filling the course completely. It is organised as a design seminar based on interaction and collaboration in the context of the OIKONET project. The elective is linked to the international workshop and to the international OIKONET conference. The course grants 5 ECTS credits. The course is designed as a stand-alone course but during the implementation of one of the tasks (TK "Urban Tomography") the opportunity to inform the Masters dissertation of the participants emerged.

At ESTA-UPV the learning space was linked to the "Recycling of public space and urban design" course, which is part of the "Architecture and sustainable habitat" Master (MAAPUD) leading to 7 ECTS. The students worked in groups and the assessment of the group work comprised 85% of the final individual rating. The remaining 15% is related to the outcome and participation in the OIKONET platform. Participation in the learning space has mostly been

established during class time.

At GTU, within the design studio teaching agenda, the concept of "dwelling" is tackled in the fall semester for the second year undergraduate students every year. For the formulation of the single house design, functioning of a dwelling with respect to the user and urban interventions regarding the integration of the house with the urban setting; the GTU design studio applied a "folded design teaching" method. That method was crucial since the learning process continued both in the design studio as a "hands on" action as well as a virtual common learning space shared on the OIKONET platform via OIKODOMOS Workspaces

At DIT the TM learning space was introduced to 18 fourth year architecture students as a series of tasks related to their current housing project in Waterford city. Following a Skype lecture from Tomas Ooms of KU Leuven, the students embraced the issue of threshold by initially making comments on work done by the KU Leuven students in the first semester. They then studied a relevant threshold precedent and uploaded it to the TM learning space with a short commentary and answered any comments left by other students or teachers. At time of writing they are preparing a 3-d exploratory drawn study of a threshold space in their housing scheme to be uploaded with commentary to the TM learning space. Overall the combined tasks of the TM learning space represent 8% of the total grade for their housing project.

5.6 Outcomes

15 students from KUL uploaded 104 deliverables in 5 tasks and made numerous contributions in other tasks, other learning spaces, and social media.

GTU integrated 44 students that uploaded 15 deliverables in 4 tasks and made contributions in other tasks, in other learning spaces, and in the social media. Because of heavy snowfall in Istanbul the timing to perform the planned activities was disturbed. Towards the middle of the activities the number of participating GTU students was reduced to the 3 students that were selected to participate in the COTTBUS workshop.

ESTA-V collaborated with 13 students uploading 9 deliverables in one task and made numerous contributions in other tasks.

LA SALLE participated with one teacher in the Skype review and in commenting on TK Thresholds in Parallel and TK Urban Tomography.

In DIT, 18 students participated in 3 tasks and one lecture on Skype. The participation is still ongoing.

Some learning resources facilitated to students can be useful for future editions of the learning space. They are available in the RESOURCES area of the OIKODOMOS Workspaces and/or on the Facebook Threshold Matters group.

- Bibliography related to Threshold Matters:

- Building a Theatre that Remakes Itself, Joshua Prince-Ramus, TED talk Oct 2009;

- The Production of Space, Henri Lefvebre;

- Experience and Use of the Dwelling, PERLA SERFATY-GARZON;

- Lessons for Students in Architecture, Hermann Hertzberger, 1991.

- Hermann Hertzberger, 1959-86, Buildings and Projects, 1987.

- Urban Tomography, Lecture by Tomas Ooms;

- Skype review between GTU, KUL and LA SALLE (see TK10 Urban Tomography).

5.7 Evaluation of results

One of the focus points of the OIKONET project is the opening up of what is going on within a learning space to a broader audience. As a first step and experiment a reporter (or media manager) was appointed. This student was exempt from the tasks but was present at all OIKONET seminars and followed the on-line activities. In her role the reporter managed the twitter account and the Facebook group. During the semester two issues were released. These are a kind of newsletter reduced to one A4 enabling a short and fast reading. For the reporting at the WP4 meeting in Istanbul a full visual overview of the activities of the "Threshold Matters" learning space was delivered.

Figure 5.11. Issues 1.0 and 2.0 produced by the student reporter and distributed through the social media and e-mail

From experience we knew that email is useful in co-ordinating and collaborating only to a limited extend. Therefore, most emails that were exchanged between the participating teachers were for setting dates for Skype meetings.

To introduce the notion of Urban Tomography to students of GTU and ETSA-UPV, two Skype lectures were organised. The presentation was sent using WeTransfer and was displayed at the other institutes while the lecture was delivered over Skype.

During "Threshold Matters" a Social Virtual Event was attempted in order to bring the different students together. So far this was not accomplished due to a lack of a proper ICT tool for this (not to our knowledge). As a compromise a Skype discussion / review was organised between the students of GTU and KUL and a tutor from LA SALLE, as described above.

For fast and easy communication and notification a closed Facebook group was set up. Students and teachers used this group FB to communicate, post questions, post links and incentives. The closed group has 76 members from three faculties.

To ensure a good understanding of the outputs and enhance their communicative aspects, templates were produced by the students.

Within the different courses in which the "Threshold Matters" learning space was embedded a number of input lectures were organised. The slides of these lectures were made available for the students and teacher using the resources section on the Workspaces. A next step would be to record the lectures and make them available as video lectures.

The coordinator of the learning space continued to act as moderator during the development of the learning activities. In this role he/she did a follow up of the tasks, contacted partners regarding deadlines, involvement etc. and talked to the students and guided colleagues in using the platform and OIKONET method and tools.

5.7.1 Evaluation of student feedback

An on-line survey has been sent to all participants of the Learning Space (LS) "Threshold Matters" at the end of all activities. 8 students (out of 15) from KU Leuven - Sint-Lucas (Ghent) and 10 (out of 13) from Universidad Politécnica de Valencia (UPV) answered the survey giving a total of 18 answers (see Deliverable 6.3 for a comprehensive report) The main findings can be summarized as follows:

- In general, the feedback provided was very positive and included interesting suggestions and reflections.

- Students agreed on the fact that the collaborative learning experience was well integrated in the general program of their school. They thought that many tasks were useful also for other courses they had. They particularly valued the exchange of knowledge with students from other institutions. The learning experience allowed them to open their minds.

- They enjoyed reading and writing comments even though they considered collaboration by commenting too limited. To improve collaborative learning students suggested various improvement activities including having more small-scale communications with the other students in order to improve the feeling of real international collaboration.

- When asked about how useful the OIKONET Workspaces was, students responded that the collaborative learning was a bit forced and unnatural. With regards to commenting, students actually preferred the feedback of their own teacher and classmates and considered the ones on the platform less useful because they were mainly very positive and lacked in critical suggestions.

- However, most students noted that they would be happy to repeat such a collaborative learning experience. They expressed certainty that with each experience, it can be further improved and that the future of learning goes in this direction as it is a way of getting a broader and more varied perspective on the treated topic.

- ETSA-UPV students noted that the collaboration has been interesting because of the possibility to comment and interact with other students.

- The presentations from KUL students were based on custom made templates. This was considered very useful because it allowed for an easier lecture of the contents. The tasks were very concrete and this facilitated the understanding. KUL kept strictly to the planning and this has allowed the interactions and reactions to occur in an efficient and effective way.

- For the learning of ETSA-UPV students it has been very important to experience the different ways of working and the presentations of the final works. The whole "Threshold Matters" context allowed for a broad and deep reflection on the concept of threshold.

5.8 Conclusions and further steps

During the WP4 meeting in Istanbul DIT expressed an interest and ambition to continue with the "Threshold Matters" learning space. New tasks have thus been created through which the results of the TM will serve as input and inspirations to the DIT students. This is on-going as this report is being written.

DIT have linked a design studio course to the TM learning space as described above.

"Threshold Matters" was a successful pedagogic experience that generated some unique results that could lead to developments in other courses, mainly regarding Urban Tomography. The fact that DIT is currently performing the alternate take is also a good indicator for how this learning experience has inspired new pedagogical practices.

As outlined above, the use of the reporter proved to be an important element in opening up the learning space. Through this, links to partners, collaborators etc. were easily established. There is the possibility to extend and investigate how this reporter could be a key figure in constructing a link to the broader academic field and to the general public.

When we organise international workshops it is advisable to introduce these with a social event through which the participants get to know each other. It could be beneficial to the blended learning aspect of the OIKONET project if such an event could be organised at the start of a new learning space. It remains to investigate what (ICT) tools could be used for this.

In this context a cross country task or task(s) could be integrated at the beginning of the learning activities to introduce the collaboration.

Including the WP2 and WP3 subnetworks is definitely another point that needs attention. In that context and in general it should be noted that it is difficult for partners to join a running learning space in the midstream. It is more beneficial for all to be involved from the start (i.e. learning design phase).

The most serious risk to the methodology being carried out in OIKONET is that the learning design can lead to a tight framework with not a lot of room for manoeuvring for modifying tasks, adjusting the sequence, skipping things, adding tasks etc. However, the experience gained will help establish future methodologies.

Predominantly the learning design, as it was developed and structured before the start of the TM learning space (see Appendix), was followed strictly. This enabled a good follow up and allowed for a maximum of planned collaboration and interaction. Some extra activities and 'meetings' were organised (Skype lecture, Skype review, office visit etc.…) to support the learning activities in the workshop.

In conclusion it should be noted that despite certain difficulties the interaction and the results so far of the "Threshold Matters" learning space demonstrate that this project is above all a great opportunity to create an innovative learning atmosphere across an academic network that is beneficial for the students and the lecturers alike.

6 HOUSING SYSTEMS

by Leandro Madrazo & Angel Martin Cojo, School of Architecture La Salle, Barcelona

6.1 Introduction

The learning space Housing Systems was implemented for the first time in the fall semester of the academic year 2014/15. The initiative came from the School of Architecture La Salle as part of the elective seminar "Research on contemporary housing". Other partners were invited to join the learning space. University of Cyprus collaborated with a postgraduate student and a teacher from the School of Architecture of Valencia collaborated as reviewer of a task.

After the seminar at LA SALLE ended (in January 2015), the University of Thessaly (UTH) and the Dublin School of Architecture (DIT) continued working in the next semester, developing new tasks and using the results of the seminar at LA SALLE as learning resources for their students. University of Thessaly (UTH) introduced ideas and tasks in the course "Architectural Design II" (second year compulsory course). Teachers from LA SALLE introduced UTH and DIT staff to the methodology of the learning space.

6.2 Topic

The purpose of the seminar was to introduce the concept of housing system. Understanding housing as a system means to take into consideration –all at once–: 1. the components that make a particular system (not only the physical elements such as structural components, but also the dwellers that inhabit the spaces) and 2. the interactions between the components (between structural components and building envelope, between dwellers and spaces). This notion of housing as a system can be traced back to the work of Habraken and the SAR group in the 1960-70s. Nowadays, the notion of system pervades in the Open Building movement.

Understanding housing as a system implies dealing with issues such as industrialization and fabrication (mass customization), dwellers' participation, and adaptability. The application of ICT to the housing generation enables to address generative modelling (rule-based systems, parametric design).

6.3 Implemented learning activities

The following activities were carried out during the fall semester of 2014/15 (see leanring plan in Appendix):

- LA: UNDERSTANDING HOUSING TYPES. The objective of this Learning Activity is to explore the concept of Housing Type and its relevancy on contemporary domestic architecture.

> **- TK: Create a Housing Collection**. Identifying housing projects in the OIKODOMOS Case Repository according to some specific criteria (the built-in taxonomy of the case repository). Some relevant issues of contemporary architecture - such as Diversity, Sustainability, Diversity, Prefabrication and Mixed-use- have been identified, described and illustrated by the students.
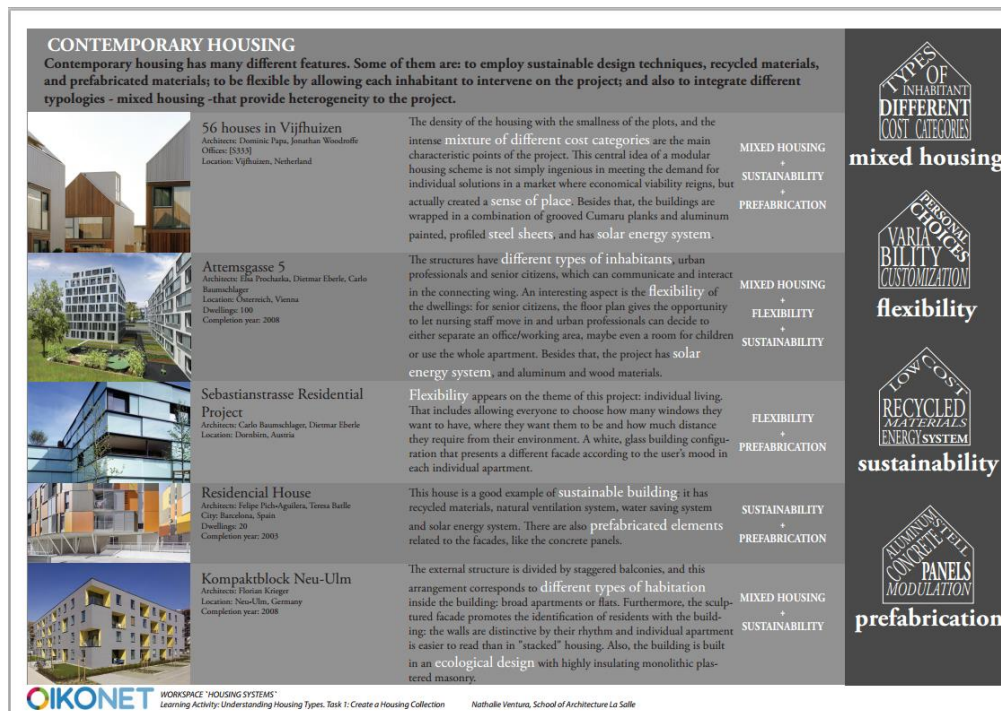
Figure 6.1. Submission of Task 1 by the student Nathalie Ventura (LA SALLE)

This task was done by LA SALLE and University of Cyprus students. Students could comment on the outcomes of this task. For instance, some of the comments discussed if contemporary housing should fulfil the criteria identified in these examples.

Example of comment by Andronicos Kalli from University of Cyprus:

I believe your poster is discussing some of the most important issues of contemporary housing: adaptability to life and climate changes, adaptability to its users and a redefinition of the boundaries between the public and private realm.

According to example 2, housing architecture is not a static process or a finished deliverable product! It is an adaptable system which takes in consideration social issues and its users need. So how do we design systems that have the flexibility to include decisions made by the users? Can the architect design and predict future needs?

About example 4, I would continue your analysis to recognize how the architect uses vegetation and typology to control privacy between the apartments in a complex and the surrounding of an urban context. Have a look at it in the plan and section, very closely and it can provide you with very strong design tools for your proposal later on...

- TK: Create a Housing Case Study. The activity consisted in searching in the Case Repository for a case study representative of some of the contemporary domestic architecture themes identified on the previous task. The case studies were documented on both the OIKODOMOS Case Repository and Workspaces.

Figure 6.2. Submission by student Davide Serrazanetti (LA SALLE)

Students could comment on the outcomes of this task. For example, what they find meaningful in the proposed example: is it a good example of contemporary housing? Why?

- TK: Reflecting on the topic of Housing Types. The activity consisted in writing a short essay summarizing the concept of type in architecture based on the knowledge acquired in previous tasks and in the readings of a selection of texts. The students summarized and compared some aspects related to the discussion about type described by the following authors: Rafael Monéo, Jeremy Till, Leandro Madrazo and Adrian Forty.

The outcomes of this task were discussed by teachers from other schools. They formulated questions to students, to make them continue thinking about the issues they had identified.

Example of comment of Carla Sentieri from ETS Arquitectura de Valencia: Hi Davide,

I recommend you to read the book: "Las variaciones de la identidad" de Carles Martí, you can find a reflection about the concept of type.

http://fundacion.arquia.es/es/fundacion/Noticias/Detalle/201

I think the discussion is: when does Monéo start the process of the project? I think he uses the type as a tool for solving formal relations: "the idea of the type as a cognitive process whereby reality of architecture reveals its essential content, and as the same time as an operating method on the act of projecting." (Carles Martí)

As you say, the idea of "type" must be use as a tool for improving our projects, not something where start or arrive. If someone arrives to a new conceptual map of relations, never seen before, then it is necessary to look for another "solution" and perhaps this solution will be a type, but the most important thing is the COGNITIVE

PROCESS.

- LA: INTRODUCING HOUSING SYSTEMS. The objective of this L.A. is to introduce the basic concepts of housing systems, based on theoretical precedents (e.g. Habraken's theories, Open Building). To facilitate the activity, some references were provided by the teachers both, readings and projects that illustrated the concept of Housing System.

- TK: Identifying Housing Systems. The students analyse and describe selected housing projects in systemic terms by answering the following questions**:**

1. Which are the elements (components, subsystems) that make the system?
2. Which are the relationships between the elements?
3. Which are the goals of the system?
4. Which is the environment of the system (what is outside the system but interacts with it)?
5. Which are the system internal processes and events (the ways in which the system expresses its activity)?

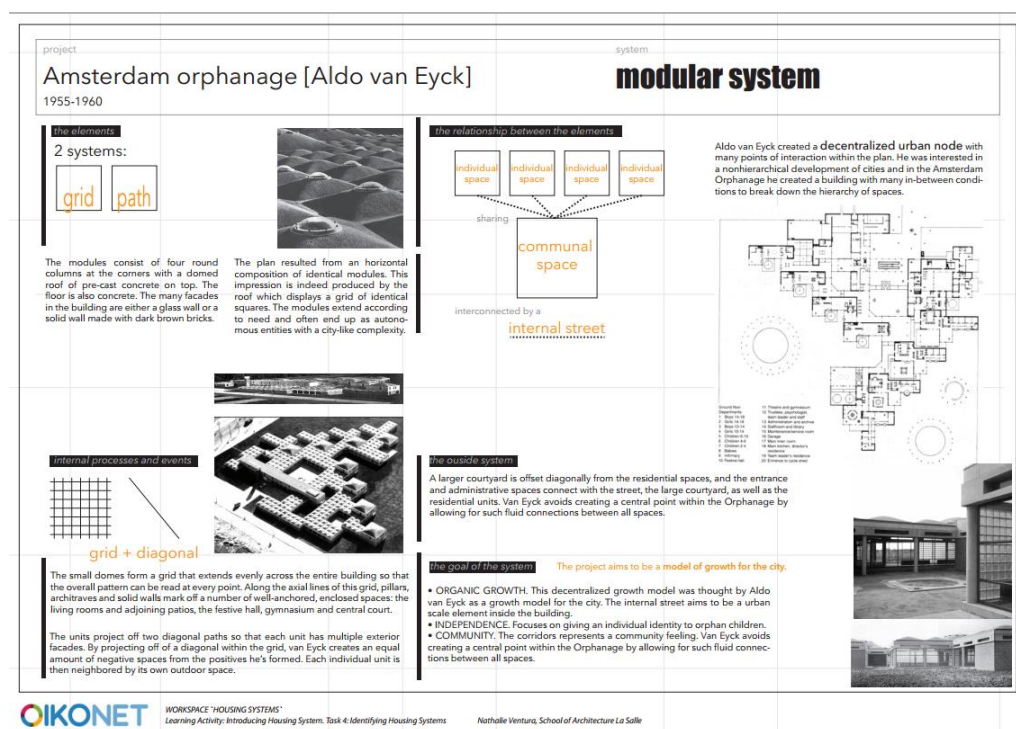*Figure 6.3. Submission by student Nathalie Ventura (LA SALLE)*

- LA: DEVISING HOUSING SYSTEMS. The objective of this L.A. was to generate housing designs within a housing system.

- TK: Devising Housing Systems. The students propose housing designs within a housing system, answering the same questions that were addressed on the previous TK "Identifying Housing Systems" for each proposal.
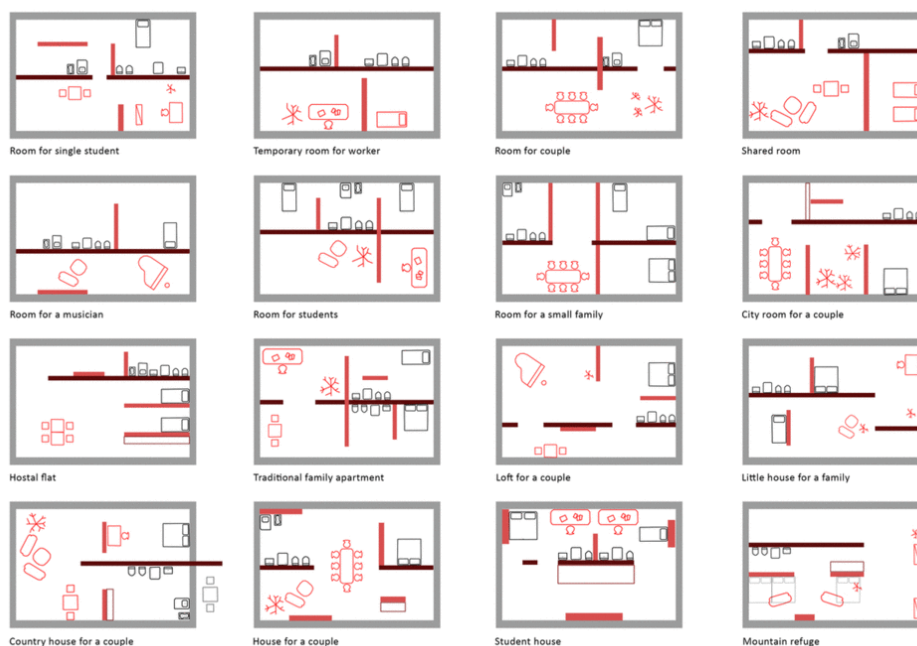
Figure 6.4. Submission by the student Davide Serrazanetti (LA SALLE)

After the activities in the seminar at LA SALLE were completed, a group from UTH and a second one from DIT continued working in the learning space during the spring semester of 2014/15. The structure of the Learning Activities was maintained, and new tasks were added by the two groups. The students' submissions were commented on by Leandro Madrazo and Angel Martin, from LA SALLE, and by Carla Sentieri, from ETSA-UPV.

- LA: INTRODUCING HOUSING SYSTEMS

- TK: Comparing Housing Systems (UTH). Students select at least two cases of blocks of flats (OIKODOMOS Case Repository being one of the resources) and compare the structure of circulation systems, typologies of housing units, relations between individual units and connecting structure. The aim of the task is to clarify the complexity and interrelation of elements in a housing system such as a block of flats.
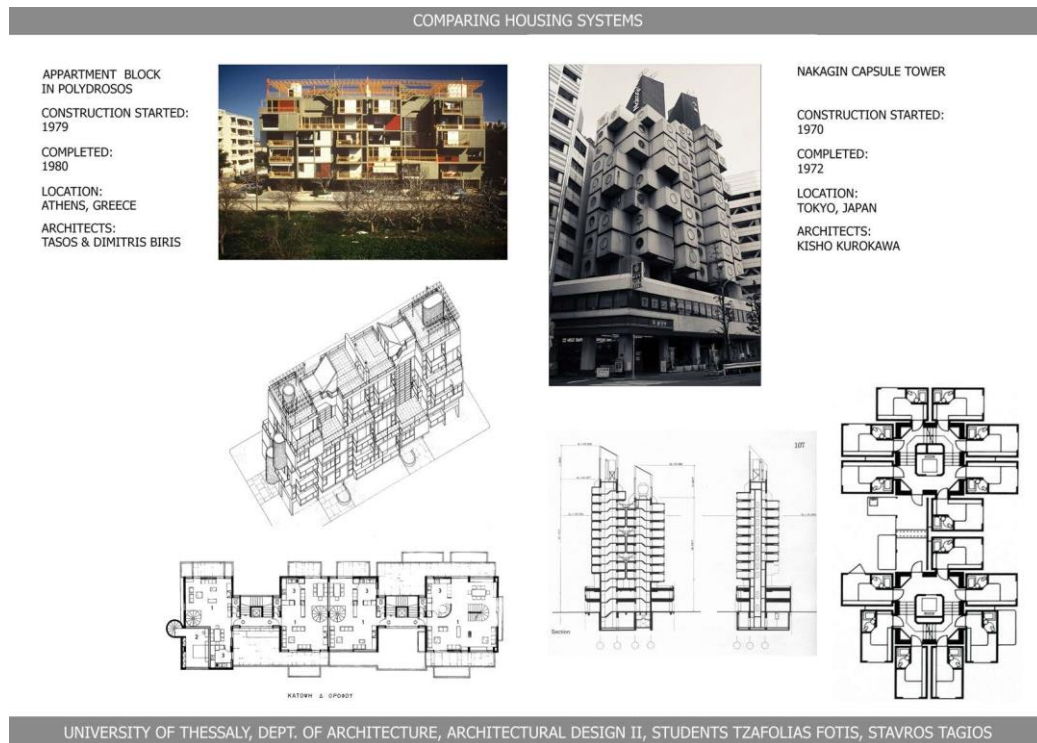
Figure 6.5. Task submission by students Fotis Tzafolias and Tagios Stavros (UTH)
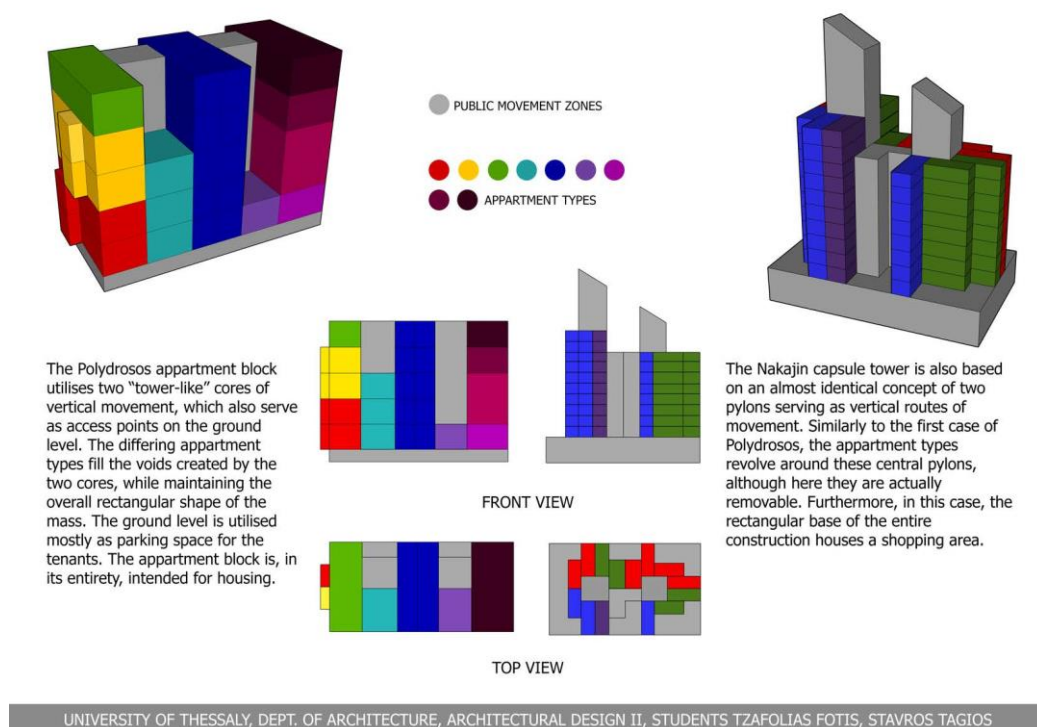
Figure 6.6. Task submission by students Fotis Tzafolias and Tagios Stavros (UTH)

- TK: Present exemplar of a housing system (DIT). Study an exemplar of a housing system and present it graphically on one A3 sheet with images and a maximum 100-word commentary explaining how it relates to the stated criteria of this learning space.

Figure 6.7. Task submission by student Deirdre Doyle (DIT)

Figure 6.8. Task submission by student Kate Rushe (DIT)

- LA: DEVISING HOUSING SYSTEMS

- TK: Present exemplar of a housing system (DIT). Analyse your own housing scheme in the context of this workspace. How could your scheme be adaptable over time? How could the structural system allow for this? Can the chosen timber construction system allow easily for flexibility and adaptability? Does it allow for changing occupancies and demography? Present this graphically on one A3 sheet to include a maximum 150-word description and 2 or 3 other key drawings of your scheme. Upload a pdf of this A3 study to the workspace. Respond to any comments made by collaborating students / teachers from other institutes.
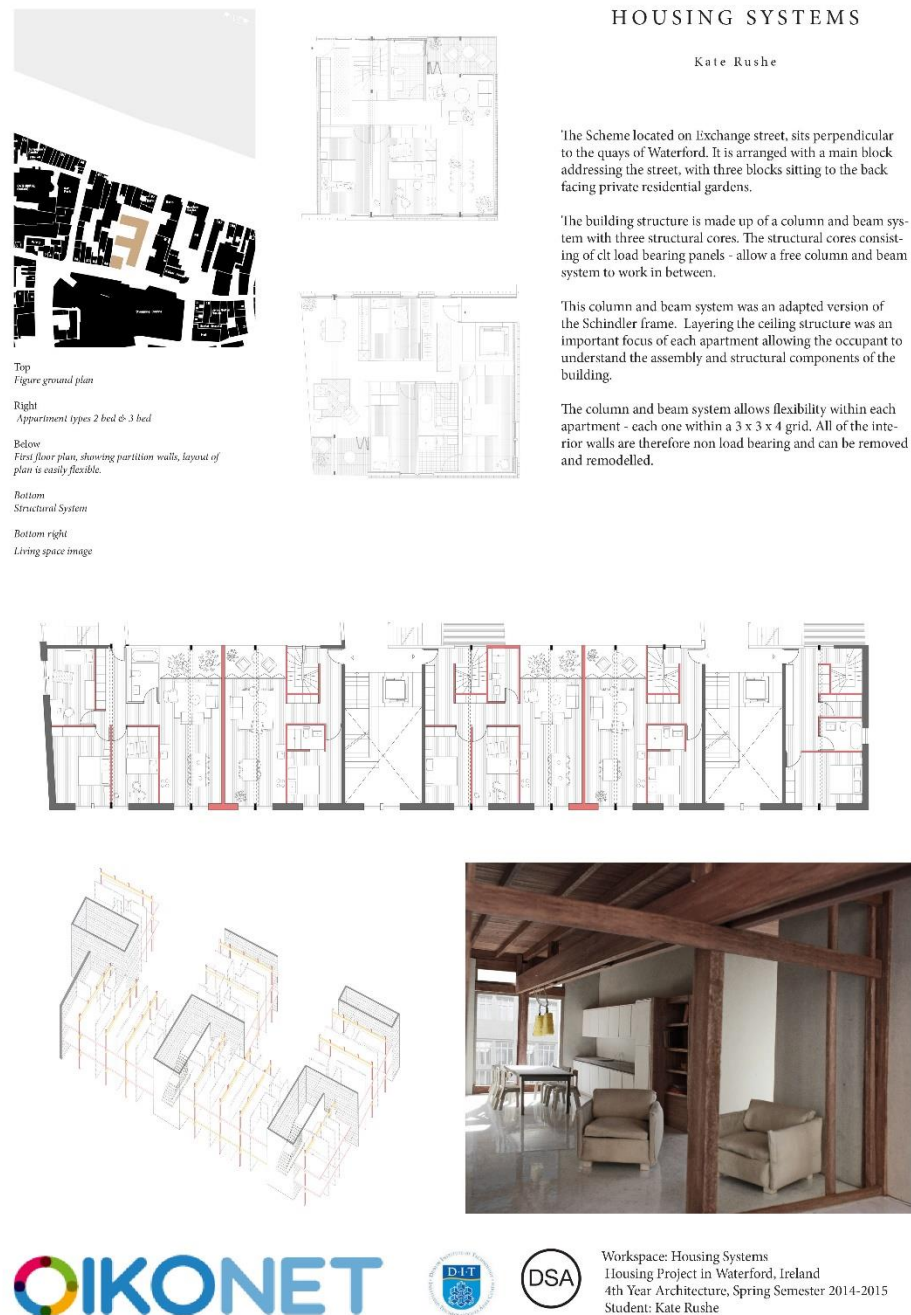
Figure 6.9. Task submission by student Kate Rushe (DIT)

6.4 Blended-learning environment

The activities were carried out in the classroom as well as in the on-line learning environments.

6.4.1 On-site activities

The elective seminar met once a week, during three hours, from October 2013 to February 2014. This time was dedicated to introduce the theoretical basis of the topics, to make presentations of student works, to discuss the comments received through the OIKODOMOS Workspaces environments, and to do the tasks.

6.4.2 On-line activities

OIKODOMOS Workspaces was used to structure the learning activities and to organize the collaborations among the different partners. Both, the comments and the shared tasks, were submitted on the OIKODOMOS Workspaces.

OIKODOMOS Case Repository was used to create collections that illustrate different topics. The results of those searching were also submitted on the OIKODOMOS Workspaces to be shared and commented by teachers and students from other institutions.

Some comments among students, were directly written on the OIKODOMOS Case Repository.

6.5 Collaborative activities

At the School of Architecture La Salle, 6 undergraduate students and 2 tutors, participated in the activities. Two tutors also participated in the reviews of the works done by students from UTH and DIT.

Andronicos Kalli, a postgraduate student from the University of Cyprus (UCY), participated in the activities related to the seminar at LA SALLE, and completed two of the planned tasks.

- **TK: Create a Housing Collection**. Commenting on several submissions, Andronicos opened different discussions with LA SALLE's students regarding the criteria to describe contemporary housing.

- **TK: Create a Housing Collection.** Submitted the task, finding his own examples. LA SALLE students commented his selections and compared them with their own findings.

Besides, he was actively involved in commenting on and discussing the work done by the students from LA SALLE, in Barcelona.

At UTH, 19 students and 1 tutor participated in the learning space. All of them were following the tasks and discussions in the on-line environment but only 8 were actively involved submitting work on the platform (this was because the work on the on-line environment was an extra activity on top of the formal requirements of the UTH course).

At DIT, 18 students and 2 tutors worked on the tasks of the learning space.

Carla Sentieri, from ETSA-UPV, collaborated through her commenting on the work of the students from the various institutions.

Vaso Trova from UTH commented submitted by DIT students.

6.6 Outcomes

The following outputs were produced by students from the three participating schools:

- students from LA SALLE submitted 32 works in 5 tasks.

- students from UTH submitted 7 works in 2 tasks.

- students from DIT submitted 32 works in 2 tasks

Some learning resources prepared for the first edition of this learning space can be useful for future editions. They are available in the RESOURCES area of the OIKODOMOS Workspaces.

Bibliography related to Housing Systems:

- Extract of 'General Systems Theory' by Ludwig von Bertalanffy

- Extract of 'Systems Theory' by Alexander Laszlo

- Extract of 'System of System's by Rusell Ackoff

Bibliography related to Architectural Types:

- Extract of 'Words and Buildings' by Adrian Forty

- Extract of 'Durand and the Science of Architecture' by Leandro Madrazo

- Extract of 'The Background Type' by Jeremy Till

6.7 Evaluation of results

The systematic approach on architectural design conveyed through the topic "housing system" was received with wide interest by the students. Also, due to the novelty of the approach, the students found serious difficulties to develop a deep understanding of the concept and therefore, on devising architectural proposals based on a notion of system. These difficulties forced a change on the original learning plan, increasing the time dedicated to some tasks and grouping other ones.

With regard to the collaboration between students and teachers of different institutions, some meaningful collaboration occurred in Task "Create a Housing Collection" and in Task "Reflecting on the topic of housing types". Students commented the works submitted by other students. In particular, it is worth to mention that the Master student from UCY was commenting the works of his undergraduate peers at LA SALLE. The works submitted by students were commented by a teacher from another institution (Carla Sentieri, from ETSA-UPV). The format of the submission in one of the tasks (a short essay) facilitated this interaction between students and teachers from different universities.

Student feedback was collected via on-line questionnaires (see Deliverable 6.3 for a comprehensive report). The main findings can be summarized as follows:

- The tasks, their sequence and how they relate to each other were clear. It was an innovative way of learning which facilitated the exchange of opinions and forced students to reflect on others' works and express their own thoughts.

- Students considered the OIKODOMOS Workspaces a very useful tool. It allowed everyone to be engaged and contribute actively by commenting on the work of others. In this way, they were able to see and discover aspects that else would have been less visible

- Commenting worked very well and it was much appreciated. A lot of effort was put in comments and many interesting and useful suggestions emerged. Comments made them reflect on others works, identify strong points and suggest ways of improvements or alternative points of views. However, interaction was limited to commenting on others' works.

- Students particularly appreciated the interactive way of working. With more students participating at the learning spaces, this way of working would have been even more interesting and stimulating.

- Most students would be happy to repeat this kind of collaborative learning experience. The quality of the whole learning experience could be further improved by amending certain collaboration aspects.

6.8 Conclusions and further steps

The lessons that can be learned from the first implementation of the learning space are:

- The learning design specifications were useful to get a preliminary understanding of the content and intentions of the learning activities. The sequence of the tasks needs to be coordinated in a specific and a more elaborated document

- There are some tasks dealing with broad issues related to housing that could be reproduced in different and diverse learning spaces.

- There are some specific tasks, related to the creations of housing systems that could only be used in courses dedicated to this topic.

- The visualization and communication of the on-going activities in real time helps to create unexpected interactions

- The use of social media, in addition to OIKODOMOS Workspaces, could facilitate the interaction of students and teachers in a more direct and informal way.

- The flexibility of a task-based pedagogic structure was proved to be positive on the implementation of the pedagogic plans

- Regular intermediate reports about the results achieved until a certain point in the learning process, would help the institutions involved in a learning space –as well as other institutions following the learning process from outside– to understand the progress that is being made and the objectives that are being pursued.

- The strategy of adding new tasks to an existing learning structure as new groups joined the learning space after the work done by LA SALLE ended has proved to be quite effective. The groups which came afterwards could adapt the methodology to their own courses, and create new tasks which suited to their specific purposes.

7 CONTEMPORARY LIVING PATTERNS

by Adriana Diaconu, Institut d'Urbanisme de Grenoble, Université Grenoble Alpes, France

7.1 Introduction

This Learning Workspace was created in order to prepare the students participating in the first OIKONET workshop organised in Lisbon, in July 2014. In line with the OIKONET project goals, the learning space aimed to provide students specialising in architecture and urban planning competencies for working in an international environment. The goal was to introduce the topics to be developed during the workshop, and start communication between participants, in order to improve the chances for a successful intensive collaboration week, during the workshop.

Moreover, the preparatory activities were the occasion to involve all fifteen institutions invited to the workshop, who were all members of the "Pedagogy" subnetwork (i.e. WP4). In this way, the learning space was aiming to foster mutual knowledge and exchanges between all these institutions specialised in architecture and planning education, in the first year of the project.

The blended learning methodology could be applied by designing a coherent series of on-line learning activities preceding the workshop, for which the same participants gathered in Lisbon for one week. This method, already developed in the preceding OIKODOMOS project, could thus be used for the first time within the OIKONET project at a larger scale, involving fifteen institutions (about 50 students and 20 tutors).

Besides mutual knowledge, fostering collaboration and applying the "blended learning" model, another main objective, in relation to the main aims of OIKONET, was to explore and combine different disciplinary perspectives on the same topics related to housing.

7.2 Topic

The learning topic was defined in close relation to the subject of the Lisbon workshop entitled "Contemporary living patterns in mass housing in Europe". It was also directly linked to the urban sites proposed for study during the workshop and with the methodology that the workshop organisers put forward. From this thematic point of view, the Learning activities were heterogeneous, since all the topics of the workshop had to be included:

- Housing patterns, architectural forms and urban structures characteristic of two Lisbon areas: Portela de Sacavém (characteristic of mass housing high-rise typology of "towers and slabs" from the 1960s) and Bairro da Liberdade (an informal, unplanned housing area);

- Socio-demographic characteristics of the two areas, of Lisbon and of Portugal;

- Parametric design tools;

- Architecture sustainability and performance;

- Participatory processes in housing design and involvement of inhabitants in the design and construction of their own dwellings.

Based on the exploration of the two Lisbon areas and on comparisons with similar case studies in Europe, students had to start reflecting on how contemporary design solutions could be developed by two contrasting housing patterns (i.e. mass housing and informal housing). In addition, the learning space aimed to introduce students to some of the contemporary

paradigms their design solutions had to build on during the workshop (i.e. parametric design tools, calculations of architecture sustainability and performance and the experience of involving inhabitants in housing design).

7.3 Implemented learning activities

The following activities were carried out:

- LA: URBAN AND ARCHITECTURAL ANALYSIS OF THE PROJECT SITES.
This learning activity allows students and teachers to get familiar with the sites chosen for the workshop in Lisbon.

> **- TK: Historical context analysis: Portela de Sacavém, Lisbon.** Students had to produce a short report in which they had to compare the Portela de Sacavém example to other similar housing programs that students could identify in the cities where they live: densely populated housing designed for the middle class, built by private promoters in the same period as Portela de Sacavém. Those housing programs could include public or private facilities and students were also asked to understand the articulation between the plan and its surroundings. The report could be presented through a series of photographs or a short film.
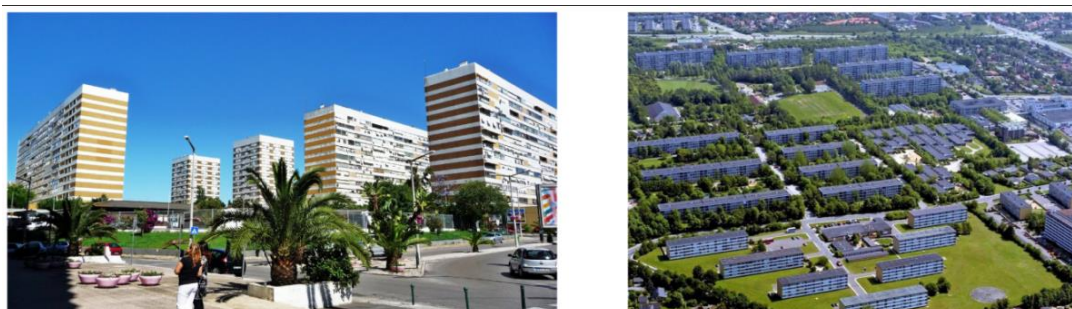
Portela de Sacavém in Lisbon, Portugal compared to Gellerupparken in Aarhus, Denmark

Figure 7.1. Fragment from submission by students Frederik Peter Kaemsgaard, Inger Kirstin Rahbek and Troels Broch (AAU)

> **- TK: Urban context analysis: Portela de Sacavém and Bairro da Liberdade, Lisbon.** Using a series of maps of Lisbon and of the two sites from several periods, as well as on-line maps and street view, the students had to reflect on the development of the two districts in time, in relation to the overall structure of the city of Lisbon. They had to analyse the present morphology of the two sites (urban and architectural form), and to identify some characteristics of urban living in the two neighbourhoods. They had to produce a report consisting of a series of sketches, synthetic maps and photographs and they had to try to formulate hypothesis and find explanations for the emergence of the present urban configurations and the particularities of the two sites.
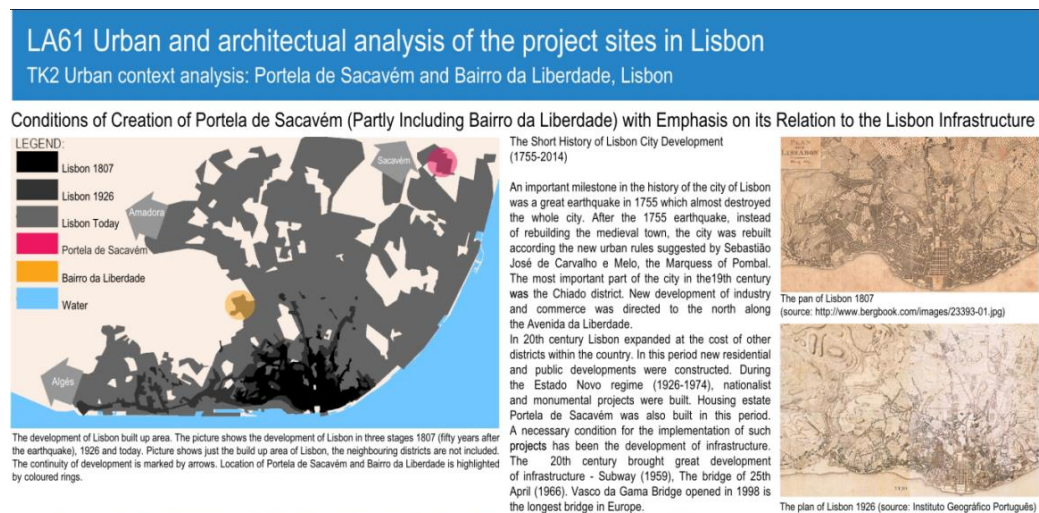
Figure 7.2. Fragment from the submission by student Karol Görner (FASTU)

- TK: Figure Ground Mapping. For this task students had to study the existing materials of TK1 and TK2 in this Learning Activity. They had to look at the material to perform three tasks:

1. Formulate a constructive comment on the works done. This is done through using the 'comment' tool in the workspace.

2. From this, identify elements in the uploaded analyses that are gaps of missing pieces of information they think might be useful for understanding the build context in general and the workshop in specific.

3. Produce 3 figure ground maps studying these items. The 3 maps investigate the two workshop sites and compare this with the historical centre of Lisbon.

Output: one document using the OIKONET Template.

Figure 7.3. Fragment from the submission by students Caroline Melders and Nele Santy (KUL)

- LA62 THEMATIC REFLECTIONS: PARAMETRIC DESIGN. The intention of this activity was to introduce students some basic principles of parametric modelling which were to be then applied in the workshop. The task consisted in creating variations of a facade design.

- TK3 Form principle analysis and schema creation, (coordinator: Nicolai Steinø, AAU). Based on the lecture, reading and assignment, students had to define form principles for site designs, building envelopes or façade schemes, based on analyses and design work. Based on an examination of the submitted works of others, one other design had to be combined with the student's own design.
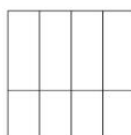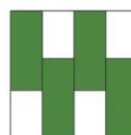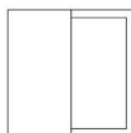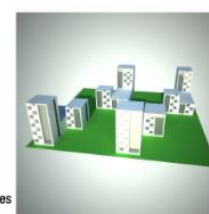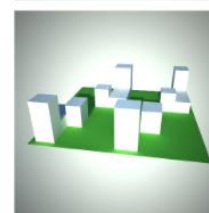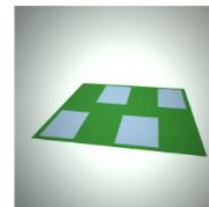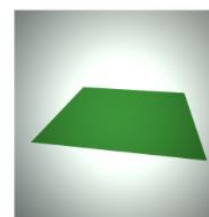
Figure 7.4. Fragment from the submission by students Malorzata Budlewska, Jan Wyszkowski and Marek Sipko (BUT)

- LA: THEMATIC REFLECTIONS: HOME AND SOCIAL CHANGE. This learning activity focused on social characteristics and specificities of living in mass housing areas in Lisbon, and particularly in the two districts chosen for the Lisbon workshop.

- TK: Socio-demographical analysis of the two project sites in Lisbon (coordinator: Paulette Duarte, UGA). The objective of this activity was to explore the social, demographic and economic changes in the Portuguese society. In order to understand the characteristics of the inhabitants of the two Lisbon districts proposed for the workshop, Portela de Sacavém and Bairro da Liberdade, students had to realize a demographic profile of the population using statistical data.
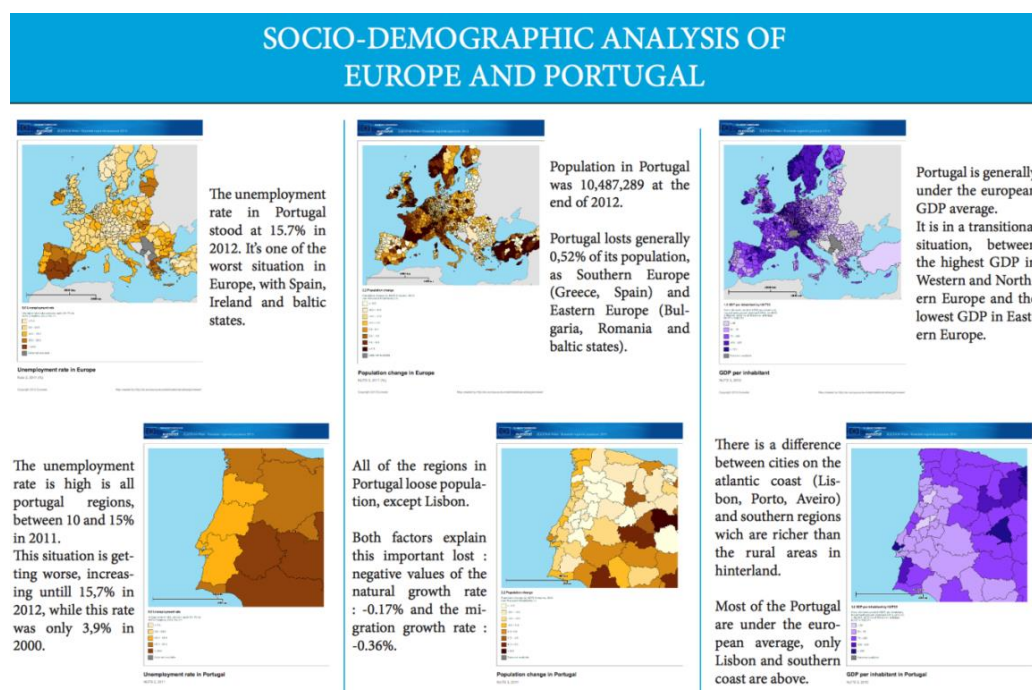
Figure 7.5. Fragment from the submission by students Rémi Avril, Léa Garcia and Bruno Trabut (UGA)

- TK: Summary of the lecture (coordinator: Sandra Marques Pereira, ISCTE-IUL). Students had to write a summary of the lecture "Home and Social Change".

- LA: THEMATIC REFLECTIONS: SUSTAINABLE HOUSING. This learning activity introduced students to the principles and concepts of sustainability in architecture and in housing design.

- TK: Lecture "Sustainable housing design and performance"

- TK: Reading report. Students were asked to read chapters "Introduction" and "Conclusion" of reference Mulder, K., Didac, F., van Lente, H. (2011). What is Sustainable Technology? Perceptions, Paradoxes and Possibilities, Greenleaf Publishing Limited? Students had to write a short paper (max. 1000 words) relating the discussion of these chapters to architectural design.

- LA: THEMATIC REFLECTIONS: PARTICIPATORY PROCESSES IN HOUSING DESIGN. This learning activity proposed a reflection on the Portuguese experience of participatory design from the 1970s up to the present.

- TK: Documentary "OPERATIONS SAAL", João Dias, 2007

- TK: Report based on the video and a similar case study. Students have to write a short manuscript (max. 1000 words) based on the video and a similar case study.
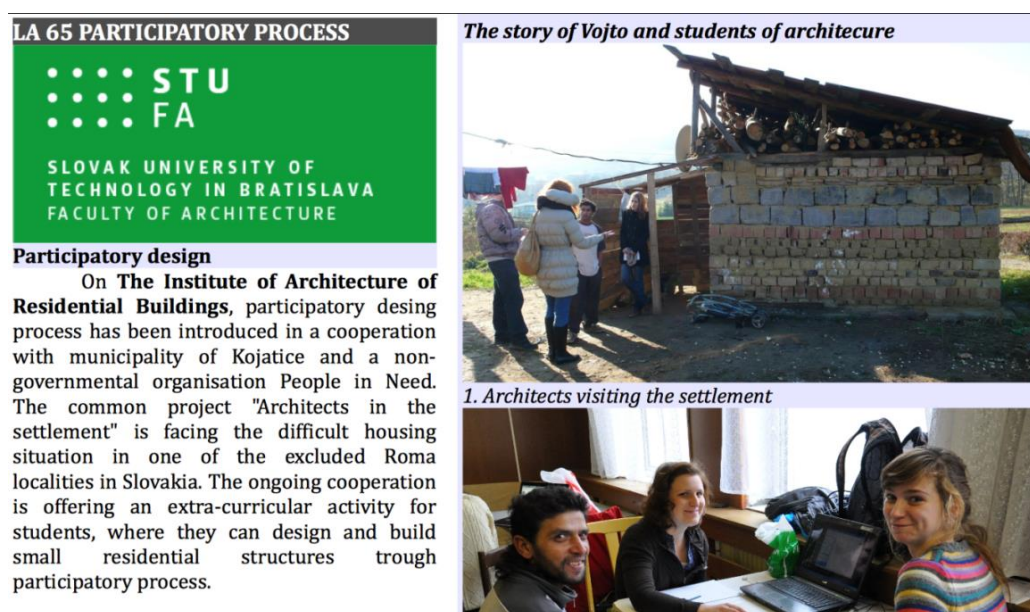
Figure 7.6. Fragment from the submission by student Martin Sladek (FASTU)

In terms of outputs from students and especially in terms of collaboration between institutions, the results were lower than expected. A quantitative synthesis of the outcomes can be found in the following table.

Table 7.1. Outputs produced in the learning space

Learning activity	Task number	Number of groups that have completed the task fully	Number of groups that have completed the task partially	Total	Collaborative activities
LA 1	Task 1	3	4	7	Comments from teachers (an average of 1,69 per valid entry)
	Task 2	1	6	7	Collaborative task – based on the analysis formerly produced by other groups (accomplished by one group)
	Task 13	0	1	1	Collaborative task – based on the analysis formerly produced by other groups
LA 2	Task 3	0	3	3	The proposed collaborative activity has not been realised by any group
LA 3	Task 4	3	0	3	No collaborative activity proposed
	Tasks7-8	3	1	4	The proposed collaborative activity has not been realised by any group
LA 4	Tasks 9-10	4	0	4	No collaborative activity proposed
LA 5	Tasks 11-12	0	2	2	No collaborative activity proposed

7.4 Blended-learning environment

7.4.1 On-line activities

OIKODOMOS Workspaces was used as a platform where all Tasks descriptions, learning resources, outputs from students and comments were uploaded.

7.4.2 On-site activities

In each institution the meetings between tutors and the students selected for the workshop were organised in different ways, most often besides regular classes.

The main on-site activity of this Learning space was the final presentation all groups of students made on the first day of the workshop in Lisbon. As a preliminary phase to the Lisbon workshop, the on-line activities aimed at starting discussions to be continued during the workshop. On this first day of the workshop, the work done in the preparation phase was presented by each group of students, the sum of their work in different tasks was presented in a poster exhibition and discussed with all workshop participants.

This exercise of synthesising the outputs and presenting them as a starting point for the workshop brought students out of the context of the isolated tasks defined by teachers and encouraged them to interpret in their own way the initial assignments. On this occasion, teachers and students discussed the work done by all groups and these presentations were an essential kick-off phase for the collaboration during the week spent in Lisbon.

7.5 Collaborative activities

Several forms of collaboration between institutions were foreseen:

- Collaboration between tutors from different institutions;
- Collaboration between students from different institutions;
- Collaboration between students and teachers from different institutions.

7.5.1 Collaboration between tutors from different institutions

Each task of the Learning Workspace was conceived and prepared by one or two persons from the same institution. The only form of collaboration between tutors from different institutions, consisted in the exchange of information and materials (resources) necessary for realising the tasks. For example, for the two tasks coordinated by UGA (France), ISCTE-IUL (Portugal) provided the necessary documentation for analysing the areas under study (i.e. plans, maps and photographs of the two areas and of Lisbon).

7.5.2 Collaboration between students from different institutions

Student work was carried out either individually or in a small group of students from the same institution. In addition, several forms of collaboration between students from different institutions have been proposed:

- looking at and commenting other students' work on the OIKODOMOS Workspaces platform;
- using the work of another group as a starting point for one's own work.

In reality, only the first form of collaboration was effective during the Workspace activities. Students looked at the other student's works, but very few comments have been registered on the platform.

As far as the second form of collaboration is concerned, it was undertaken only in one case, when it was imposed by a tutor to the students from his own institution (KU Leuven). This tutor created a supplementary collaborative task for this purpose.

As a preliminary phase to the Lisbon workshop, the on-line activities aimed at starting discussions that were to be continued from the first day of the workshop on. On this first day of the workshop, the work done in the preparation phase was presented by each group of students. This exercise of synthesising the outputs and presenting them as a starting point for the workshop brought students out of the context of the isolated tasks defined by teachers and encouraged them to interpret in their own way the initial assignments. On this occasion, teachers and students discussed the work done by all groups and these presentations were an essential kick-off phase for the collaboration during the week spent in Lisbon.

7.5.3 Collaboration between students and tutors from different institutions

Finally, a third form of collaboration was proposed which consisted of feed-back given by teachers who commented students' work on the OIKODOMOS Workspaces platform. First and foremost, the initiators of each task were in charge of discussing students' outputs, but comments and questions from all other tutors were highly encouraged.

7.6 Outcomes

Some learning resources, especially videos, can be useful for other learning activities. They are available on the OIKONET Channel or directly on OIKODOMOS Workspaces, as Resources.

These learning resources are:

- Video documentary: Portela de Sacavém, Ana Vaz Milheiro, Dinamia'CET, ISCTE-IUL;

- Video lecture "Form principle analysis and schema creation", Nicolai Steinø, AAU;

- Video lecture "Home and Social Change", Sandra Marques Pereira, Dinamia'CET, ISCTE-IUL;

- Video lecture "Sustainable housing design and performance", Vasco Moreira Rato, ISCTE-IUL;

- Reading material: Mulder, K., Didac, F., van Lente, H. (2011). What is Sustainable Technology? Perceptions, Paradoxes and Possibilities, Greenleaf Publishing Limited;

- Video documentary: "OPERATIONS SAAL", João Dias, 2007.

The analysis and digital presentations from students of different case studies of mass housing in their own countries are a valuable collection that can be used for further learning activities on this topic, enabling a comparative perspective.

7.7 Evaluation of results

The majority of participants, and especially teachers, considered the preparatory learning activities as extremely important for facilitating the work during the workshop, especially because the workshop itself lasted only five and a half days, which was quite short. Besides preparing students and getting to know each other, the learning space allowed collecting learning and teaching materials, valuable for the workshop but also besides it.

However, several problems were identified, especially concerning collaboration between partners. In the collaboration between teachers, a heterogeneous character and a lack of overall coherence resulted from the lack of coordination between the different components included

in the learning space created and coordinated by different partners. Moreover, the preparatory activities of the learning space and the activities of the workshop were not well correlated. Therefore, the importance of the preparatory activities was diminished. A better initial coordination of the learning space involving a larger number of participating teachers and a better coordination between the preparatory activities and the workshop activities would be very beneficial in the future.

Time management and planning was a big difficulty, because preparatory activities had to be done in parallel with regular activities of each institution, at the end of the spring semester, when students are generally involved in exams and other end-year projects. Moreover, the academic calendars and the exact periods of time when students from different universities could actually work on the proposed assignments were largely unknown when the activities were initiated.

Because of lack of time, students' outputs were processed very late, when no more time was left for commenting on and exchanging ideas about their work before the workshop. Altogether, no communication between students from different institutions took place during the preparatory learning activities, even if that had been one of the aims of the learning space. Since the OIKODOMOS Workspaces platform proved rather difficult to use and especially unfit for fostering a more informal dialogue, participants suggested complementing it with additional communication tools (like a Facebook group) in the future. On-line meetings before the workshop could also be beneficial, in order to introduce each other.

7.8 Conclusions and further steps

The experience was successful in preparing students to perform in an international environment, by getting acquainted to a foreign context. It was also useful for improving both students' communication skills, including oral, writing, graphic representation, digital presentation etc. Looking at each other's work gave significant results, even if this form of collaboration is difficult to assess. Such a workspace should be organised also in the future in order to prepare the next OIKONET workshops. However, several aspects should be amended.

In terms of content, in the future, more emphasis should be placed on the definition of concepts and terms, in order to gain in accuracy and fully understand disciplinary differences and eventually overcome them. Collaboration with the "Research" subnetwork on these issues would be particularly useful.

The number of tasks for pre-workshop activities should be reduced, in order to make the whole Workspace more easily understandable to all participating students and teachers and thus facilitate their work and their collaboration. Less tasks would also leave more time for commenting, for collaboration and for more informal discussions allowing students to get to know each other before the on-site experience of the workshop.

In order to foster more collaboration and to communicate easier, complementary communication tools should be introduced, as for example, a Facebook Group.

8 SMALL IS POWER (FIRST EDITION)

by Tomas Ooms, Faculty of Architecture, KU Leuven, Gent/Brussels, Belgium & and Adam Evans, School of Art, Design and Fashion, University of Central Lancashire, UK

8.1 Introduction

First and foremost, the "SMALL is power" (SMLL) learning space was a reflection on our contemporary way of relating the private sphere with the public realm. In our current high-density environments, it is vital that designers reflect on this relationship. To address this urgent issue, the "SMALL is power" learning space was developed.

The "SMALL is power" learning space was launched in the fall semester of 2015/16 as an initiative of the Faculty of Architecture KU Leuven (KUL), Belgium. It was embedded in the OIKONET elective course and was scheduled to run twice over the year, once in the winter semester and once in the spring semester (see further in this report). This chapter is about the winter semester.

Following observations connected with WP2 Housing Research, one of the key aims for the second half of the OIKONET project (as mentioned in the intermediate report) was a better and more integrated involvement of WP2 Housing Research in the learning spaces.

During the second OIKONET international workshop in Cottbus the idea for the SMLL was pitched. Adam Evans from UCLAN (WP2 Housing Research partner), who was joining the workshop, indicated his interest to collaborate. He came on board and joined the preparation and development of the learning space. Also, LA SALLE and Dublin Institute of Technology (DIT) expressed their interest and intent to join it.

This learning space built partially on the experience of the "Threshold Matters" learning space (see previous chapter in this report) and was inspired by some of the outputs produced therein: the Urban Tomography.

During the summer recess the learning design of the learning space was set up in close collaboration between KUL (WP4) and UCLAN (WP2).

A twofold topic was proposed: the section as a tool on the one hand and 'a designerly reflection towards the empowerment of the house' on the other.

In agreement between the partners and as a response to the evaluation of the first half of the OIKONET project, the overall goals for the learning space where set out as follows:

- To further develop the Urban Tomography;

- To reflect on the power of the small expressed in the relation of the private sphere and the public realm;

- To build a link with the topic and results of WP2 Housing Research;

- To publicly disseminate the work done.

The methods to achieve this where discussed and agreed upon and will be further reported in this chapter.

The following components would become the important elements to build the learning design (besides the learning outcomes that are defined in the context of the curriculum):

- An academic reflection as a link with WP2 Housing Research Matrix and the Oikopedia;
- Further exploration and experimentation with the Urban Tomography (linking it with the academic reflection);
- An architectural reflection (design proposal);
- And a publicly accessible exhibiting of the results of the SMLL.

In the following pages an account on how this was done is provided.

8.2 Topic

Cities form the main arena of human activities. More and more people are becoming city-dwellers (over 50% of the world population) hence living in a dense context. As one of many aspects that constitute city dwelling, the relation between the private sphere and the public realm is of an utmost importance. Reflecting on the nature of that relation is paramount if one wants to study housing.

Starting from the premise that the house has a responsibility towards the quality of the public space, this workspace wanted to explore the constituting elements of the relation between the house and the public realm. SMLL was a developed as a framework from which to explore the empowerment of the house. Within this framework -that is conceptual in nature- the ambition was to challenge the notion of the house as a passive element in firstly the development and execution of public space, and secondly in ensuring continual quality of urban life and use in a truly democratic manner.

In this sense SMLL was reflecting on our contemporary way of spatially organising living and more specifically the transition from the private spheres to the public realms, and vice versa.

The SMLL contributed to the understanding of the relation of the private space to the collective space and how architecture plays a role in this spatial and social dialogue. Moreover, the Workspace aimed to raise awareness about the more poetic side of 'living together'.

8.3 Implemented learning activities

The learning space was built up out of three Learning Activities (Las) and corresponding tasks (TKs) which altogether formed a sequence that reflected a process or a method to approach the topic of SMLL:

LA: MARKERS

- **TK: Oikowhat?**
- **TK: The mark of an educated mind**

LA: SECTIONS

- **TK: A slice of the urban world**

LA: MODELS

- **TK: A moment between U and I**
- **TK: Say what?**

The main goal of the first LA MARKERS was for students to become acquainted with the OIKONET environment and with the subject matter of the learning space. This was facilitated through two tasks. In the first Task "Oikowhat?" students needed to become familiar with the

OIKONET context, tools, method and previous outputs. In the second task, "The mark of an educated mind" they needed to acquire knowledge of the specific topic and scope of the learning space in order to move forward with a designerly reflection on the topic. This orienting and deepening of the subject was necessary in order to designerly reflect on that subject in the other LAs. The result of the task was the determination of a set of 'markers'. A marker is a critical element in the development of an Urban Tomography. The output of the MARKERS learning activity directly led (as an input) to the second LA SECTIONS.

In this LA, the LA and the task coincided: the development of an Urban Tomography. Urban Tomography (UT) is a method to graphically investigate specific aspects of the urban realm of housing settlements. Urban Tomography is a term for imaging by architectural or urban sections or sectioning. Through a series of sections of a specific urban site the UT is developed to construct a reading and understanding of that site. Through the use of 'markers' specific topics, items or urgencies are made visual. In the specific context of this workspace the chosen markers served to highlight the empowerment of the house and hence investigate the relation of the public sphere to the private realm. (The result of the Urban Tomography is a drawing.)

The third LA MODELS acted as a sort of debriefing: using the insights that they developed in the previous LAs, the students designerly reacted to the topic of SMLL with an in-situ installation in a public exhibition that was organised for the occasion.

In the next part of this report the account of what and how this was organised will be given as visually possible.
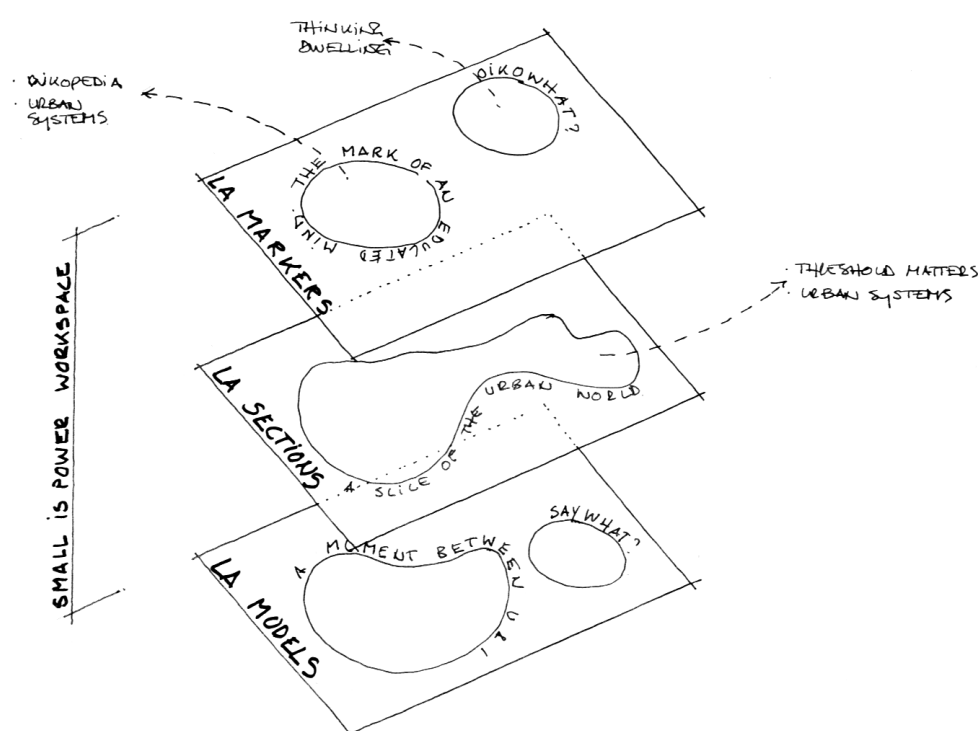
Figure 8.1. Learning Design Landscape – Sketch visualising the learning design of the SMLL: three learning activities form three layers with a different outcome. Together they form the landscape of the SMLL. The rectangles represent the LA', the organic shapes the tasks and the dashed lines show the links with other elements of the OIKODOMOS Workspaces.
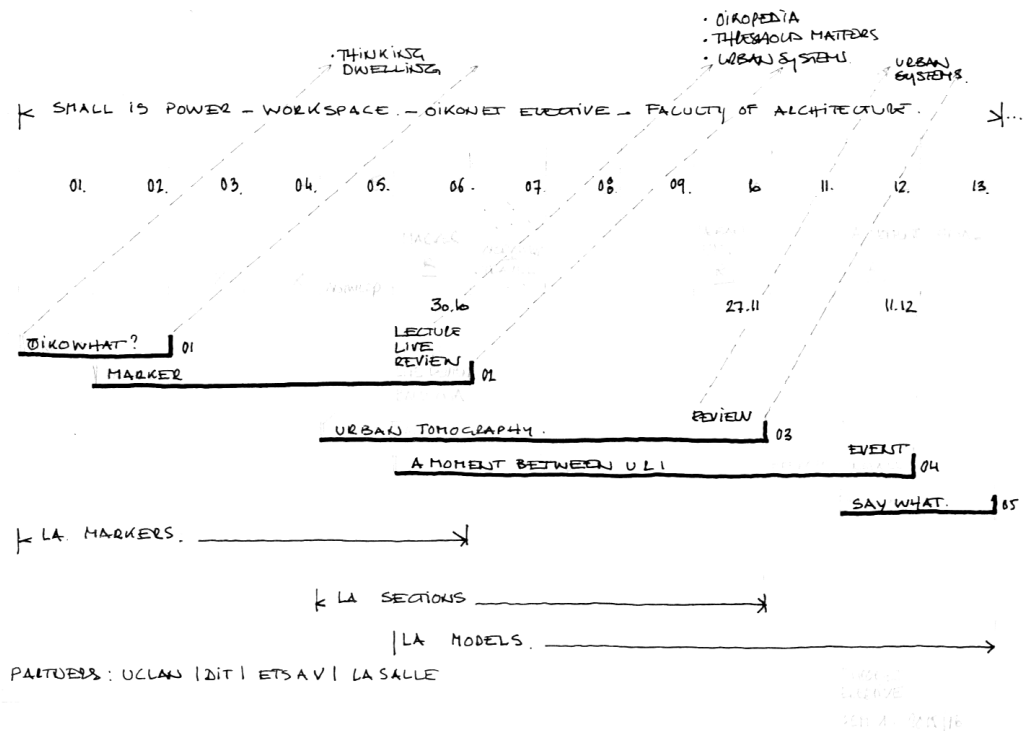
Figure 8.2. Learning Design Sequence – Waterfall model - Shows the same information as the Learning Design Landscape but add the dimension of time to it. The numbers represent the weeks. The arrowed lines the LAs. The bold lines the tasks and the dashed lines the links with other elements of the OIKODOMOS Workspaces.
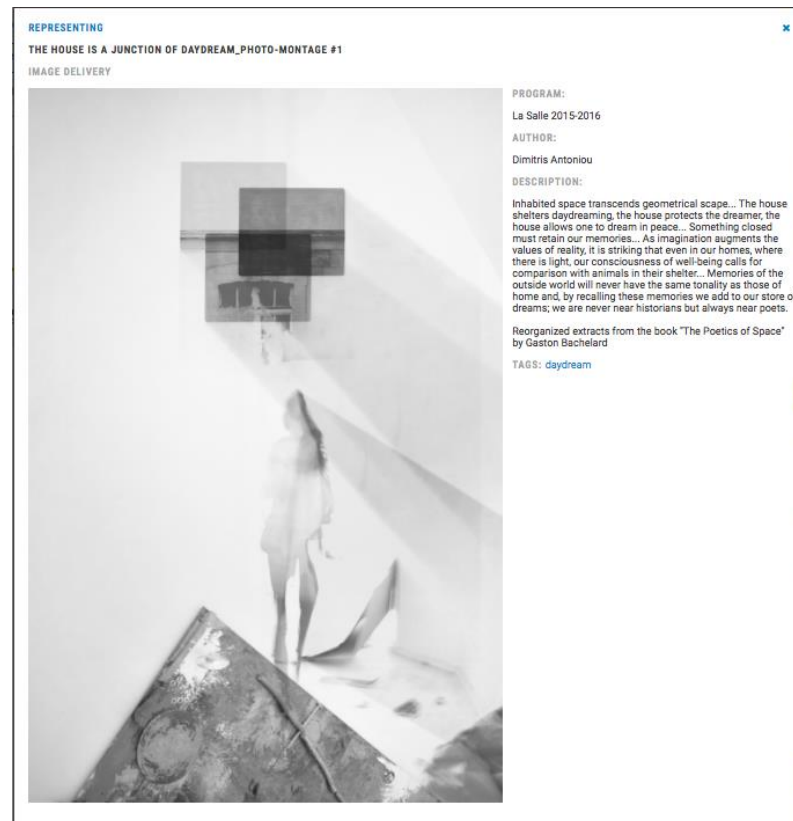
Figure 8.3. The House is Junction of Daydream – Dimitris Antoniou – Example of an output for Task "Oikowhat?"

To get acquainted with the OIKONET environment the students were asked to browse the previous OIKONET Workspaces. At the same time, they were asked to participate in the "Thinking Dwelling" learning space that was organised by LA SALLE. They were asked to contribute to it by uploading a photo. This photo was a reaction to the poem "The Elements of the House", from Raimund Abraham. The students read the poem and proposed a photo with the caption: "The house is the junction of '…' ". They had to fill in '…' trying to add a 'junction' to Raimund Abraham's poem.

Students were exposed to what was going on in other Workspaces that were active at the same time. To this end a presentation on the "Urban Systems" learning space was given by Angel Martin, from LA SALLE, via Skype. Conversely, Tomas Ooms (KUL) presented "SMALL is power" to the students of "Urban Systems", also in Skype.

OIKONET - Davide Agostini

In the text "Emotional City" by Adam Caruso there's a sort of metaphore for which the city is seen as a sort of a character, a person with his own emotions.
As a person a city it's something hard to describe by words, it's a mix of multiple aspects, faces, appereances that makes every city different from one another.
When you live in a city you can feel you know it, you feel like there's a feedback, but it's still a feeling, something trascendental, not rational.
What Adam Caruso was also pointing out is that a city is not understandable rationally, it can't be conceptualize, otherwise it would be just a partial, incomplete and imperfect face of it.
A city is instead a multitude of realities, most of the times ruled and developed by chaos rather then by order and planning.
It's quite impossible to plan a city, you can't work on a big scale and hope to connect these complexities under some conceptual idea, you have to accept the city as this "perfect and vivid instance of reality", that works by its own rules, that sometimes are understandable and other times are not.
The role of architects and urbanists is just to intervent in a smaller scale, closer to the human one which we can understand better.
It's like in music: as you hear the song, you don't really think about which notes are actually playing, you just hear that every single note it's the right one and in the right place but in what you really feel is the armony and relationship between them.
A city it's a polyphonic composition of singularities.

I think that planning a public space is a very complicated process and it can't be up to just a few persons to decide how exactly a place should be and what kind of activities it should have.
Architects should build a frame but it should be to the people who live the place who have to decide the most for it.
It could be an interesting marker just to map the public spaces without a designed function, which are just free for people to use as they think it's better.

Example: "Campo de Cebada" in Madrid

A demolished factory in Madrid turn into public space, activities and structure mainly organized and build by people who use the place, versatile spaces and social organization.

Figure 8.4. Emotional City – Davide Agostini – Example of the first version of the output for Task MARKER.

In Task "The mark of an educated mind" the students needed to read one of four proposed texts. On the base of this readings, students were asked to select and explore a certain concept that would link the text with the subject of the learning space. The concept the

students selected would be an important and critical element in the next task. They were expected to write a short text and to find visual examples that would illustrate the concept or that would present an architectural project that was an expression of that concept. The short text had to fit the formal requirements of the Oikopedia. Examples of these concepts were: Urban Acupuncture, Heterogeneity, and Anonymity.

The first contributions that students produced of this Oikopedia entry were collected in a Dropbox folder. Adam Evans from UCLAN –member for the subnetwork Housing Research– read these versions and during a Skype conference he offered feedback to each individual proposal in a plenum session. Jim Roche and the learning space coordinator also assisted in this meeting. Adam's notes were distributed to all students after the Skype conference.

Figure 8.5. Announcing the session with Adam Evans – screenshot from Facebook group.

Thereafter the students reworked their Oikopedia text according to the feedback they received. A template was provided for that purpose. Figure 8.6 shows the second and reworked version of the output of the task.

Figure 8.6. Urban Acupuncture – by Davide Agostini – Example of the second reworked version of the output Task "The mark of an educated mind".

The final versions of the output of this task were uploaded on the OIKODOMOS workspace

Figure 8.7. Announcing the visit to Antwerp - screenshot from SMALL is power Facebook group.

As part of the OIKONET elective course, a visit to the city of Antwerp was organised. The goal of the visit was threefold: to have social event linked to the elective, to explore, discover and experience some of the concepts described by the students in a real context and to visit the micro gallery for which the interventions would need to be designed.
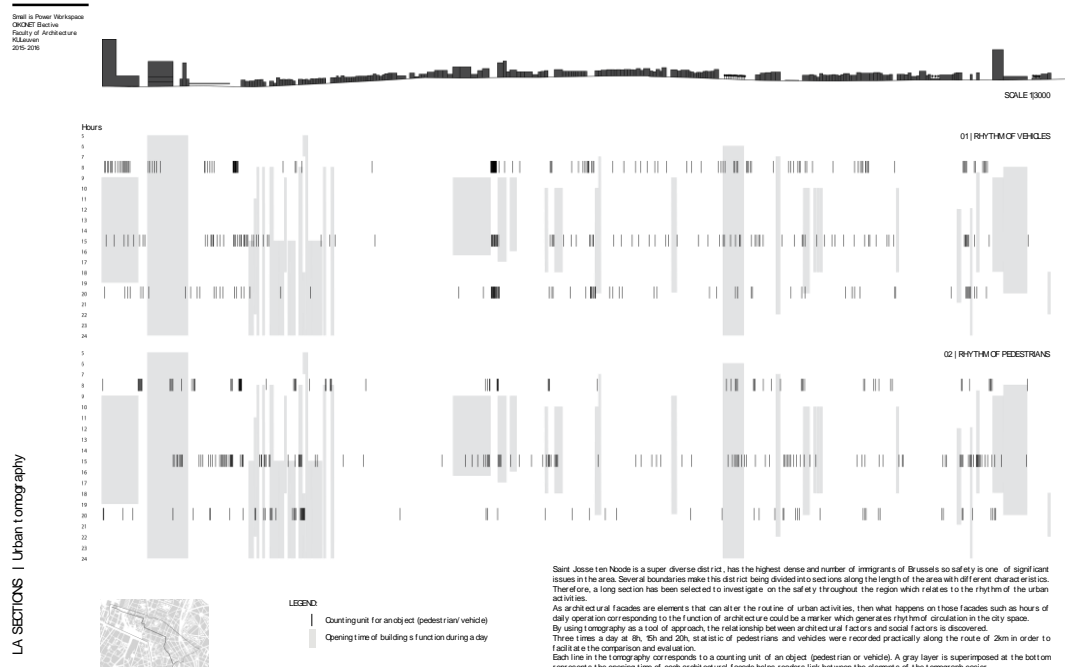
Figure 8.8. Urban Rhythm Section – Urban Tomography –by Kim Chung Dung Vu Example of output of Task "A slice of the urban world".

The following paragraphs contain the description of the Urban Rhythm Section Tomography as produced by the student:

Saint Josse ten Noode is a super diverse district, has the highest dense and number of immigrants of Brussels so safety is one of significant issues in the area. Several boundaries make this district being divided into sections along the length of the area with different characteristics. Therefore, a long section has been selected to investigate on the safety throughout the region that relates to the rhythm of the urban activities.

As architectural facades are elements that can alter the routine of urban activities, then what happens on those facades such as hours of daily operation corresponding to the function of architecture could be a marker which generates rhythm of circulation in the city space. By using tomography as a tool of approach, the relationship between architectural factors and social factors is discovered. Three times a day at 8h, 15h and 20h, statistic of pedestrians and vehicles were recorded practically along the route of 2km in order to facilitate the comparison and evaluation.

Each line in the tomography corresponds to a counting unit of an object (pedestrian or vehicle). A grey layer is superimposed at the bottom represents the opening time of each architectural facade helps readers link between the elements of the tomography easier.

In LA SECTIONS Task "A slice of the urban world" the students developed an Urban Tomography. As mentioned before, Urban Tomography (UT) is a method to graphically investigate specific aspects of the urban realm of housing settlements. The UT has four components: a site, a section, a concept and a marker. The type of section is dependent on the site and concept. As a site, students could use the site of their design studio projects. The concept is derived from the Oikopedia entry produced by students and the marker is the (graphical) expression of that concept. In the case of the example in Figure 8.8, Urban Rhythm Section, the student's Oikopedia entry was 'Commercial building façade, a Reflection on 'The Open City' by Richard Sennett'. The UT she developed became a graphical mapping of the appearance of a certain concept on a specific site. Through the creation of this high contrast image or drawing she was able to expand the concept of 'Commercial building façade' to a higher and deeper level and hence explore the role these facades play in the urban rhythm.

Figure 8.9. Borders and Boundaries – Urban Tomography –by Zora Starčević & Ignacio Galán - Example of output of Task 3 A Slice of the Urban World (Part of LA SECTIONS). A more morphological approach to apply the Urban Tomography

In the original learning plan it was foreseen that Adam Evans would join the review of this task as critic. Unfortunately, because of the terror attacks on Paris the week before the review the trip was cancelled. Adam continued the reviewing process through the OIKODOMOS Workspaces and the Facebook group.
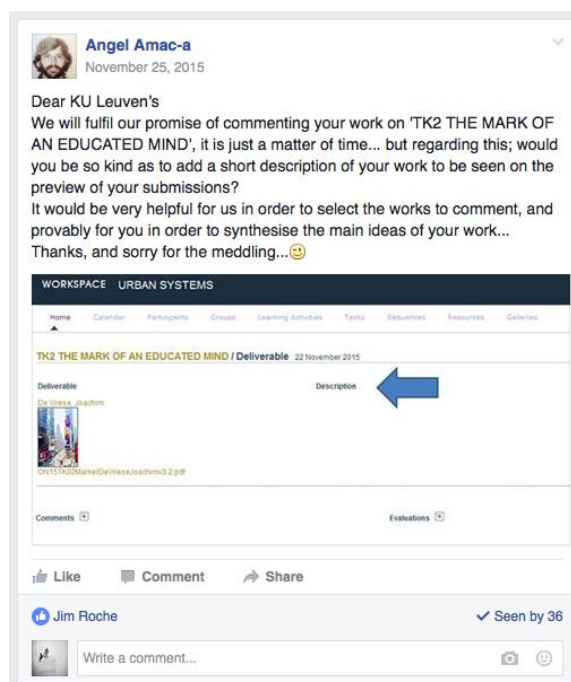
Figure 8.10. Announcing the commenting of LA SALLE students on the work done in Task 2 – Screenshot form the Facebook group.

Also, as part of the learning plan, LA SALLE had to comment on the work uploaded in the SMALL is power OIKODOMOS Workspaces. However, due to time constraints this was not undertaken.

Figure 8.11. Peer review session of the outputs of Task "A slice of the urban world"

All the results of the task were pinned up in a small exhibition. The students presented the work to each other and reflected on the results. The event was reported in the Facebook group and on the OIKONET Facebook page. The results were uploaded on the OIKODOMOS Workspaces. Other partners outside of the course followed the progress but did not provide feedback. This review was meant to be a pivotal moment in the collaboration between WP2 Housing Research and WP4 pedagogy. As mentioned before, due to external factors beyond our control the event had to be organised differently and did not have the broader intended impact. Nevertheless, we managed to re-organise this for the spring semester of SMALL is power.

During the same review the students presented a first proposal for Task "A moment between U and I". The goal of this task was to create an architectural/artistic intervention that would reflect on the idea of SMALL is power. The learning design leads up to this final movement. The students designerly reflected on the subject and topic of the course. The review was organised as a competition: every student could pitch his or her proposal in three minutes using only one A3. The three proposals that would be executed by the whole team of students were voted.

Figure 8.12. Pitching of proposals for Task "A moment between U and I" – table of shortlisted projects just before the final decision.

One of the overall goals of the OIKONET elective was to publicly disseminate the work done. To this end an exhibition was set up in a historical shop window in the historical city centre of Antwerp. The exhibition was hosted by Studio Tuin en Wereld (Studio Yard and World).

Figure 8.13. Announcement of the exhibition "A Moment between U and I" in Studio Tuin en Wereld (Antwerpen) – photograph from the shop window.

In order to prepare the exhibition, the students formed teams around one of three selected proposals and discussed how they would approach executing the work.
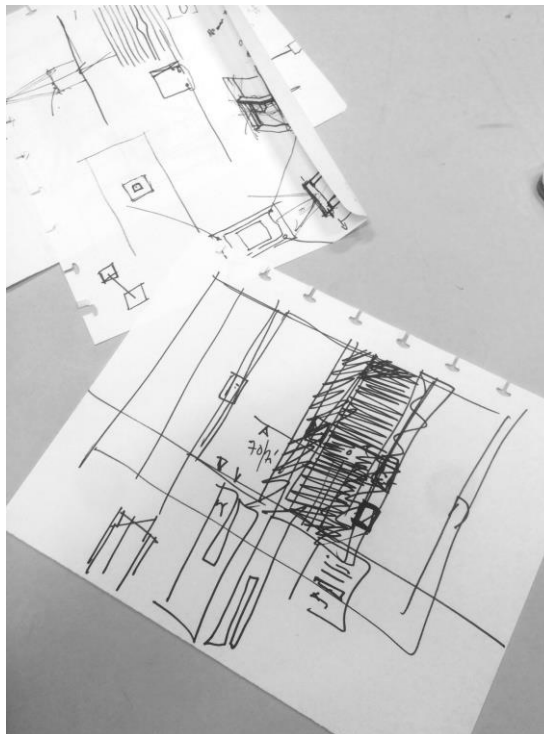
Figure 8.14. Graphically discussing execution details for the "A moment between U and I exhibition"

Figure 8.15. An event of Facebook was created to disseminate the exhibition.

Different channels where used to disseminate the exhibition. A Facebook event was created and it was announced on the different OIKONET Facebook groups and pages. A mail was sent to all OIKONET partners and it was announced on the OIKODOMOS Workspaces. The exhibition was open from the 11th of December 2015 until the 31st of January 2016. Since the Studio Tuin en Wereld improvised gallery is visible from the public space, it is difficult to mention how many people 'visited' it. But some of the neighbours mentioned they appreciated the works and the intervention.

A photographical report on the setting up and the final result was published in the SMALL is power Facebook page. The opening of the exhibition was also the closure of the winter version of the "SMALL is power" OIKONET elective.

8.4 Blended-learning environment

The activities have been carried out in the classroom as well as in the on-line learning environments.

8.4.1 On-site activities

The learning space was mainly active in the Faculty of Architecture at KUL and in different digital environments. A short description on how it was embedded in the curricula is given in the next section 'Collaborative activities'.

The elective took place in the studio spaces of the campus, there was a field trip to Antwerp and the final review and exhibition was organised in the Studio Tuin en Wereld gallery in Antwerp.

8.4.2 On-line activities

OIKODOMOS Workspaces was used to structure the learning activities and to share the works. A detailed event calendar was introduced so the public from outside the learning space could notice when the different events took place. A brief account on every step was added to the bulletin board.

Figure 8.16. The "SMALL is power" Workspace – screenshot.

A Facebook group was created as a communication platform complementing the OIKODOMOS Workspaces. The posts ranged from sharing of questions and information to updates on the on-going work, reminders for approaching deadlines and posting of final results. The Facebook group was used for quick communication, to answer questions form students, to give a fast and visual account of the evolution of the course, to share new resources, to announce events and other key sorts of information.

Figure 8.17. The "SMALL is power" Facebook group – screenshot - The group is a public group, has 37 members and contains 100+ entries.

To have regular updates and coordination meetings the teachers used Skype and e-mail. Skype was also used to deliver lectures and to host an on-line live review.

A Dropbox was used to share intermediate results and to gather and exchange files and templates.

During the Task "Oikowhat?" students explored the OIKODOMOS learning environment (Oikopedia, Case repository, other Workspaces) and participated in the "Thinking Dwelling" learning space.

8.5 Collaborative activities

At the Faculty of Architecture at KU Leuven, the OIKONET activities are embedded in an elective course. Our previous experiences with the OIKODOMOS projects and with the "Threshold Matters" learning space (coordinated by KUL) showed us that a coherent and full integration of the OIKONET activities in the curriculum is a necessity to ensure success. Students from the Master of Science in Architecture or the Master of Science in Interior Architecture could opt for this course. The learning design enabled the students to link the elective course to their design studio project (see description of Task 3).

The elective is organised as a design seminar based on interaction and collaboration in the context of the OIKONET project. The elective is linked to the international workshop and to the international OIKONET conference. The course leads to 5 ECTS credits.

As mentioned above one of the main goals (following the intermediate reporting) was to strengthen the ties between the activities of the two subnetworks – Pedagogical Activities and Housing Research. Because of most OIKONET partners not having students in the winter semester there were no other students than KUL students involved. Teachers from ESTA-UPV, DIT, and LA SALLE joined the Facebook group and hence were able to follow the activities of the course.

Even though we asked other partners to have some kind of individual consult with students none of them had the time to really get involved.

The learning space coordinator set up the learning design. The topic, the learning outcomes and the sequence of three learning activities were presented to all partners of the WP4 Pedagogical Activities and to the coordinator of WP2 Housing Research. An intention to collaborate was established with UCLAN following the contacts established during the second international OIKONET Workshop in Cottbus.

The proposed topic is related to at least three items in the research matrix (see Deliverable 2.4 "Research mapping") namely 'The Section as Design Tool', 'The Public Private interface' and 'The Compact City'. On the base of this links the collaboration and involvement with UCLAN was elaborated. The tasks were refined and the role and involvement of UCLAN was described. Practically this meant that UCLAN:

- Would subscribe the overall learning design template;
- Would check the first list of resources and propose new resources;
- Would deliver a lecture to the KUL students;
- That the form and content requirements of Task "The mark of an educated mind" would be shaped according to the Oikopedia entries;
- Would read and give feedback/comments to the work students did in this task;
- Would travel to Gent to act as guest critic in the final review of Task "A slice of the urban world" and intermediate review of Task "A moment between U and I"
- If possible be involved in the final review of this task.

8.6 Outcomes

21 students participated in the OIKONET elective "SMALL is power". 17 students worked on the three learning activities and uploaded 46 assignments. Besides this, they each submitted a contribution to the "Thinking Dwelling" learning space and participated in the construction of the in situ installation for the final review. These results can be consulted on the Workspaces and on the "Thinking Dwelling" website and in the Facebook group.
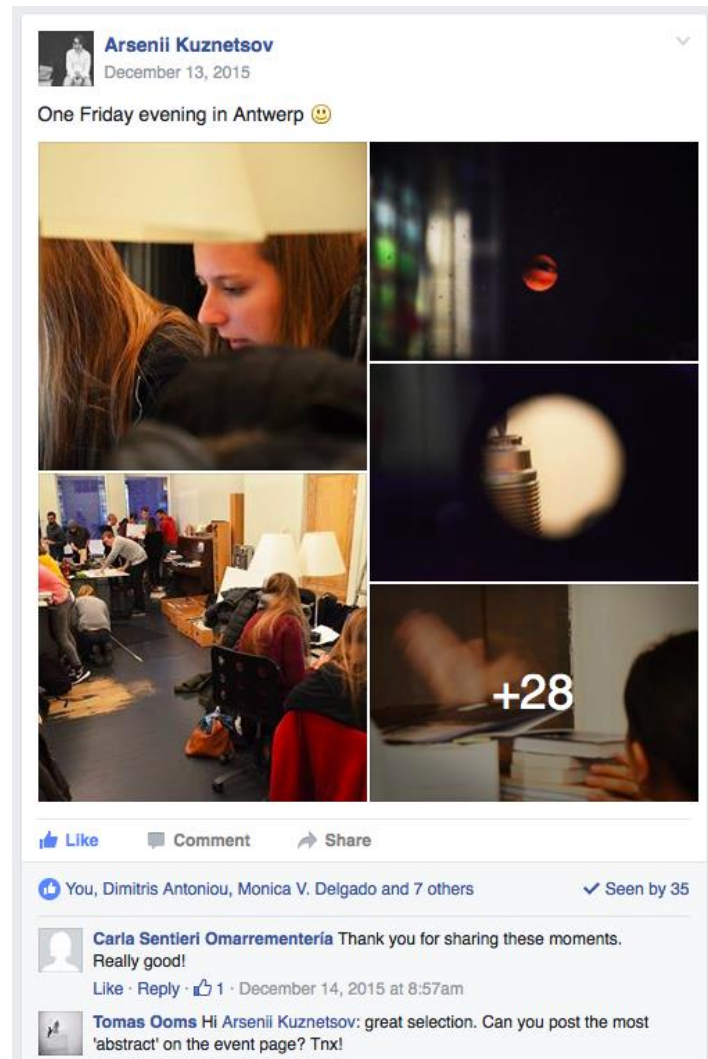
Figure 8.18. Pictures from the exhibition – screenshot from Facebook group.

2 students worked as editors and produced the templates, the final documents and worked on a final booklet that would include the work completed in the learning space. Besides, they managed the Facebook group and made sure the activities were reported.

2 students who joined the elective had participated in the second international OIKONET workshop in Cottbus. They were asked to compose and edit a report on the work done in the workshop which is available at https://issuu.com/claravangeel/docs/report_growth_shrinkage.

8.7 Evaluation of results

At this point it is important to remember the goals that were set for this learning space:

- To further develop the Urban Tomography;

- To reflect on the power of the small expressed in the relation of the private space and the public realm;

- To build a link with the topic and results of WP2 Housing Research;

- To publicly disseminate the work done.

The learning space linked very well to different aspects and events of the OIKONET and OIKODOMOS environments:

- Some of the outputs of the "Threshold Matters" learning space served as a resource for "SMALL is power", for example, the Urban Tomography methodology.

- As it will be explained in the next chapter, the reflection on the structure of the "SMALL is power" leads to a new approach to learning design in the next edition of the learning space in the spring semester (from a Waterfall model of learning design to Canopy model);

- Links to other learnings spaces such as "Thinking Dwelling" were created and integrated in the learning activities;

- Links to the second international OIKONET workshop were created through the writing of a student report (ISSUU publication);

- Links to the third International OIKONET workshop were also created: the focus on the 'SMALL' and some reading served as a starting point for the KUL students that would participate in the third international OIKONET workshop in Belgrade;

As with the "Threshold Matters" learning space, the Facebook group proved an adequate tool for fast and easy communication and notification.

To ensure a good understanding of the outputs and enhance their communicative aspects, the students produced templates, as we already did in the "Threshold Matters" learning space.

The fact that less partners participated meant less coordination and hence more time that could be allocated to teaching.

The role of students acting as editors had already started in "Threshold Matters" but it did not work as well as expected. This was due to the ability and competences of the students who volunteered to take on that role. Students performed well in this role within the elective course; it was mainly in the production reports addressed to external stakeholders where they did not do so well.

As it was one of the main goals to publicly disseminate the work done, the publicly accessible exhibition in Antwerp was a success. People passing by the exhibit enjoyed the results.

The students appreciated the short introduction lecture on the idea of the Super Block explored in the "Urban Systems" learning space at La Salle. They also valued the lecture by Adam Evans and appreciated his involvement in the course.

Here is a comment from a student on the involvement of Adam Evans in the course:

"The lecture was very interesting and gave us an atypical insight about architecture and its appropriation (more or less legal) by those who get in direct contact with it, by living or just passing by in those urban environments shaped by buildings. I also believe that the comments about our texts were objective and appropriate, therefore useful for us to improve the quality of those texts."

The involvement of UCLAN in the refinement of the learning design was paramount for the learning space coordinator. It helped to define the task and to enrichen the structure of the learning design. It also made sure the output definition of the tasks was clear and supported the use of proper concepts in describing the goals, topic and learning activities. The link between WP2 Housing Research and WP4 Pedagogical Activities has clearly been achieved within this learning space.

The linking of the form and content requirements with comparable outputs from within the OIKONET and OIKODOMOS environments are highly recommendable. This was for instance the case with linking Task 2 and the Oikopedia, with re-using some of the templates from "Threshold Matters" and with having the same task in two learning spaces (i.e., the Urban Tomography).

The most important critical reflection is to be made on the structuring of the learning design and the subsequent outputs. The way the Workspaces are built up and the way its methodology is applied easily leads to a waterfall model of learning design. By this it is meant that one learning activity (LA) is finished before another starts. Students need to complete a certain LA before they can start on the next. The learning space coordinator observed that in such a case students tend to not see the overall learning structure. As a consequence, the different outputs for the different tasks become too stand-alone. In the case of "SMALL is power" winter semester it is often difficult to see a clear continuation of a coherent reflection through the different outputs from Task 1 thru Task 4. In the learning design, Task 4 was proposed as a final designerly reflection on the topic of "SMALL is power". However, the outputs for Task 4 tended to lose the relation with the previous tasks. To remediate this another way of presenting and proposing the sequence of learning activities was used in the spring semester edition of this learning space. Instead of a waterfall model, a canopy model was applied. This will be described in detail in the chapter in the next chapter.

Even though the actual involvement of different partners was rather limited, it proved to be very effective. With a low investment a high return was produced, in the sense that students could be introduced to and confronted with other courses and other teachers outside their usual environment. It opened up the often closed environment of the classroom. That such a restricted and modest links with other curricula and other academic environments can generate this broader learning horizon is very stimulating for both students and teachers. This proves that this OIKODOMOS pedagogical model could be continued beyond the eligible period of the OIKONET project. It also proves that SMALL is power.

8.8 Conclusions and further steps

Three main conclusions and further steps:

- The 'waterfall' model of learning design, whereby each learning activity is a prerequisite for the next does not necessarily lead to the best outputs, so the 'canopy model' was used in the learning design for the spring semester version of "SMALL is power" (see further in this report Small is Power, second edition).
- Design briefs that rely on stringent development parameters and the critical engagement of others can be at risk of programmatic failure, and it is crucial to reflect

regularly on the progress of the project and position of the students and external support. It is prudent to quickly agree alternatives to ensure the project's success in case of unforeseen problems, and contingency plans should be designed at the outset.

- Despite the potential problems in a tightly controlled project of this nature, involvement of external partners (and from different disciplines) supports the students in an inter-disciplinary way of working. Even if this engagement is limited, if delivered at the appropriate points in the programme, and in the studio environment it helps shape a broader and deeper level of critical thinking.

9 SMALL IS POWER (SECOND EDITION)

by Tomas Ooms, Faculty of Architecture, KU Leuven, Gent/Brussels, Belgium & and Adam Evans, School of Art, Design and Fashion, University of Central Lancashire, UK

9.1 Introduction

The "SMALL is power" spring edition is built up on the conclusions of the previous winter edition. Based on the experience with and reflections on previous implementation, a new learning design was set up at the Faculty of Architecture KU Leuven (WP4 Pedagogy) together with UCLAN (WP2 Housing Research).

This second edition has a certain overlap with the winter version that is reported on in a previous chapter. Basically the topic and theme are the same in both learning spaces. The main difference is found in the learning design. As mentioned in previous chapter, the goal of the spring edition was to explore a different way to organise the learning, that is, evolving from a waterfall model to a canopy model of learning design. The main difference being that the final learning activities/tasks already starts at the beginning of the course and stays active. This can be represented as a "canopy". This canopy task is the main an overarching task which is supported by one or more sub-canopy tasks. In the case of this learning space there were two sub-canopy tasks.

The form of collaboration with the subnetwork Housing Research is the same and some of the tasks are also the same. The learning outcomes are also the same for both editions of the learning space. This made it possible to compare the results produced in the context of two versions of learning design.

For reasons of effectiveness this this chapter of the report will focus mainly on the differences between the winter and spring editions.

The focus and goals for this learning space were set as follows:

- To experiment with the canopy model of learning design;
- To further reflect on the power of the small expressed in the relation of the private space and the public realm (relevance of the course in the context of housing);
- To continue to develop the link between WP2 Housing Research and WP4 Pedagogical Activities;
- To publicly disseminate the work done.

Students and staff from the KUL collaborated with staff from UCLAN to reflect on the idea of SMALL is power.

9.2 Topic

See "SMALL is power" winter semester report in the previous chapter.

9.3 Implemented learning activities

The basic structure of the learning design is made of the canopy assignment "A moment between U and I" (the overall and main assignment which run the whole course) and two sub-canopy assignments: Markers and Sections.
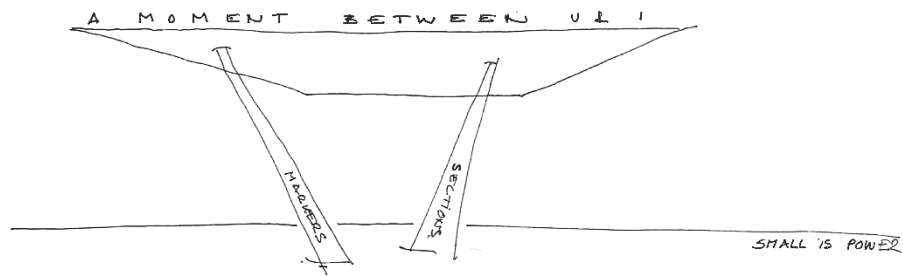
Figure 9.1. The Canopy Model Learning Design - Sketch representing the canopy task (main and overarching task) and the two sub-canopy supporting tasks.
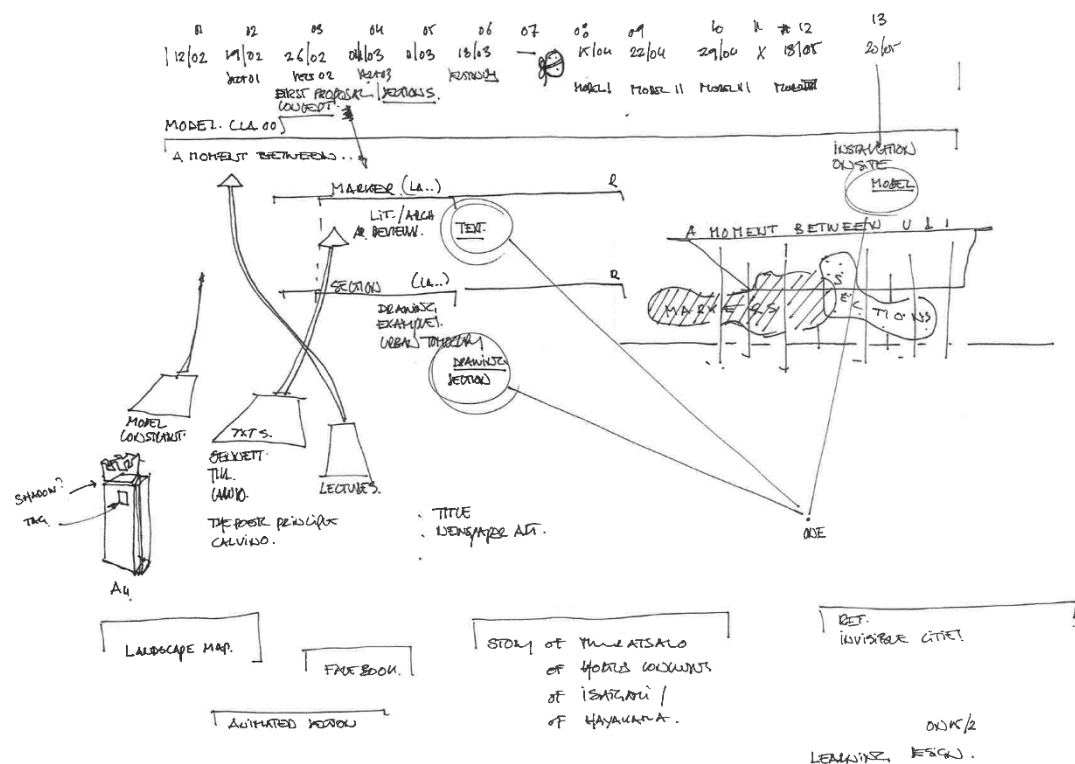
Figure 9.2. The Learning Design Progression - Sketch produced to organise and visualise the Canopy Learning Design. The figures on the top represent the weeks. The horizontal brackets the Canopy and Sub-Canopy tasks. The output is mentioned and given a place in the learning, the references and sources are mentioned. The different versions of sections and models are indicated.
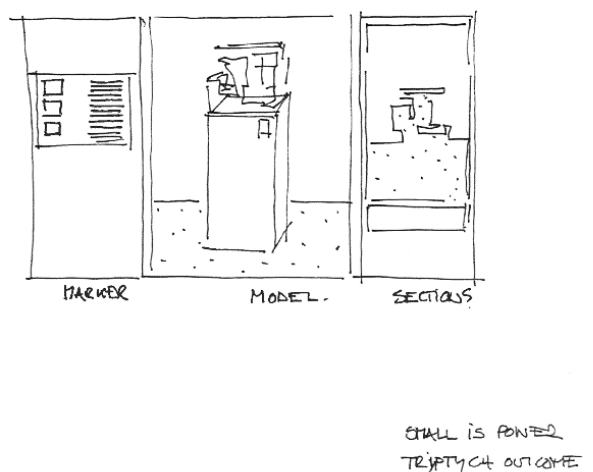
Figure 9.3. The Triptych output - Sketch showing the threefold output of the SMALL is power spring version that should be considered a whole.

The output of Task "A moment between U and I" was an architectural proposal derived from investigating the meaning of dwelling in relation to the public domain. It architecturally explored and designed how dwellings lock in to the public domain. Through this task, students explored and expressed the 'moment' when the private sphere comes in to contact with the public sphere. To represent this moment, students produced a model on an A4 base.

In order to support this proposal and design, two sub-canopy tasks were introduced: Markers and Sections. The sub-canopy tasks had a shorter running time and served to deepen and explore elements of the canopy task. Hence they aimed at generating a better understanding of specific elements of the canopy task and feeding in to it as an iterative process.

To further support and enhance the results, different versions of the different outputs were requested to students. This happened on a weekly basis. The students produced three versions of the sub—canopy output and at least three versions of the canopy task.

In the progression of the different versions (the iterative process) there were moments in which Adam Evans from WP2 Housing Research was involved, in particular:

-   A first one focussed on the sub-canopy task Markers. Adam read the second version of the output and gave feedback on this. Hence, the students reworked the text adapted to a given template (the same is the Marker template in the winter edition and formally the same as the Oikopedia entries). The feedback session was organised as an on-line event over Skype.

-   The second moment happened at the end of the course and was a live desk crit session. Adam Evans visited KUL and joined the OIKONET elective course as a guest critic. The second version of the models (Canopy task) were discussed in a plenum desk crit. Adam used Erasmus+ Mobility funds to travel. He also participated as guest critic in the Master design studio.

Besides the different ways of organising the learning design, the main differences with the winter edition are the following:

•   There was no Urban Tomography as a learning activity/task;

•   There were no perturbations that caused a cancellation of key events in the learning design;

- A clear iterative process of producing different revised versions of the expected output was explicitly introduced.
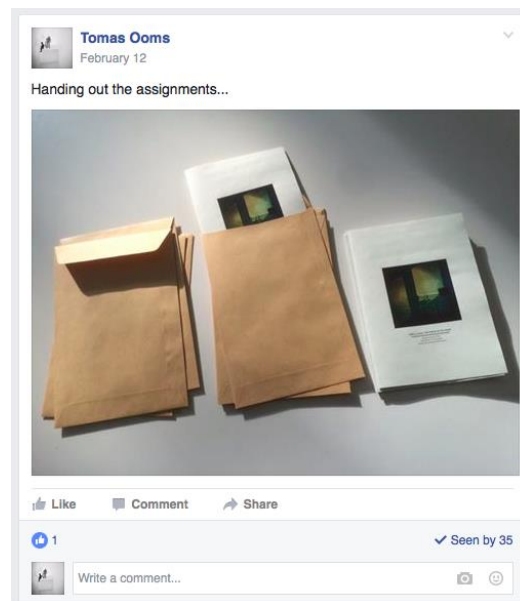
Figure 9.4. Handing out of the "SMALL is power" spring semester course brief. The assignments and learning design were handed to the students under closed envelops - Screenshot from the Facebook group.
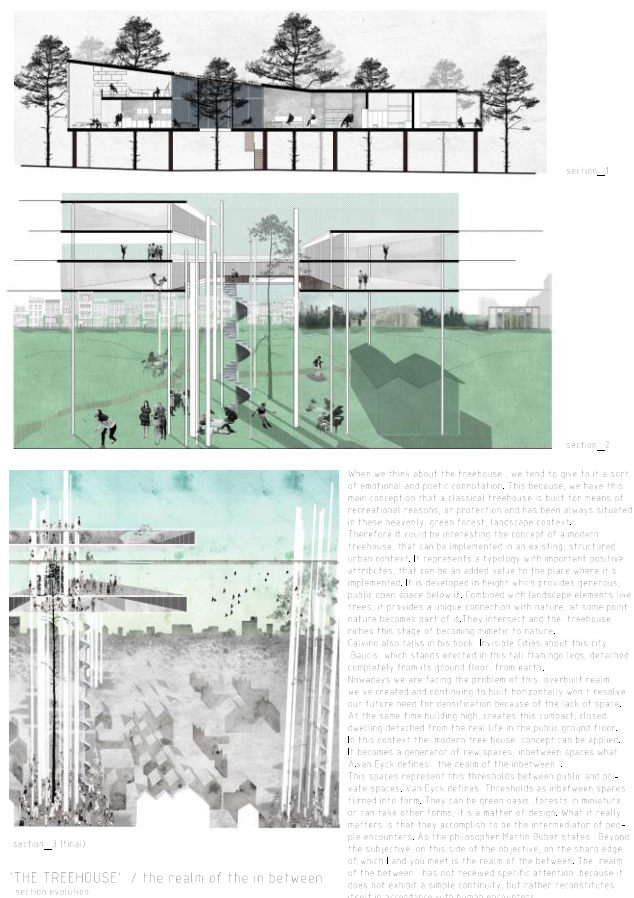
Figure 9.5. 'THE TREEHOUSE' / the realm of the in between - showing the section evolution - example of student work - Jora Kasapi

OIKONET
SMALL IS POWER:
TEXTS- FEEDBACK

1. Diana Maracineanu
Duality
This is a decent passage which quickly links to the everyday rituals and feelings one might experience within a home and juxtaposing that with the notion of broader city culture. This sets up the story well- if there is a collection of many facades, all telling a slightly different story, what might be the overall story of the city? Is it a patchwork quilt, or is it more rationalised and streamlined? How might this affect your concept development- are you exploring at house and city scale- are you testing the multiplicity of many homes with the agenda of the city? This could be an excellent experiment, and how you then celebrate these dualities that you are discussing. Maybe it is not as literal as Holl's Storefront For Architecture, but more about ritual and perception of home and city?

2. Mandana Fouladi
The Continuity
Your text is well supported and the images are clearly described. You clearly discuss the differences in scale and attitude between the city and the home, And what becomes interesting here is your attention to the quality of the street rather than the home, as an assemblage of things and materials. You then continue to discuss the idea of being invited for a cup of tea- this makes one consider the possibilities of the door/window as an element that relates these two seemingly different worlds as one world of bits, some kind of cultural bricolage. Could this be explored in your design development? How might the story along your moments of design alter and change according to these great qualities you might explore?

3. Jessica Bardella
Blending In
You offer a very factual description of the portico, and then continue to describe, but maybe then more critically, the idea of how houses are separated from the street. This is interesting, as you are coming at this from a pragmatic perspective- which could be strong if there is a critical pragmatic approach followed in your design. How might a series of structure/spatial based experiments explore the phenomena associated with natures of enclosure, varying degrees of privacy, publicity and inside and outside? Does this strike up debate amongst spatial practitioners as well as debate between the occupiers of the spaces? Does this become a liminal space, a marginal space, one which cannot be quantified, but instead has many qualities? How do you explore these liminal spaces in your design development? You might think about trying to draw the quality of the space through your section without the buildings.

4. Jora Kasapi
The Treehouse
It is interesting to see your text discuss the treehouse in other terms than the usual associated with the romantic view of being close to heaven- as in 'nest' by Bachelard, and instead you talk about the idea of the treehouse as a typology of space that might lead to practical solutions, but also might deal with issues surrounding a new spatial realm. This is interesting, as there are spaces underneath that could have as much merit as the spaces over/above. If there is a surface, we have to walk on it, because of gravity- but what becomes of the spaces below, in between the ground level, underground maybe, and any walkway? What becomes of the space that the piloti puncture to carry the enclosures? These could be explored really well through your design development- the question is, how

Figure 9.6. Transcripts of the feedback students received from Adam Evans (UCLAN, WP2 HOUSING RESEARCH) during the on-line review.
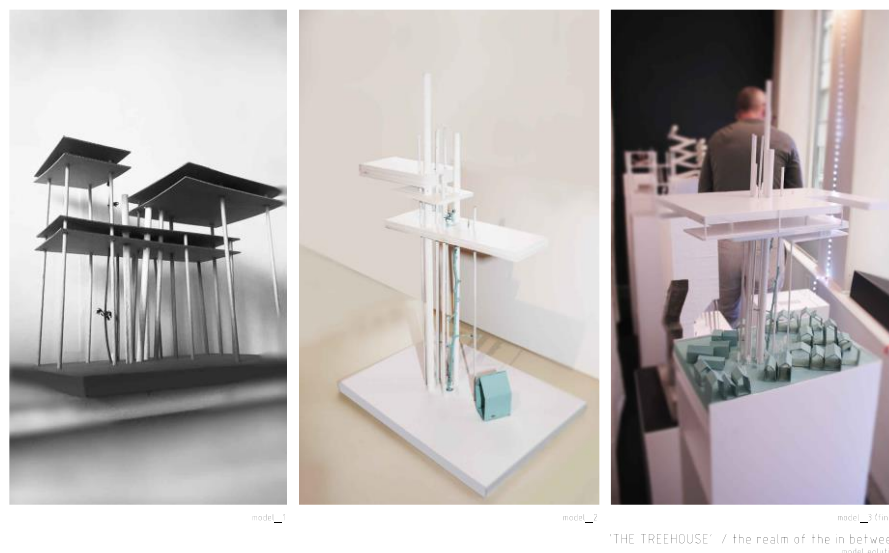
Figure 9.7. 'THE TREEHOUSE' / the realm of the in between - showing the model evolution - example of student work - Jora Kasapi
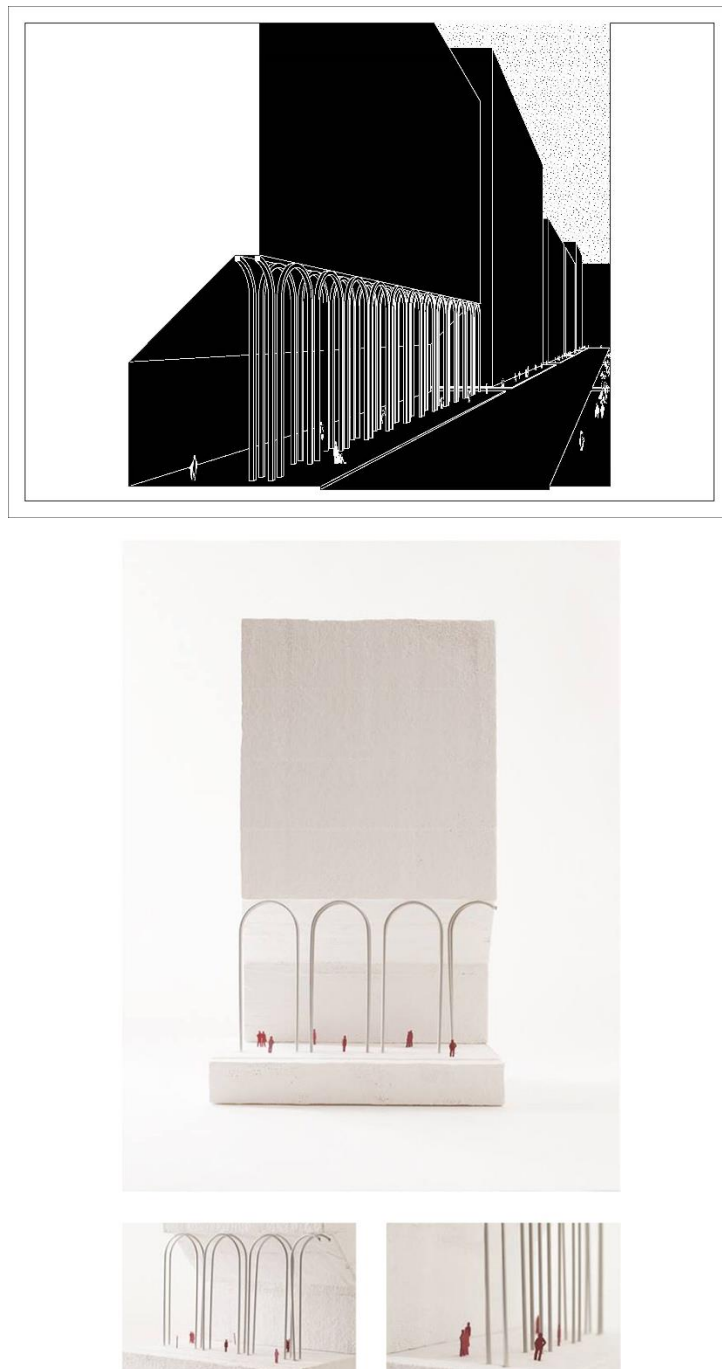
Figure 9.8.Blending In - Example of final Section (above) and Model (Below) output - student work - Jessica Bardella
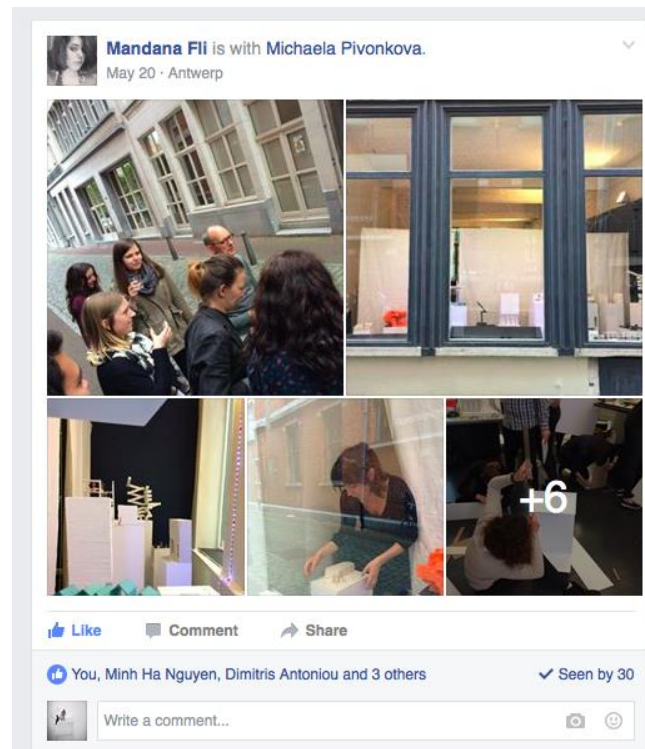
Figure 9.9. "A moment between U and I" - setting up and opening of the exhibition in the Studio Tuin en Wereld Gallery in Antwerp - Screenshot from Facebook group.
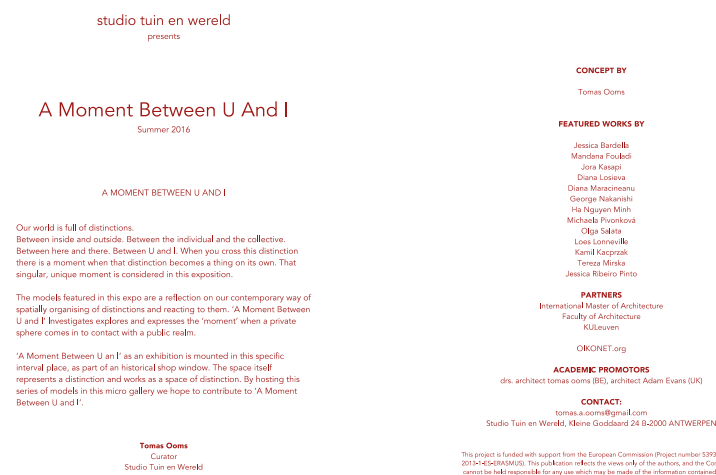
Figure 9.10. Exhibition colophon - text as mounted in the Studio Tuin en Wereld Gallery explaining the framework of the models and indicating it as an OIKONET related event.

Figure 9.11. So I'm sitting in my studio … Screenshot from the Facebook group showing reactions from the general public on the exhibition, showing different partners following the events in "SMALL is power" and showing students from the winter semester also following the events.

9.4 Blended-learning environment

The elective was organised as a compressed design seminar. As on-line learning environment the Facebook group from the winter semester continued being used. This meant that the students that participated in the winter semester could follow what was going on in the spring semester.

The OIKODOMOS Workspaces were not used since there was no added value considering that no other students then KUL students would be participating. Dropbox, Facebook and Skype were used in the same way as during the winter semester.

9.5 Collaborative activities

The learning was designed in coordination with UCLAN. The output and methods of feedback and review were jointly decided upon. As mentioned above, there was an on-line review and a live desk crit.

12 students from KUL participated. One teacher from KUL and one from UCLAN worked together to set up and conduct this OIKONET elective course. Each student produced a minimum of three versions of the triptych output: Section, Marker, and Model.

The template used for the Marker sub-canopy task is the same as the one used during the winter semester creating a coherence of output over the two workspaces

9.6 Outcomes

All final models were exhibited in an exhibition "A moment between U and I" in the improvised gallery Studio Tuin en Wereld. The exhibition opened on the 20th of May and remained open till August 15th. The exhibition is publicly accessible "24 hours-a-day/7-days-a-week" as it is an extended part of the public space.

At the time of writing two students are working on a publication on the results on a voluntary basis. This publication will be published on ISSUU.

9.7 Evaluation of results

The experience of teaching in a different institution with a different set of students brought an interesting scenario which deserves to be expanded and refined in the future. The students that consulted with the teachers from both KUL and UCLAN on the same studio day generated dynamic discussions through the presentation of their development work. Throughout the

course of the day, all students fully engaged in the process, and it became clear that they were making important links between both projects within the learning structure of "SMALL is power". Furthermore, the students took broader cultural issues into their design development that linked the issues of domesticity with urban actions and, at times, subaltern and liminal urban activities. This was very interesting to witness, and deserves to be continued.

The link between research and teaching began to crystalize also, in three clear ways. Firstly, some students were referring to Adam Evans's lecture on Room Archaeology throughout their design process, which in turn draws on certain elements of housing research (as happened in the winter semester). Secondly, students were linking their previous research into housing research publications into their project work, and in turn their design development was enabling them to reflect on their previous analysis, and indeed the writings they had read. Lastly, during the studio consultations, the distinctions between 'researcher' (UCLAN) and 'teacher' (KUL) became less apparent, as conversations framed teaching, practice and research. It is hoped that this triangulation of pedagogy, practice and research can be further developed and framed in a formal way for students in the future.

It seems relevant to position the elective course within the OIKONET project. First of all, it is continuation of the "SMALL is power" winter version. Secondly, it is a further development of the collaboration between WP2 Housing Research and WP4 Pedagogical Activities. The output of the sub-canopy task Marker is inspired on the Oikopedia and takes the same formal requirements as its base.

The "SMALL is power" concept introduces participating students and teachers to the idea that a vast range of information from macro scale can be collected from the study of the micro scale, or a fragment of architecture. This concept became a vehicle for exploration for KU Leuven students during the preparatory tasks of the third international OIKONET workshop in Belgrade.

It would have been better if other students from different universities would had participated in the learning space. Unfortunately, there were very few partners that could involve students in the course. It is the coordinators hope that the "SMALL is power" learning space could experience a re-run with other participating universities. Suggestions for this could be to organise this as a summer school, an international workshop or maybe a MOOC. The learning design of "SMALL is power" seems at first glance to have a feasible structure to be developed as a MOOC or a blended learning course.

A publicly accessible exhibition is a powerful tool for communicating the results. People takes the time to stop and look at the models on display. The question remains of course if the idea behind the models gets across. No effort has been put into to confirm if this is the case. On the other hand, the idea of the exhibition is in itself a demonstration of another central idea of "SMALL is power": the fact that the private sphere can contribute to the quality of the public realm.

Student feedback for the two editions of the learning space "SMALL is power" was obtained via on-line questionnaires. The main findings from the answers received are the following (see Deliverable 6.3 for a detailed report of the evaluation):

- for most students expectations were fully met or even exceeded; the learned terms they had not use before in their studies (tomography, threshold) and the ideas they developed were relevant for their own design studio work.

- the coursework was well-structured course and offered a good and clear way of learning,

- students expected more interactions with students and teachers from other institutions; they

proposed to have an international workshop in conjunction with the course.

9.8 Conclusions and further steps

The relationship between the "SMALL is power" learning space and housing research is relevant for several key reasons. In general terms, there is an advantage for students to undertake a rhetoric design project that is underpinned by the examination of relevant peer-reviewed publications. The advantage for students is twofold: it introduces them to the importance of academic research and its applications to practice and, in turn, it helps them to substantiate and validate their own design development in framing their work in the reality of housing.

The "SMALL is power" learning space provided an alternative architectural platform for urban inquiry. By exploring the internal, small scale domestic space and cultural issues of domesticity, students were able to then expand this inquiry back into the larger urban scale.

The design process and final interventions produced by the students aided a reflective process for students, teachers and researchers in furthering the discussion of a pedagogic and architectural practice-based, research-led teaching paradigm. The "SMALL is power" learning space has now acted as a springboard for a future research project to interrogate the small scale in the future of global dwelling.

10 URBAN HOUSING REGENERATION

by Jim Roche, School of Architecture, Dublin Institute of Technology, Ireland

10.1 Introduction

The Urban Housing Regeneration learning space was implemented during the winter semester 2015/16 by the School of Architecture of the Dublin Institute of Technology (DIT). This involved designing a learning space for fourth year Architectural Technology students for their project on the redevelopment of a social housing project in inner city Dublin. At the subnetwork meeting in Bratislava the following institutions expressed an interested in collaborating on this learning space through commenting on the students' work: BUT, CHALMERS, AAU, ETSA-UPV, LA SALLE, ISCTE-IUL, KUL, FASTU, UCLAN, UGA and AF BELGRADE.

10.2 Topic

The technical studio project around which the workspace was based involved collaboration between the DIT Architectural Technology students and staff, Dublin City Council (DCC) Housing and Architect Officials, four professional architects and some residents of the blocks under study. Working in four groups of five students for ten weeks, in a simulation of architectural practice, the student groups undertook a realistic design, planning and technical academic exercise following consultations with the DCC officials and residents and regular weekly briefings by each group's assigned professional architect.

Figure 10.1. Constitution Hill area with the three blocks on the left

The site, on the northwest fringe of Dublin's inner city, abuts an adjacent bus depot, is near a former railway station building and is close to the new DIT Grangegorman campus. A new light railway will run along its northern edge. There are three five-storey blocks of apartments (Figure 10.1) with the typical arrangement of ground floor single storey units and 4 floors of maisonettes with deck access above. There are 89 residential units in the blocks and one unit currently used as a créche facility. The blocks are generally structurally sound but the apartments do not meet the standards that new buildings would provide in terms of floor space, room sizes, private open space, accessibility, fire safety, energy performance and building fabric standards and thus the students' task was, guided by their professional architect and the DSA – DIT studio staff, to develop a design and technically competent regeneration solution.

Figure 10.2. Visiting the site with DCC officials and residents

The specific topic for this OIKONET learning space was for the students to represent the three stages of the project in the form of posters and to respond meaningfully to commentaries by OIKONET partners. In essence it was about Representation.

10.3 Implemented learning activities

The learning activities of the learning space related specifically to the graphic and written representation of the students' proposals, in the form of posters. Students were given a short intensive course in In Design, a desktop publishing software programme, and issued with a template to arrange an A1 group poster to explain their project. Students uploaded their projects, which were then reviewed and commented on by teachers from other schools of the OIKONET network, which later informed the students' approach to subsequent tasks.

The actual stages of the technical studio project included;

- briefing by DSA/DIT staff

- site visit, inspection and analysis

- meeting and interviewing the residents and housing officials

- research into demographic housing needs, best practice precedents and environmental performance and technical solutions

- reviewing and developing design solutions guided by the designated architect on a weekly basis

- preparation of a comprehensive design solution including new housing typologies

- preparation of a Planning Permission application including all relevant drawings

- preparation of a Fire Safety Certificate application including all relevant drawings

- preparation of a Disabled Access Certificate application

- preparation of a series of posters of the different stages

- preparation of a final presentation explaining the proposals to the DCC Housing and Architect Officials, the resident representatives, the architects and DSA staff

These were condensed into three main stages or milestones and it is around these that the on-line tasks were set thus:

- Task: Site analysis, environmental response and sketch design proposals

- Task: Developed design investigation, regulations audit and planning drawings

- Task: An overview of the whole process

These coincided with studio deadlines with the poster required to be completed and uploaded to the OIKODOMOS Workspaces within one week of the studio submission.

The detailed task descriptions were as follows:

- TK: Site analysis, environmental response and sketch design proposals

Each group is to firstly describe and analyse the site characteristics with sketches, drawings and text. They they should outline the initial design proposals to be developed with the assigned architect. These studies should identify between 3 and 5 key elements of the proposal ranging from an urban site response to technical and environmental considerations. This part should include existing and proposed plans for the apartments if sufficiently developed.

A short written reflection (maximum 150 words) on the brief for the project and the meeting with the residents, DCC officials and their assigned architect. Identify 3 to 5 important things to be achieved in this project that would greatly improve the residents' dwellings.

All to be arranged on one A1 sheet in Indesign to the required template and a pdf of the sheet (max size 1MB) and the text to be uploaded to the OIKODOMOS Workspaces.

Students were requested to respond meaningfully to any written comments from OIKONET partners. Here follows an example of this task with some commentaries and responses:

Figure 10.3. Submission by Group 3 and comments by Carla Sentieri from ETSA-UPV and response by student Seán Colley

- TK: Developed design investigation, regulations audit and planning drawings

This task required the students to design another poster to demonstrate their development of the designs and their auditing and application of regulatory requirements into planning and fire safety certificate drawings. Each group's poster had to provide a specific set of drawings, a schedule of accommodation and a short reflective text on how and why the scheme developed the way it did, what the challenges were, the advantages and disadvantages of decisions made, how compliance with code impacted on the design and how the overall solution is beneficial to the regeneration of the neighbourhood.

Figure 10.4. Submission of Task 2 by Group 1 and comments by Martin Cojo Angel of LA SALLE and response by student James Fennelly

- TK: An overview of the whole process

This task required the students to compose one large poster and write a reflective text that synthesized the entire process and their experience of it and upload these to the workspace. The text was required to critically reflect on the entire process especially on working with the architects and to comment on the feedback from DCC officials and DSA staff at their final presentation. They were asked to identify what worked well and what they would have improved on or done differently. It was expected that their final poster would address some of the comments made by OIKONET teachers on the previous two tasks.

Martin Cojo, Angel on [07/03/2016]:

Dear group 4,

I didn't have the opportunity of commenting your previous work before this last submission but I agree with some my colleagues who commented on Task 2; I think that you did a rational and serious proposal achieving big improving on the quality of the housing (in terms of it energy efficiency but also in the housing standards, the quality of the domestic spaces, etc) in a very simple way. I mean that it seems that your solutions looks 'natural' like if it was the logical solution for a complicated problem. I guess that you made the right decisions at the different levels of the problem. Congratulations.

Fitzgerald, Jamie on [08/03/2016]:

Thank you so much for the comment, We really appreciate it.

We wanted to Resolve all problems and issues presented to us from both current occupants, Our architect daniel cole And our Lecturers. Our main task was to improve the engergy status which seemed to be the stem of a lot of our original issues.

Regards,

JJPAC

Steinø, Nicolai on [11/03/2016]:

A few comments on how you present your work (not the actual design):

A very well presented work. The posters have a clear narrative structure and the graphics communicate very well. A bit odd though, that the title is to the far right, although I sympathize with your pale green graphic 'brackets' [ ] left and right.

Computer-rendered, photo realistic drawings is a very demanding art form as the eye immediately spots everything which is not as it would expect. Using an over-sized wood texture for the top-floor facades is very corny and subtracts from an otherwise convincing presentation. The same goes for hovering men and women in business suits in a space which looks like a furniture store.

If you do not add everything the eye expects (such as books in book cases, light fixtures, stuff on table tops and cast shadows which indicate that people are actually on the floor, not above it), it is better to use a more graphic rendering technique, rather than aiming for photo realism. This may be achieved through post-processing of computer-generated renderings in Photoshop or similar software.

Fitzgerald, Jamie on [14/03/2016]:

Thank you for your thoughts on our presentation. We were very happy with our final layout, but will take your views into consideration.

Figure 10.5. Submission of Task 3 by Group JJPAC and comments by Angel Martin Cojo of La Salle School of Architecture and Nicolai Steinø of the Department of Architecture, Design and Media Technology, Aalborg University and responses by student James Fennelly.

10.4 Blended-learning environment

These students worked mostly on-site in the studio but once the first task was completed and initial comments had been made by OIKONET partners these began to impact on subsequent stages and on the students' overall learning. The two subsequent posters were designed by the students both to explain the project to an on-site audience (for the studio and final presentation) and on-line reviewers (for OIKONET colleagues).

10.5 Collaborative activities

In this learning space were no collaborative activities between DIT students and students from other partner institutions. However, there was pedagogical collaboration between the students and staff from other OIKONET partner institutions. Not all partners noted in the introduction above were available to collaborate when the time came to do so. Nevertheless, a significant number as listed below were able to provide useful comments on the students' work:

Alexander Asanovicz and Andrzej Tokajuk, Faculty of Architecture, Bialystock University of Technology, Poland; Angel Martin Cojo, La Salle School of Architecture, Barcelona, Spain; Viera Joklova, Faculty of Architecture, Slovak University of Technology, Bratislava, Slovakia; Carla Sentieri, School of Architecture, Polytechnic University of Valencia, Spain; and Nicolai Steinø, Department of Architecture, Design and Media Technology, Aalborg University, Denmark.

In addition, Noel Brady DSA - DIT, Dublin and Oksana Chabanyuk, KNUCEA, Kharkiv, Ukraine and Erasmus Scholar at DSA / DIT, Dublin also commented on the students' work.

Much of the early commentary from OIKONET partners focused on urban and architectural critiques. While this was not the primary focus of the technology students' project the students' appreciated the comments, learned from the critique and responded reasonably well. There was not time for them to address all design issues however and the search for a perfect design had not been the core of the project, it being focused primarily on environmental, regulatory and technical exercises.

The blended-learning space has enabled teachers from six different schools involved in the OIKONET network to get to know the assignments and outcomes of DIT students and to evaluate them and engage in a critical discussion with them. These teachers have brought additional insights, which have enriched the learning process for the DIT students. In addition, students in this case, had to develop communication and presentation skills in a particular medium and to communicate the design intent, the detail design, regulatory approval and technical detailing processes to other teachers with whom they did not have direct contact.

10.6 Outcomes

The DIT students uploaded a total of 12 posters between four groups.

Eight teachers from OIKONET partners contributed comments on the students' posters, some several times.

The project descriptor which was uploaded could serve as a useful resource for future editions of the learning space.

10.7 Evaluation of results

The results of the students' activities, both the design of the posters and the on-line commentaries, were evaluated by the author and agreed with the module coordinator. These were accorded an apportionment of 5% of the overall grade for the studio with 50% of this allocated for Task 3, thus embedding this learning space into the studio structure.

More general evaluation was done in discussions in the studio and after the final presentation to the DCC officials.

10.7.1 Evaluation of student feedback

Student feedback was collected via on-line questionnaires (see a comprehensive report in Deliverable 6.3). The main findings of the evaluation can be summarized as follows:

- the course met the students' expectations: to get a better understanding of urban housing regeneration, to discover new design methods, and to see how an architectural technologist is involved in the construction and design stages.

- they appreciated the possibility of getting comments and feedback from external representatives through the online platform.

- the tasks were clearly defined and made sense within the overall structure of the learning space

- they appreciated receiving comments from teachers from other institutions, but they would have preferred receiving more frequent comments and especially while working and not only after the completion of their project.

10.8 Conclusions and further steps

There is no doubt that the exercise in preparing the posters for an anonymous on-line audience, uploading it to the OIKODOMOS Workspaces and then considering the comments and preparing reasoned responses to them helped the students' learning. This is evidenced by their responses to an OIKONET on-line survey where a majority of students responded positively about the collaboration.

In reply to the question "Did students / teachers of other universities comment on your work- If yes, did you find their comments useful?" 80% responded positively in the 7-10 range with one student noting: "There were some great comments left on the work, some there to help you and others that really motivated you and gave you confidence in the work you have done by giving positive and constructive comments on all aspects of work." And in response to the question: "Do you think this learning experience is worth to be repeated in the future"; 100% of student responders answered "yes".

In this sense the on-line collaboration offers a pedagogical tool for reuse by others.

11 URBAN SYSTEMS

by Leandro Madrazo & Angel Martin Cojo, School of Architecture La Salle, Barcelona

11.1 Introduction

The learning space "Urban Systems" was implemented in the winter semester of the academic year 2015/16. The initiative came from the School of Architecture La Salle, and it was developed in conjunction with the elective seminar on "Research on contemporary housing". Other partners were invited to join the learning space, including those of WP2 Housing Research. Also, external organizations to the network were contacted to take part on the learning activities, such as planning agencies neighbours' associations.

The participant organizations were:

- School of Architecture La Salle, Barcelona, Spain.

- Chalmers University, Sweden (partner of subnetwork Housing Research)

- BCNecologia (planning office of the city of Barcelona)

- Neighbours' association of Les Corts (a neighbourhood in the city, used as case study)

- Teachers and students from other OIKONET partners' schools.
    - KUL
    - FASTU

After the activities at the seminar at LA SALLE were finished (in January 2016), the University of Thessaly (UTH) continued working in the next semester, developing new tasks and using the results of the seminar at LA SALLE as learning resources for their students. Teachers from LA SALLE introduced UTH students and teachers the work done via Skype in an open lecture on May 17, 2016T(http://www.arch.uth.gr/en/activities/page/3) and answered questions from them.

11.2 Topic

The purpose of the learning space is to introduce students to the notion of urban system, understanding its basic principles and applying it as an instrument to understand and transform existing urban environments.

Understanding the city as a system means to take into consideration –all at once–: 1. the components that make a particular system, not only the physical elements such as the buildings or streets, but also the dwellers that inhabit the spaces and 2. the interactions between the different components (e.g. between urban spaces and structures, dwellers and spaces, etc.).

The "Superblock" model proposed by city planning office BCNecologia was taken as an example of an urban system which is part of a larger system (e.g. the city of Barcelona). With regard to the case study, the objective of the seminar was to develop an understanding of urban models using the Superblock of Les Corts district as a case study.

11.3 Implemented learning activities

The activities that were carried out during the fall semester of 2015/16, from those described in the learning plan, have been the following:

LA: OBSERVING/APROACHING PEOPLE/IDENTIFYING ISSUES (October)

The purpose of this activity was to gain first-hand knowledge of the study area and of its inhabitants.

- **TK: Approaching the neighbourhood**: Visiting the Les Corts district and interviewing neighbours to get their views about some the social and urban objectives included in the superblock project. Students visited the area with a map and a simple questionnaire. They met neighbours in the street and asked them to mark in the map the positive and negative aspects they perceive in their daily live. Then, students summarized the findings in diagrams using a communication language that could be easily understood by laypersons.

Figure 11.1. Submission of Task 1 by student Maria Paulina Gómez, School of Architecture La Salle

LA: UNDERSTANDING URBAN SYSTEMS (October-December)

The purpose of this activity was to understand the basic theoretical principles of the three key concepts: Urban system, Compact city and Superblock.

LECTURES: Introducing key concepts (lectures F2F or via teleconference)

- "Superblock". Lecture by Cynthia Echave
- "Compact cities". Lecture by Jaan-Henrik Kain (https://www.youtube.com/watch?v=x-6Ri_-NIEk&feature=youtu.be)
- "The city as system". Lecture by Leandro Madrazo

- **TK: Mapping indicators**: The purpose of this task was to identify some of the indicators (social, psychological, urban) which are used to define the Super-Block of Les Corts (e.g. density, security, mobility, green spaces, socialization, noise), and

identify the interrelationships between them by means of a concept map. The selection of the indicators was based on the documentation available in Workspaces, in the information facilitated in the lecture by Dra. Cynthia Echave as well as in the impressions received from the visit to the area.

Figure 11.2. Submission of Task2 by student Scott Lenton, School of Architecture La Salle

Figure 11.2 illustrates one of the works produced by students. After studying the available documentation describing the superblock, the student produced a concept map grouping and relating the key concepts. Dr. Cynthia Echave, of BCNecologia, commented the outcomes of this task in OIKODOMOS Workspaces.

Example of comment by Dra Chyntia Echave of BCNecología:

The reflexion about single and multiple connections is correct, it is important to pay attention to the relation between concepts. In this case, the link between social cohesion and efficiency will lead to policies and regulations that guarantee basic supply of services in terms of energy, waste and water. These basic services should enable a person to live with dignity.

- TK: Mapping compact cities. The purpose of this task was to find out correlations between superblock and compact cities. With this purpose in mind, students were asked to relate the categories used by Chalmers researchers to describe a compact city with the indicators used to define a superblock that had been mapped in the previous Task 1.

The relations were represented by means of a concept map. The selection of the categories of the Compact Cities will be based on the readings available in the resources area of OIKODOMOS Workspaces:

- "The Compact City Fallacy" (2005), by Michael Neuman
- "Urban Planning for City Leaders" (2012), by UN Habitat
- "Towards a regenerative paradigm for the built environment" (2012), by Chrisna du Plessis
- Information facilitated during the lecture by Dr. Jaan-Henrik Kain.
https://www.youtube.com/watch?v=x-6Ri_-NIEk&feature=youtu.be
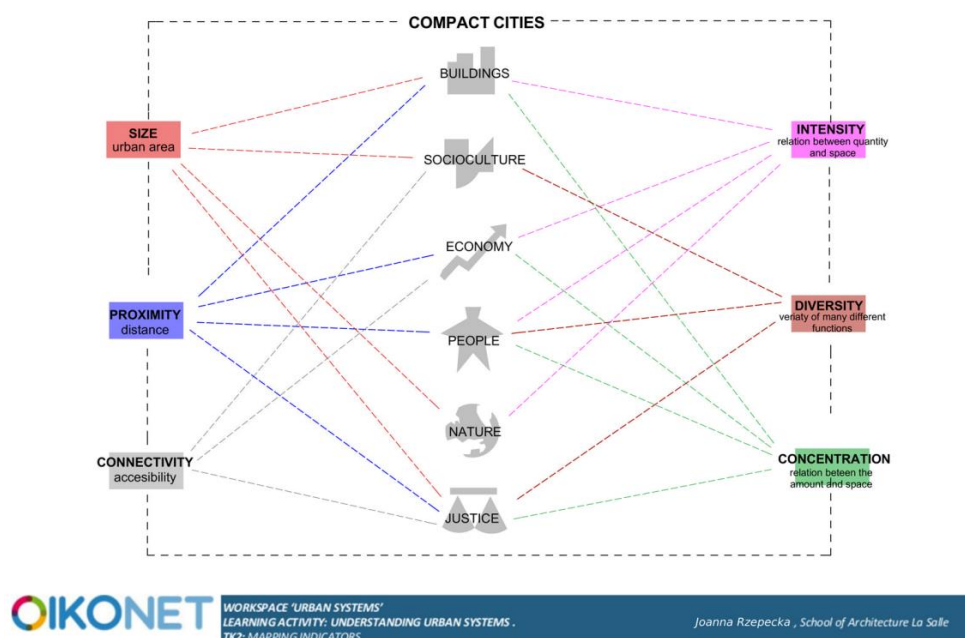
Figure 11.3. Submission of Task3 by student Joanna Rzepecka, School of Architecture La Salle

Figure 11.3 illustrates one of the works produced by students. The set of parameters that are used to characterize a compact city (size, intensity, proximity, diversity, connectivity, concentration) are mapped to the elements that make a compact city, considered as a system.

Dr Jaan-Henrik Kain, from Chalmers University, could comment the outcomes in OIKODOMOS Workspace.

Examples of comments by Dr Jaan-Henrik Kain, Chalmers University:

You have developed a very good starting point for discussing the properties that were represented by the boxes of the matrix in my lecture (the ones with different colours at the end of the lecture). The examples you provide show well how you are approaching this task form a generic perspective. To further strengthen this approach, I think it is important to be locally specific, i.e. what are the important indicators for Les Corts.

I miss three things in your presentation:

1. Adaptability over time is not discussed at all, which I think is a critical issue. Maybe this can be added as an additional column on the right hand side in page 2?

2. What are the links to the indicators used to define the Superblock of Les Corts?

3. Suggestions for additional properties, i.e. not already presented in my lecture.

- **TK: Reflecting on urban systems**. After being introduced in an indirect way to the notion of urban system in the previous two tasks –by identifying elements and relationships of the superblock and the compact cities– this purpose of this task was to establish some key principles of general system theory and to its application to urban planning. Following an introduction to system theory given in the classroom, students read two texts to gain a deeper an understanding of system theory and its application in planning: "Towards a system of systems concepts", by Ackoff (1971), and "A systems view of planning", by Chadwick (1971). Then, the work to be done in this task consisted of two parts:

1.   Summarizing with a combination of diagrams and texts the ideas and concepts about systems and urban systems derived from the literature

2.   Representing the Les Corts superblock as an urban system, using any combination of diagrams, tables, flow-charts or maps, to convey the idea system
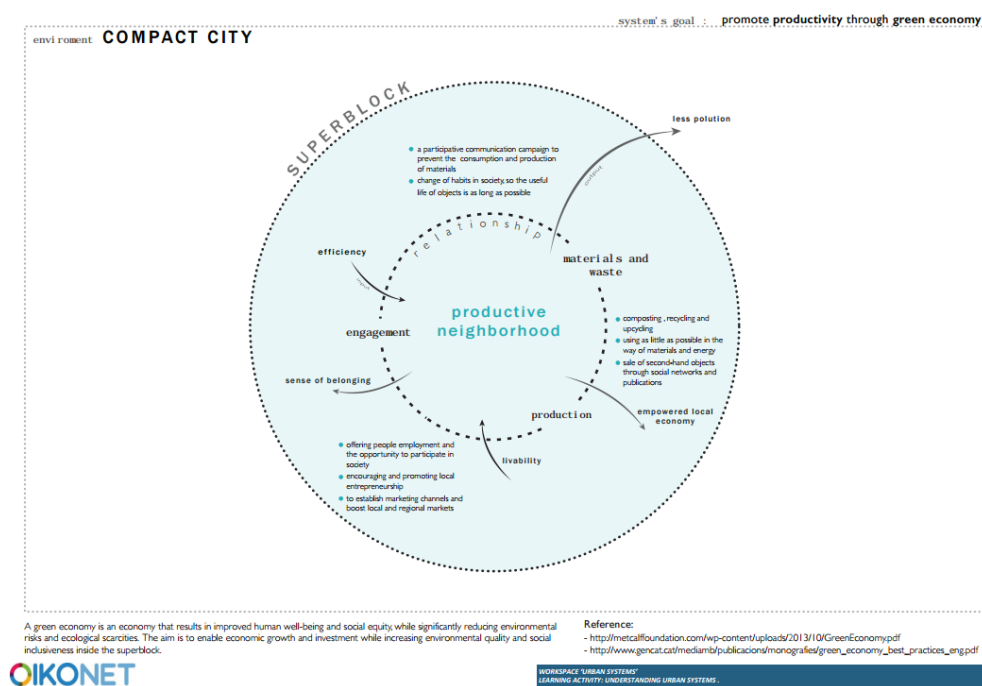
Figure 11.4. Task submission, by student Stefani Vozila, School of Architecture La Salle

Figure 11.4 illustrates one of the works produced by students in this task. In this example, the goal of the urban system is to promote a green economy, and the three key components of the neighbourhood understood as an urban system are the use of waste and materials, the engagement of neighbours and the production of goods from recycling.

LA: DEVISING AN URBAN SYSTEM (October-December)

Based on the knowledge acquired in the previous stages, the goal of the third stage is to create a model of the Super-block.

- **TK: Devising Urban Systems**. The purpose of this task is to make a proposal to improve the existing conditions of the superblock that takes into account the different elements involved, the relationships between them, and the objectives to achieve to assure the sustainability (social, economic, environmental) of the neighbourhood. The proposal consisted of two parts:

1.	A representation of the superblock as a system, identifying the shortcomings of its current state.

2.	A proposal to modify it with the purpose to solve some the existing deficiencies through specific action plans to be deployed over time.

The two elements of the proposal, the diagnosis and the action plans, were summarized in two A0 panels to be presented to the neighbours.
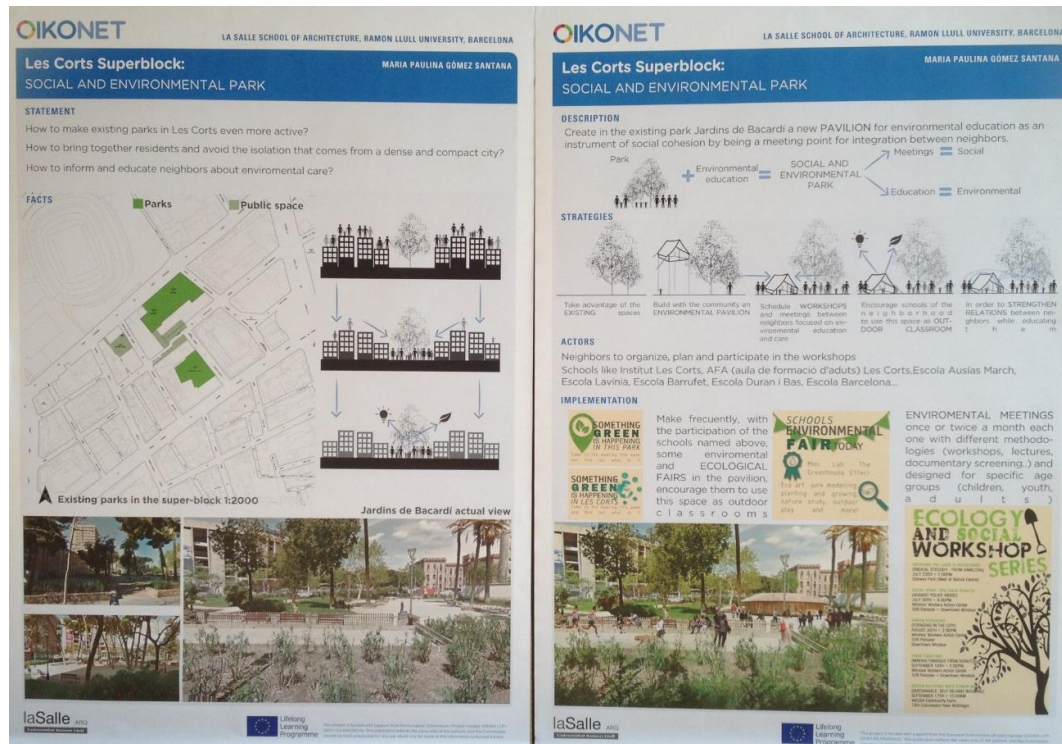
Figure 11.5. Submission of Task 5 by student Maria Paulina Gómez, School of Architecture La Salle

The works were reviewed and commented in an on-line session with Tomas Ooms from KU Leuven. Then, students wrote a short bullet point summary of their dialogue with him.

Example of summary by student Kamil Kackmarek:

The discussion with professor Tomas Ooms about the Task 5 was very informative and helpful, it consisted of few main points worth mentioning:

- *•good observation of conflict between history and new grid of superblocks*

- *idea of superblock doesn't take the historic coherence of the area into consideration*

- *•superblock considered also as the part of the 'human' city system is right idea*

- *•how my idea can be implemented in other superblocks*

- *•the scheme of the intervention should be more critical and have less naive deduction – i.e why it can be no-successful?*

- *•identifying specific qualities of the 'right place' of the intervention*

- *•temporary and permanent character of possible changes in the public space*

- *•references to the existing similar installations''*

- *•incorporating the idea of the – 'Placemaking' -(the thinking behind Placemaking gained traction in the 1960s, when PPS mentors like Jane Jacobs and William H. Whyte introduced ground-breaking ideas about designing cities for people, not just cars and shopping centres. Their work focuses on the social and cultural importance of lively neighbourhoods and inviting public spaces: Jacobs encouraged everyday citizens to take ownership of streets through the now-famous idea of 'eyes on the street,' while Holly Whyte outlined key elements for creating vibrant social life in public spaces.)*

At the end of the seminar, students presented the proposals in a public session that took place in the School of Architecture. Two guest critiques were invited as representative of the community. In parallel, teachers from other schools of the OIKONET network reviewed the works in the on-line learning environment.

After the presentation, the posters with the student's proposals were exhibited in the School.

Figure 11.6. Exhibition of the final proposals at LA SALLE

In parallel to the work carried out at LA SALLE seminar, during the same period of activities FASTU included a task for their students which was integrated in the structure of the learning space.

LA: UNDERSTANDING URBAN SYSTEMS

- TK: Mapping the principles of liveable neighbourhoods. The purpose of this task is to identify some of the basic principles of liveable neighbourhoods which will be applied in the students´ designs of the new urban development area in western Petržalka in Bratislava. The research is based on the analyses of the area, inputs from experts and representatives of the municipality, as well as the own theoretical research on the topic of sustainable and liveable neighbourhoods.
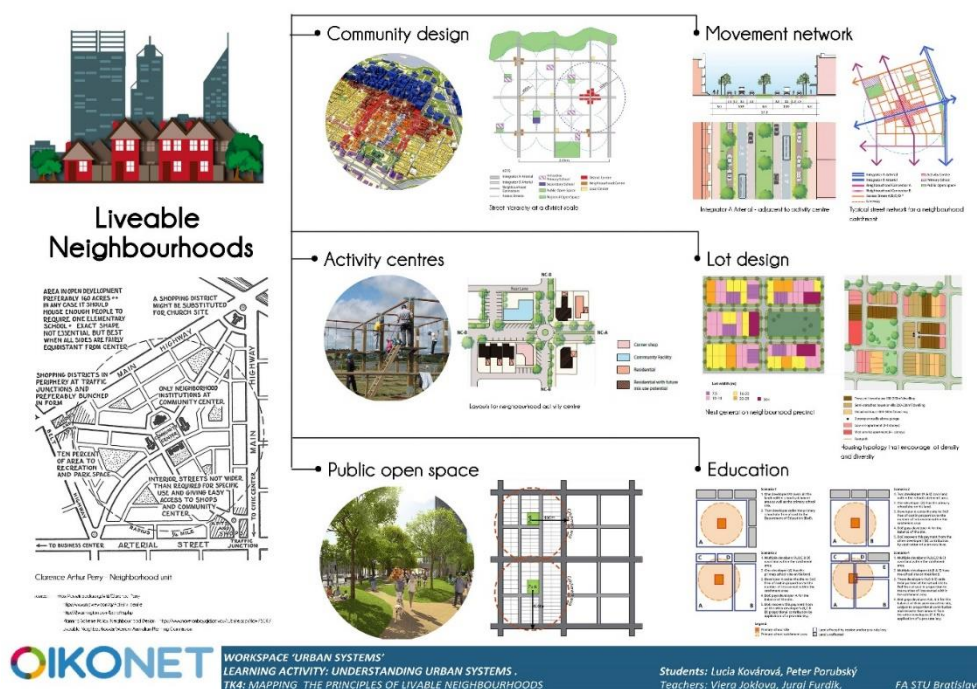
Figure 11.7. Task submission by students Lucia Kovárová, Peter Porubský, from FASTU

After the activities in the seminar at LA SALLE were completed, a group from the University of Thessaly continued working in the learning space during the spring semester of 2015/16. The basic structure of the Learning Activities (as described above) has been integrated into the curriculum of the third year compulsory course "Urban planning: Urban design II". Students in this course were introduced to the elements of urban design and planning (streets, urban blocks, public spaces, green spaces, land uses, social groups, transportation, etc.), and learned that these elements are forming networks and systems that co-exist, interact and transform each other. In the last part of the course, they designed a new development in an infill site in the city of Larisa applying the knowledge they had acquired; a development which is integrated in the existing urban system.

LA: UNDERSTANDING URBAN SYSTEMS

Two news tasks were added by UTH.

> **- TK: Understanding urban elements: The urban block**. Students have identified two patterns of urban blocks by comparing two parts of the same city using mainly Google Earth and Street View. Thus, the goal of the task was to understand the formal differences, the reasons which contributed to them (e.g. planning decisions, ownership structure, dwellers' interventions, etc.) and the social implications of the specific layout (e.g. internal or external oriented development, public and private space arrangements, etc.).
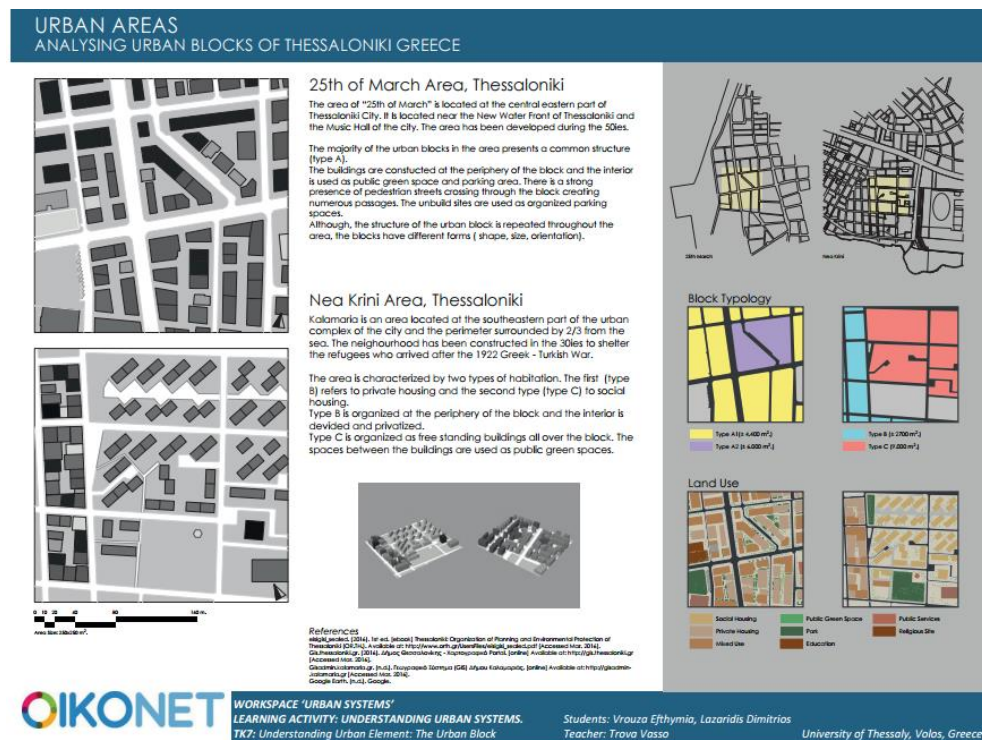
Figure 11.8. Task submission by students Vrouza Efthymia and Lazaridis Dimitrios, from UTH

- TK: Understanding urban elements: The street. Students had to identify two different patterns of urban streets networks by comparing two parts of the same city using mainly Google Earth and Street View. Students described the formal properties of the streets in order to understand the role of the street system in shaping the urban milieu and the possible consequences for the urban life.
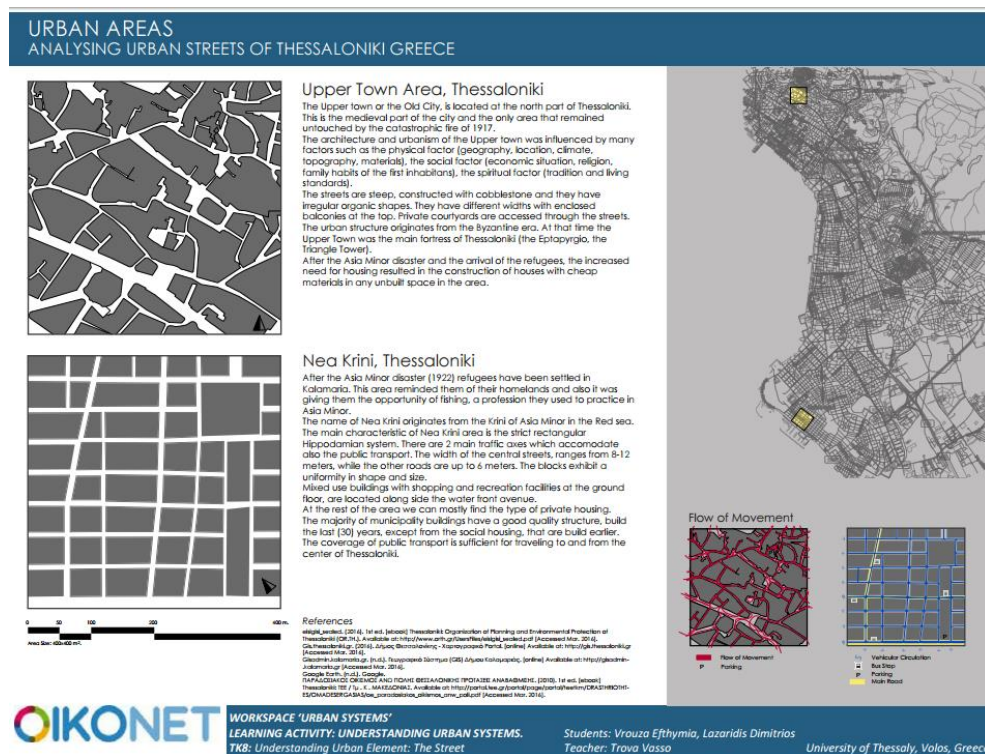
Figure 11.9. Task submission by students Vrouza Efthymia and Lazaridis Dimitrios, from UTH

LA: DEVISING AN URBAN SYSTEM

- TK: Creating a new urban area in Larisa. Students designed a new neighbourhood in Larisa in a brownfield location. The project had to conform to the principles of "green design". Students handled the project as a multi-layered structure where different systems (street network, urban blocks, green spaces networks, public spaces networks, etc.) are overlapping and interrelated.

Figure 11.10. Task submission by students Vrouza Efthymia and Lazaridis Dimitrios, from UTH

11.4 Blended-learning environment

The activities have been carried out in the classroom as well as in the on-line learning environments.

11.4.1 On-site activities

The elective seminar met once a week, for three hours, from October 2015 thru January 2016. This time was dedicated to introduce the theoretical basis of the topics, to make presentations of student works, to discuss the comments received through OIKODOMOS Workspaces, and to do the tasks.

11.4.2 On-line activities

OIKODOMOS Workspaces was used to structure the learning activities and to organize the

collaborations in between different partners. Both the comments and the shared Tasks were submitted on OIKODOMOS Workspaces.

11.5 Collaborative activities

At the School of Architecture La Salle, 8 students from the undergraduate program and 2 tutors, participated in the activities. Dr. Cynthia Echave from BCNecologia, and Dr. Jaan-Henrik Kain, from Chalmers University, gave lectures and commented the students results.

At the University of Thessaly, there were 21 students and 1 tutor working on the tasks of the learning space. Dr Leandro Madrazo and Angel Martin Cojo gave a Skype lecture presenting the methodology of the word done in the seminar at LA SALLE.

At the Faculty of Architecture, Slovak Technical University, 7 students and 2 teachers worked on the tasks of the learning space.

11.6 Outcomes

The outputs produced by students from the three participating schools have been the following:

- students from LA SALLE submitted 64 works in 5 tasks.

- students from UTH submitted 7 works in 3 tasks. (Students delivered 63 works in 3 tasks but only 7 could be translated from Greek into English to be uploaded onto the OIKONET platform)

- students from FASTU submitted 3 works in 1 task.

Besides, some learning resources facilitated to students can be useful for future editions of the learning space. They are available in the Resources area of the OIKODOMOS Workspaces.

11.7 Evaluation of results

We have created a new learning space that brings together research and pedagogy, schools of architecture and local planning agencies, citizens and students, in a joint exercise aimed at understanding the complexity inherent to contemporary urban developments. With this purpose, the learning design has been carried out with the collaboration of a partner from the subnetwork Housing Research, who has also participated in the learning delivering lectures and commenting the students' output. This has been a very valuable experience which deserves to be continued in future learning spaces

11.7.1 Evaluation of student feedback

Student feedback was collected via on-line questionnaires (see Deliverable 6.3 for a comprehensive report). The main findings can be summarized as follows:

- Students appreciated that from the beginning everything was organized in learning activities and tasks. This helped understanding how the various activates were connected and to see the whole picture of the seminar. However, as for most students it was the first experience with task-based learning, they needed to get used to it.

- The online environment facilitated the sharing of ideas among students. However, although the environment offers an accessible way to see the different works, it does not invite to relate much and creates a slightly formal atmosphere of collaboration. The students liked the idea of collaboration but thought that it could still be improved.

- In order to create a feeling of real international collaboration, they suggested working in international groups on the same tasks online.

11.8 Conclusions and further steps

After the experience gained with the design and implementation of the previous learning spaces, we have striven to simplify the structure of learning activities and tasks. This has proved to be an effective strategy since it has enabled other partners: 1. To easily grasp the sequence of activities and tasks 2. To easily map their courses to the learning structure, adding and adapting tasks if necessary. In this regard, the strategy to use asynchronously the same learning space, so that one group starts when the other have finished, has proved to be a valid one worth to continue being explored.

As in previous implementations of learning spaces, the main difficulty has been the alignment of the activities that are taking place in the same period of time. This requires an extra effort from teachers to agree on common timetable and to maintain a fluid and seamless communication during the development of the activities. Without this coordination effort, one group will not become aware of the work that other group is doing during the same semester.

12 THINKING DWELLING

by Leandro Madrazo & Adrià Sanchez Llorens, School of Architecture La Salle, Barcelona

12.1 Introduction

 "Thinking Dwelling" is a learning space designed by the School of Architecture La Salle, Ramon Llull University, coordinator of the OIKONET project. Its purpose is to bring together students and faculty from the OIKONET partner schools in a joint reflection about the forms of living in the contemporary world. Participants are encouraged to reflect on the forms of dwelling in our global societies and to develop a critical understanding which enables them to envision the role of the architect in the shaping of the spaces we inhabit.

There have been two editions of the learning space, the first one in the academic year 2015/16, and the second one (on-going) in 2016/17.

Figure 12.1. Announcement of the first edition of "Thinking Dwelling" at LA SALLE, September 2015

Figure 12.2. Announcement of the first edition of "Thinking Dwelling" at LA SALLE, September 2016

12.2 Topic

The reflections about contemporary forms of dwelling are framed around three topics:

- **Representing**

To provide examples of ways of living through different art forms. For example, the relationship between inhabitants and space expressed in a film scene, a painting, a photograph, a passage of book, a piece of music...

- **Experiencing**

To express the relationships with the spaces we live in, using any form of representation: a drawing, a video, a photograph, a text, a sound, in any combination.

- **Projecting**

To collect personal experiences about renowned houses, to comment on relevant examples of housing design.

12.3 Blended-learning environment

"Thinking Dwelling" encompasses on-line and on-site pedagogic activities following the philosophy of blended-learning. Students and faculty of all courses and levels from the OIKONET partner schools have been invited to participate in the activities of this learning space. Some of the on-line activities have been intertwined with other tasks carried out within specific courses at the participating schools, thus forging links between different programs and schools through the activities of "Thinking Dwelling".

A web-based environment has been specifically created for this learning space by the project coordinator: www.oikonet.org/thinking_dwelling. In the public home page, the objectives of the program are explained and a selection of the works submitted are displayed. Users need to log in to upload works and see the works from other users. Users can group the works uploaded by any other participant in groups, and add comments to other people's work. This way, it is possible to use the reflections as resources for other learning activities.
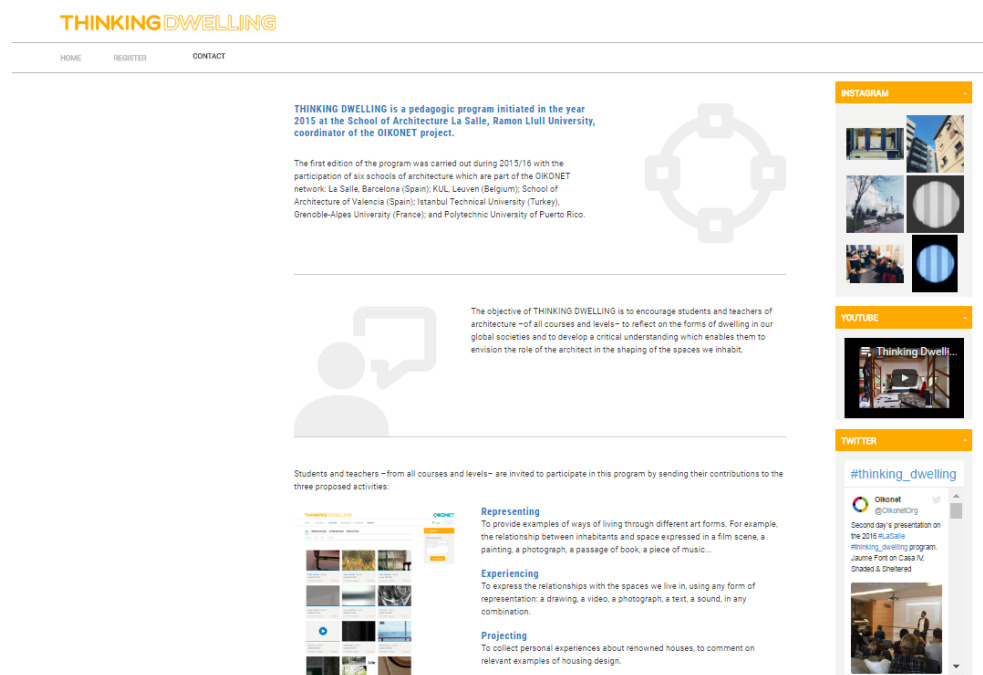
Figure 12.3. Public home page

Figure 12.4. Guidelines for users

Figure 12.5. Summary of all works submitted by the 6 participating OIKONET partners.

12.4 Collaborative activities

In the first edition of the learning space, in 2015/16, six partners participated in the activities, interlinking their courses with the Thinking Dwelling activities (Representing, Experiencing and Projecting). The following courses and schools participated:

- "**History of modern architecture**" / **School of Architecture La Salle**. Students will be given six short passages from musical compositions that evoke an interior architectural space. The students will choose one of the musical excerpts and submit an image (sketch, picture, photography, and photomontage) of the dwelling that the music evokes in them. Once the exercise is completed, the names of the six pieces of music and the authors will be revealed.
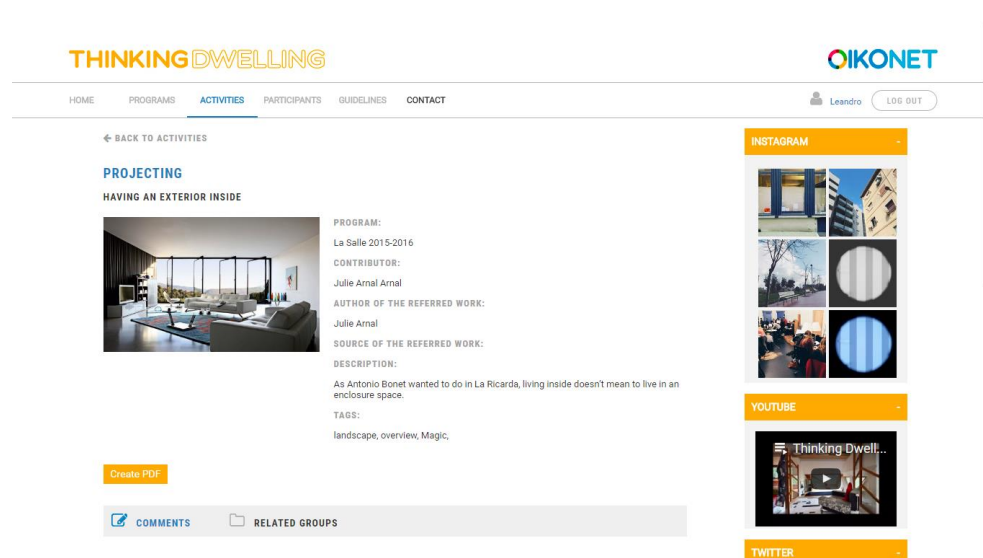
Figure 12.6. A submission for the activity "Projecting" by Julie Arnal, a student from LA SALLE.

- "**Introduction to theory of architecture**", **Polytechnic University of Puerto Rico - Faculty of Architecture.** A program of activities was carried out from the 12th April to 25th May, 2016. Students undertook a short research about the theme of "Habitat, Dwelling and Architecture". They proposed their own topic of interest around one of three activities proposed in THINKING DWELLING (Representing). They identified an issue and then conducted their own research on it.
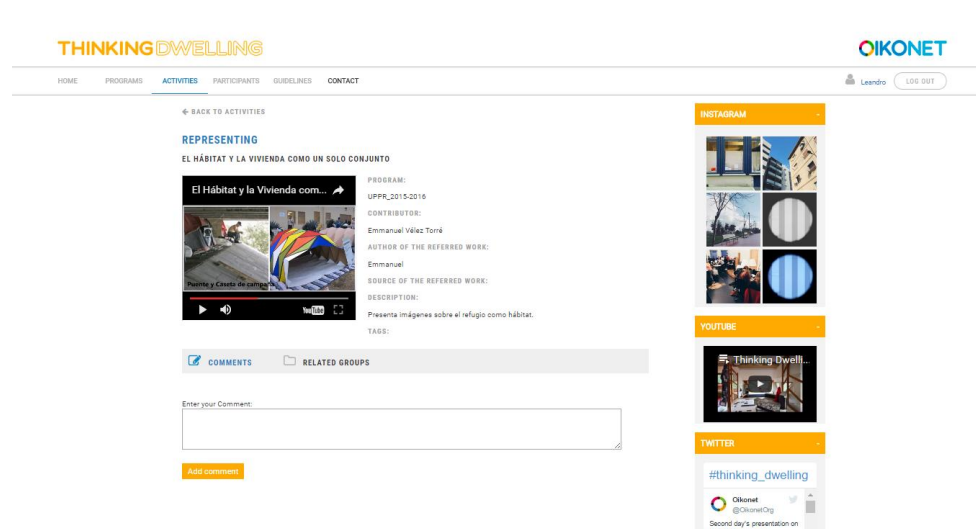
Figure 12.7. A submission for the activity "Representing" by Emmanuel Vélez, a student from UPPR.

- "Architectural Design Studio 2", School of Architecture of Valencia. A program of activities was carried out from 12th April to 26th April, 2016. The students contributed to three activities- Representing, Experiencing, Projecting- with examples of modern paintings, photographs and architecture related to the act of dwelling. During two weeks, students read four texts from Xavier Monteys which foster different points of view about the house : "Layout is too narrow as a term", "Wos hpnin?", "The city, the corner and the house"; and "What if the rooms of a dwelling are situated in a discontinuous building?".
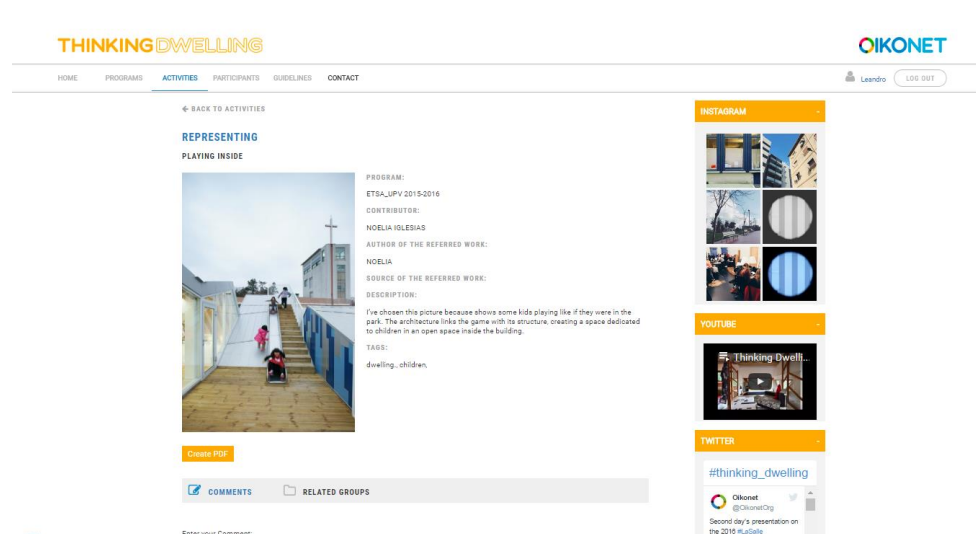
Figure 12.8. A submission for the activity "Representing" by Noelia Iglesias, a student from ETSA-UPV.

- "Architectural Design Studio VI", Istanbul Technical University, Faculty of Architecture. The work carried out in the design studio was integrated in the "Thinking Dwelling" program in two phases: 1. In the first phase students provided examples of the daily life based on the film "The Perfect Human" produced by Jørgen Leth in 1967. After watching the film, students created two images representing a perfect and non-perfect human in their living environment. 2. In a second phase, students provided examples of dwelling inspired in

the film "The Five Obstructions" directed by Lars von Trier in 2003. Students made a short movie describing the obstructions that they encounter in their neighbourhood. To carry out these tasks, students were given some readings that helped them to understand the relations and differences between being and living, building and dwelling, and space and place.
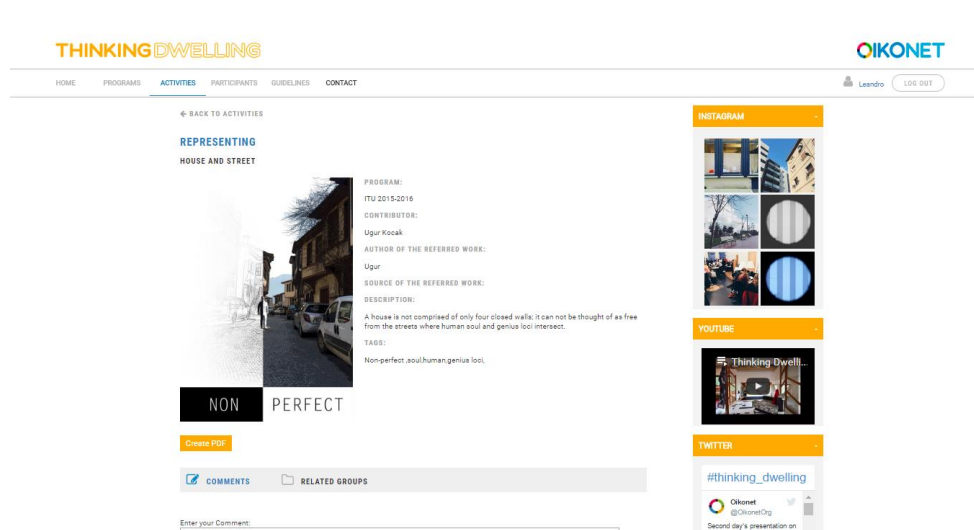
Figure 12.9. A submission for the activity "Representing" by Ugur Kocak, a student from ITU.

- "History of modern architecture", Université Grenoble Alpes, Institut d'urbanisme de Grenoble. Within the context of this course the "Thinking Dwelling" platform is used as a source of inspiration and reflection for urban planning students to familiarize with domestic architecture. Students contributed to the three activities – Representing, Experiencing, Projecting– with examples of modern architecture related to the act of dwelling.
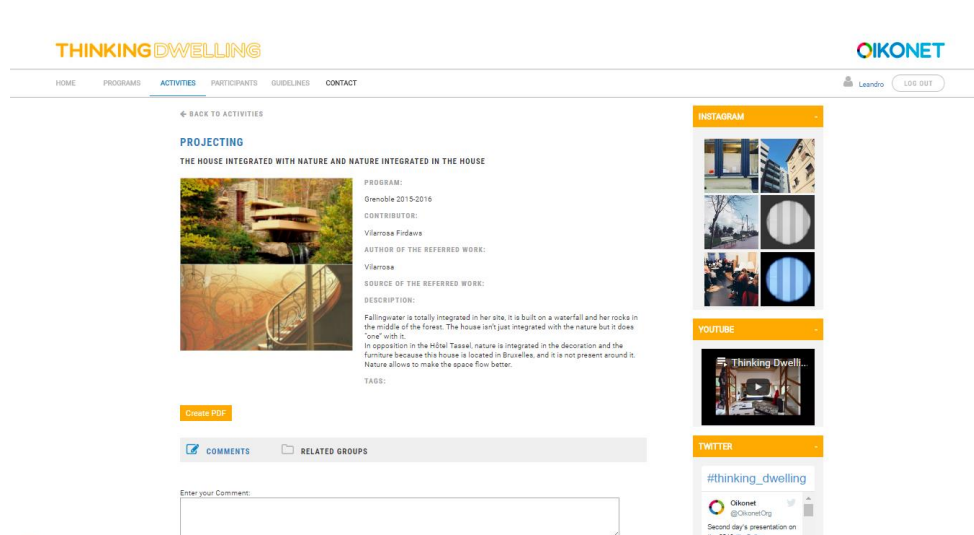
Figure 12.10. A submission for the activity "Projecting" by Vilarrosa Firdaws, a student from UGA.

- "SMALL is power", KU Leuven - Faculteit Architectuur. A program of activities connected was carried out from 26th September to 9th October 2015, 2015. The activities were done in conjunction with the learning space "SMALL is power". This learning space is dedicated to understanding the relationships between private and collective spaces. Students

read the poem "Elements of a house" written by Raimund Abraham in 1972 and illustrated fragments of the text with photographs explaining the relationship between both.
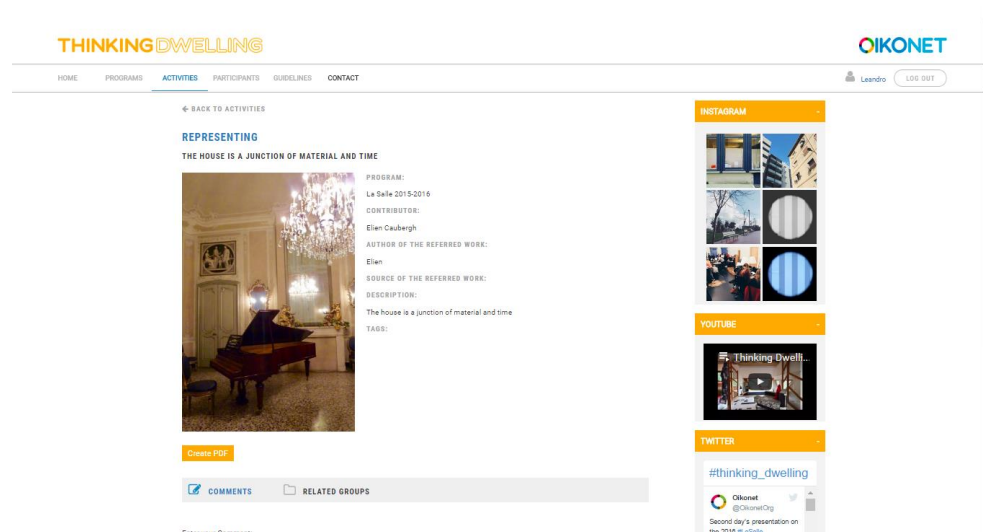
Figure 12.11. A submission for the activity "Representing" by Ellen Caubergh, a student from KUL.

12.5 Outcomes

The total number of participants (students and teachers) from the six institutions involved in the activities carried out in the first edition was 212, distributed in the following way: LA SALLE (100), ETSA-UPV (27), ITU (17), UPPR (32), Grenoble (16) and KUL (20). The second edition is on-going at the moment of writing this report.

The works submitted by partners in the two editions of the learning space are the following:

- 2015/16

LA SALLE (33), ETSA-UPV (67), ITU (23), UPPR (22), UGA (14), KUL (16)

- 2016/17 (ongoing)

LA SALLE (43)

Besides the work submitted by participants, there have been other outputs: two exhibitions, a publication of the works submitted in the first edition; recordings of the presentations of faculty members from LA SALLE in the two editions; and contributions to the social web (Twitter, Instagram).

- Exhibitions

In the academic year 2015/16, the contributions of the participants were displayed at the School of Architecture La Salle, from 20th thru 28th October 2015.

Figure 12.12. Exhibition of the contributions of participants in the first edition of the program at LA SALLE

In 2016/17, an exhibition space was built at LA SALLE to house the presentations and discussions and to display the participants' contributions. It was on display during the whole winter semester.

Figure 12.13. Activities in the exhibition space of the second edition at LA SALLE

– Publication

The outcomes of the first edition of "Thinking Dwelling" were compiled in a publication.
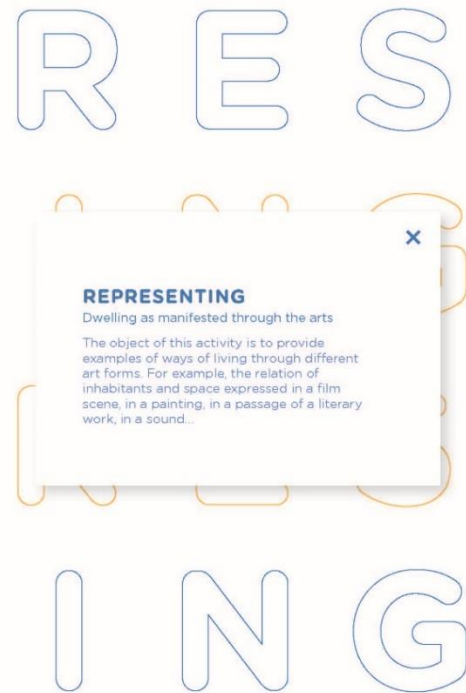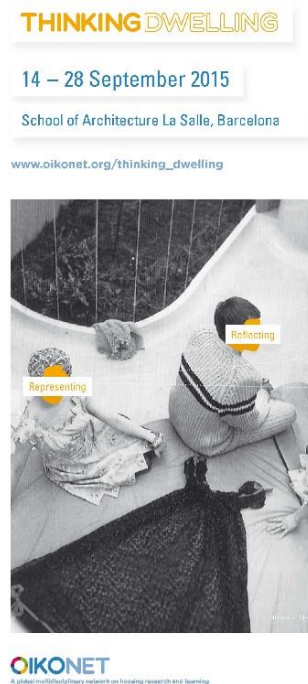
Figure 12.14. Cover and title pages
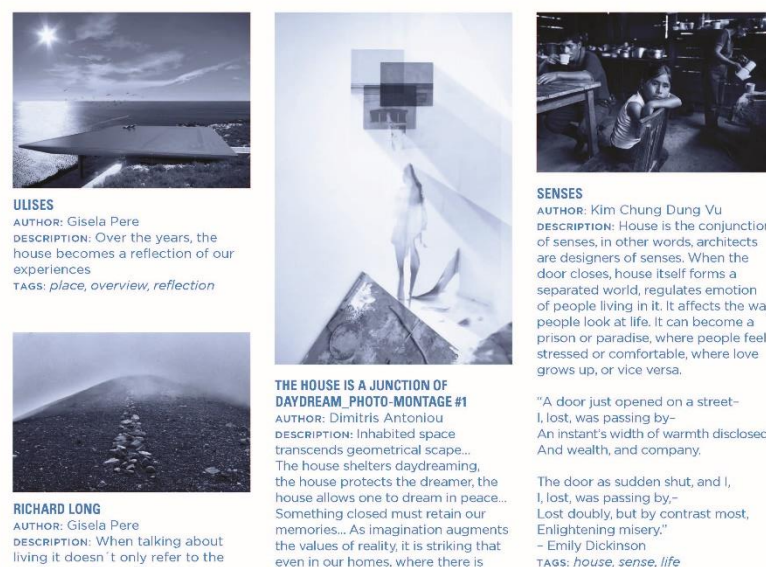
Figure 12.15. Contributions from participants in the publication

- Videos of the presentations

10 recordings of the presentations of the faculty members at LA SALLE, in the two editions of 2015/16 and 2016/17:

- o **Living in a symphonic score open to a thousand sounds: Walden 7 (1970-75).** Presentation by Helena Martin Nieva, School of Architecture La Salle. https://www.youtube.com/watch?v=5RhI8eosIFc

- o **Casa IV. Shaded & Sheltered.** Presentation by Jaime Font, Lecturer, School of Architecture La Salle, September 2016. https://www.youtube.com/watch?v=DVe23igx0dg

- o **Drawing, Dwelling & Thinking.** Presentation by Sebastian Harris, Lecturer, School of Architecture La Salle, September 2016.

  https://www.youtube.com/watch?v=SPQM1LNWNFk

- o **Rethinking the rooftop**. Presentation by Gerardo Wadel, School of Architecture La Salle, September 2016.

  https://www.youtube.com/watch?v=hww5BpsnvaE&list=PLBKrQRZ4WNfEGio6p-d69TxiJ8fL9-dq7&index=3

- o **Design is a way to condense time - the Hexenhaus case.** Presentation by Anna Bach, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=UrSAz8ZI-_w&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=1

- o **Dwelling on dwelling**. Presentation Carlos Albisu, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=78g1YfOE72k&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=2

- o **To dwell is also to celebrate new music and happening at La Ricarda, 1963**. Presentation by Helena Martin,, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=mfSVfRiEJ_Q&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=3

- o **Scale matters.** Presentation by Daniel Granados, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=SDsZfWBT-pg&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=4

- o **Diving into architecture**. Presentation by Pedro García, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=_p_AhOyeCTc&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=5

- o **Lost spaces vs. opportunity spaces**. Presentation by Pere Buil, School of Architecture La Salle, September 2015.

  https://www.youtube.com/watch?v=-VbympenfS8&list=PLBKrQRZ4WNfEpxQgYPZdHnzt0Ej6gp3KS&index=6
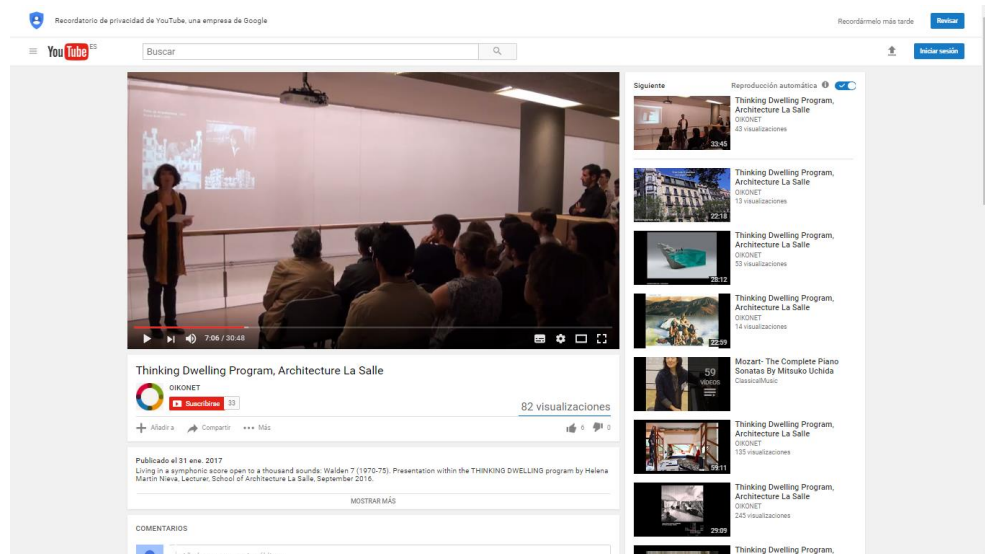
Figure 12.16. Video of a recorded presentation in YouTube

- Contributions to the social web

The Twitter channel #thinking_dwelling was created to disseminate the program activities.

Figure 12.17. Screenshot of the Twitter channel #thinking_dwelling
(https://twitter.com/hashtag/thinking_dwelling)

Figure 12.18. Announcement of the exhibition of the first edition through Twitter (https://twitter.com/hashtag/thinking_dwelling).

Also, images of the events have been distributed though the Instagram account of OIKONET.

12.6 Evaluation of results

An evaluation of the first edition has been carried out among participating teachers (see Deliverable 6.3 "Evaluation of learning activities"). The main findings are summarized next.

Up to a certain point, the respondents agreed that the program promoted a joint reflection about contemporary dwelling with students and teachers from other schools. It enabled students to see alternative approaches, and to express their ideas in a short and artistic way. For the majority of teachers, the program managed to create a collective repository of insights and ideas that can be reused during their courses. On the other hand, until now the program has been mainly used in a one-directional way (posting your own work). However, the program has a great potential to evolve. For example, by having a joint event in different schools with live connections, etc.

In general, teachers agreed that the purpose of the three activities (Representing, Experiencing, Projecting) was clearly described and that it was easy to explain students what to upload on the website. According to their teachers, most students benefitted from the insights and ideas previously uploaded by other students and allowed them to contribute themselves with meaningful ideas. Furthermore, the students learned to communicate their ideas within the constraints of an on-line learning environment even though some hesitated to share their ideas and products with the public.

For all teachers, registering to the platform and uploading materials was easy. However, some teachers (1/3) had difficulties in identifying the works of their students once uploaded.

12.7 Conclusions and further steps

The program has opened new opportunities to collaborate in a different manner, which is less intensive that in the other learning spaces which no less fruitful in terms of exchange of ideas, programs and methodologies. As always, the success of the initiative relies very much on the personal interest and motivation of the faculty members involved. The mapping of the courses at the respective schools to the structure of activities of Thinking Dwelling (Representing, Experiencing, Projecting) has worked quite well: each teacher has been able to define a task

that makes sense both for the course and for the Thinking Dwelling program. However, we do not have much evidence of the interactions among the teachers and students through the joint activities developed in this learning space. Even though seeing someone else's work might always be inspiring and be an object for reflection, there have been no activities designed to encourage these links. In this sense, we cannot properly speak of a "collaborative learning space" but rather of a space which fosters collaboration among institutions.

To advance in the construction of a truly collaborative learning space, the web-based environment has been enhanced for the second edition of the program. Two new functionalities have been added to facilitate using the submitted works as learning resources which can be used by other partners to design collaborative activities at their respective programs: 1. To comment a work and 2. To group works. Besides, the interfaces have been enhanced to facilitate the search of works by tag, user and institution. Whether these tools help to create links across individual programs depends on the learning design, that is, on the capacity of the individual teacher to create meaningful activities using the collaboratively created resources.

13 CONCLUSIONS

During three academic years, from 2013 to 2016, the partners participating in the Pedagogical Activities subnetwork have carried out an intensive collaboration which is reflected in the work reported in this document. During this period, the collaboration has undergone two phases: a first explorative phase, during the first half of the project, and a phase of consolidation and expansion in the second part.

In the early explorative phase, the collaborative work focused on identifying the available resources to build up the collaborations, that is to say, the persons, programs and courses involved. Once the resources were visualized, then the challenge was to find out spaces of collaboration which for a large group such as this necessarily conveyed to structure the group in smaller groups, organized according to personal and/or programmatic affinities.

At this first phase, designing and implementing the learning spaces in collaboration has contributed to forging links between the partners in the network, to exchanging knowledge about various matters related to housing studies, as well to sharing pedagogical methods and experiences. As a result of this collaborative work, it was possible to come up with new strategies and procedures –which had not been developed in the previous OIKODOMOS Virtual Campus projects– to improve the process of designing the learning and also the implementation of the planned activities. The template which has been developed in the project to describe, collaboratively, a learning plan before starting with the implementation of the learning activities constitutes an example of this (see Appendices). With regard to the implementation of the activities, a consensus was reached to complement the formal learning structure intrinsic to OIKODOMOS Workspaces with other tools which enable a more informal, personal communication between learners, such as those of the social web. In this regard, it is worth mentioning the use of Skype, Twitter and Facebook as complementary spaces of the work done in Workspaces, something which was not done in the previous OIKODOMOS project.

In the second phase of the project, the work concentrated on consolidating the results achieved in the previous phase and on exploring new forms of collaboration. In this regard, various trends can be identified:

1. Integrating courses in a joint learning structure. The five consecutive editions of the learning space "Introduction to Housing" is the most relevant example of the effort to integrate multiple courses –with different programs, learning format and schedules– in a common learning structure. Step-by-step, the initial learning structure was refined and simplified to facilitate the access to other schools.

2. Developing further the work done in previous learning spaces. Asynchronous collaboration has revealed as an effective strategy to re-use and enhanced the work done by other partners. This has been the case of the learning spaces "Housing Systems" and "Urban Systems", started by LA SALLE and then continued by DIT and UTH.

3. Exploring alternative pedagogic models. Some partners have moved away from the learning structure intrinsic in OIKODOMOS Workspaces to explore other spaces of collaboration and other pedagogic models. An example of this is that path followed by KUL, from the learning space "Threshold Matters" to the two editions of "Small is Power".

4. Opening up flexible and simple forms of collaboration. To overcome the difficulties on agreeing on a common learning plan and its consequent implementation as a joint learning structure, other forms of collaboration have been explored. This the case of the "Thinking Dwelling" program, which proposes a simple learning structure base on three activities defined

in such way that can be interpreted in various ways thus facilitating the mapping between them and the assignments in the courses at each institution.

Some other conclusions which can be drawn from the experience gathered in the course of designing, implementing and evaluating the learning spaces are the following:

With regard to the learning design process

- Agreeing on a template to create the learning plan of a learning space, before this is implemented, has represented a step forward with regard to the processes which have been used before the partners in previous projects.

- Coming up with a common learning structure helps to bring together the multiple approaches to housing adopted at the different schools. On the other hand, the structure should be flexible enough to be adapted to the specific conditions of each participating school

- Identifying the learning outcomes right at the start of the learning design process, continues being uneasy to most teachers in architecture schools. However, they should be a constituent part of the learning design process

- A remaining challenge is to involve researchers in the planning of the learning activities (as well as in the evaluation of the student works). The themes addressed in a learning space (e.g. habitat regeneration strategies) are research themes in themselves. Therefore, teachers could benefit from the knowledge that researchers can provide about the latest stand of the research on the topic, including relevant publications which can be used as references. The open approach adopted in the design of the learning spaces favours the interweaving of learning and research, teachers and researchers

- A blended-learning approach helps to overcome the division between on-site and on-line activities by creating new learning spaces. In this regard, the most effective mechanism to create a sense of place and a feeling of community is still through face-to-face meetings. Whenever possible, it is recommendable to meet face-to-face at the start of the learning process before starting the on-line collaboration. Likewise, at each school, teachers need to come up with their own strategies to bring to the classroom the outcomes of the shared activities performed on-line.

- Since there is no institutional support for collaborative learning spaces such as those reported in this document (e.g. credits, time for students and teachers recognized in their own institutions) the collaboration should represent the less time and effort for participants. In this regard, initiatives that imply a simplification of the joint learning structure are helpful.

- Involving other stakeholders outside academia –professionals, citizens, community representatives, researchers– in the design of a learning space helps to enhance the scope of the learning to other realms, situates the learning in the community and enriches the subject-matters and discussions with the contributions from other realms and actors. In this regard, the involvement of citizens and professionals in the learning spaces "Urban housing regeneration" and "Urban Systems", and the collaboration between teachers and researchers in "SMALL is Power" and "Urban Systems" have been positive experiences which are worth to be continued.

With regard to the implementation of the learning activities

- The teachers involved in a collaborative learning process must maintain a fluent and constant communication during the whole period of implementation. It is fundamental to agree first on the communication channels to use in order to keep the conversation alive during the whole process. These channels can be manifold: email, Twitter, Facebook group and also the bulletin board in the Workspaces environment. All of these channels, especially those of the social web,

need to be regularly fed with information. In this regard, to appoint a person to be in charge of providing information during the whole learning process can be helpful, communicating what is being done in a group in a way that is intelligible to other partners (as it was done, for example, in the latest implementation of "Threshold Matters").

- On-line communication can be complemented with on-site activities, for example, by inviting a faculty member from one school to attend a guest critic, as it has been the case of KUL and UCLan in "Small is Power", or to take advantage of other exchange visits to agree on a learning program, as in the case of the collaboration between LA SALLE and CHALMERS.

- It is necessary to keep track of the progress of the learning activities, summarizing at specific points during the learning process what has been achieved so far, in a way that it can be easily understandable to the learners involved in the activities, and also to other interested partners – inside and outside the OIKONET network. This can be achieved by publishing regular reports, describing the stages of the learning process, illustrated with works of the students. Such summaries are useful to get a quick overview of what is being done in a learning space, thus avoiding having to search within the Workspaces environment, or being confused by continuous posting in social web environments.

- Participating teachers need to come up with their own strategy to link the activities performed in the shared learning spaces with those carried out at their courses. The level of integration between both can differ, from full integration (as in the case of an elective course exclusively dedicated to interact with other partners, like in the courses in LA SALLE or in KUL) to punctual interactions with the tasks carried out in the learning space (e.g. commenting the work done by students in other schools, using the learning resources facilitated by other partners, attending a video lecture on a specific theme delivered by a third partner).

- The mapping between a joint learning structure and the programs of courses taking place at each institution can be facilitated if the joint structure is simplified and the tasks to be done are described in a way that can be interpreted in multiple forms. However, efforts should be made to avoid a joint learning space becoming a repository of works indiscriminately uploaded by participants from various institutions, an amalgam to which none can find any sense.

- The work done in a learning space –the learning structure of activities and tasks, the resources collected and the works done by students– is a valuable learning resource which can be exploited later by other partners. The difficulty for the teacher who wants to make use of those resources is to provide a frame in which they become intelligible and useful for his/her students.

- In light of the lack of a common understanding of the objectives of a learning space, or the impossibility to agree on a timetable, there is a risk that different schools work in parallel without interacting with each other. To avoid this, it is crucial to have a plan which includes links between the works done at each school with the shared activities.

- Students and teachers need to be aware of the limitations and requirements that come up while collaborating in an on-line learning environment. Yet, the idea that these environments are meant to "upload" an assignment is prevailing. Rather, they should understand that an on-line learning environment is a communication space, with its own rules and requirements. This means that it is necessary to make a proper use of graphical and textual languages within this communication space, to be sure that the ideas that are expressed through them will reach other students at teachers, at other places and institutions.

- The role of a learning space coordinator is fundamental for the success of the shared learning activities. The coordinator is responsible for maintaining the consistency of the common work, for keeping all participants informed throughout the whole process, and for highlighting the

value of what is being achieved.

- The strategy to continue with the work done by other partners within the same learning space has proved to be a valid one. This means that the teachers that decide to continue have to first understand the previous work (learning activities and tasks, outputs produced by students) in order to position the new activities with regard to the precedent work. It is also recommendable that they contact the teachers involved in the previous works to learn from their experience.

With regard to evaluation of the activities:

- The evaluation questionnaires need to be jointly produced (adapted on the basis of a template) with the collaboration of the designers of each learning space. In fact, the evaluation questionnaire should be a constituent part of the learning plan.

- The vocabulary of the evaluation questionnaires needs to reflect the actual learning experience. One of the difficulties in this regard is to name what is being done in an open-ended learning space, of undefined limits –conceptual, physical– as the ones generated through the collaboration in the learning space.

- It is fundamental to agree on the learning outcomes that students are expected to achieve in the collaborative learning activities already in the learning design phase. The joint evaluation of the students' works by teachers form different institutions can only be done after agreeing on a common rubric.

APPENDIX A: LEARNING PLANS

This section includes examples of the application of the template jointly created by partners to facilitate the collaborative design of a learning space.

13.1 Introduction to Housing

1. Theme

Introduction to housing

2. Description

The structure and contents of the learning space "Introduction to housing" draws on the curriculum of the first year design studio of the School of Architecture of Valencia, the housing design studio at the University of Cyprus.

The house is undoubtedly one of the most important vehicles of exploring the social and experiential dimensions of architecture. An understanding of the ways in which the house -as a spatial form- relates the social, cultural, and individual dimensions with the increasingly divided, complex and differentiated experiences of contemporary life, is of fundamental importance for architecture educators across the globe. In this context, the pedagogic purpose of the learning space is to address these issues through the collaborative design and implementation of sequences of learning activities that introduce students to the basic principles of designing (and understanding) what a house might represent in our contemporary culture (or cultures).

The structure of the learning space enables architecture educators from the two participating institutions to design a joint learning structure made up of collaborative Learning Activities and Learning Tasks. Learning Activities and Learning Tasks are collaboratively designed in alignment with the common pedagogic goals which are reflected in the learning outcomes set by the participating institutions. Tutors from the two institutions aim at collaboratively designed learning activities and tasks describing at the same time the learning outcomes to be used to jointly assess students' work. The Learning Activities and Learning Tasks of the learning space "Introduction to Housing" are described in detail in the following section.

The proposed Learning Activities address theoretical principles, design process, and representation techniques (verbally, textual and graphic-digital and analogue). Students carrying out the activities are expected to communicate their ideas (concepts as wells as designs) in an effective manner, while demonstrating team working skills and the ability to make a critical assessment of their own work and of the work of others.

3. Course level(s)

ETSA-UPV (P2): The activities of this learning space suit to 1st and 2nd year architecture students enrolled in the design studios, seminars and elective courses.

UCY (P15): During the fall semester 2014, UCY will participate with 4th year students who will attend a course about residential architecture. During the spring semester UCY will participate with 2nd year students who will attend a housing design studio.

4. Coordinator

Carla Sentieri, School of Architecture of Valencia, Spain (P2-ETSA-UPV)

5. Participating partners

- Nadia Charalambous, Department of Architecture, University of Cyprus (P15-UCY)

- Tomas Ooms, Faculty of Architecture, KU Leuven, Belgium (P4-KUL)

6. Learning objectives

- General aim of the learning space

Through a series of learning activities, students will be able to understand the differences between a house and a home. Students will demonstrate that they are able to make appropriate use of different representation techniques (verbal, textual and graphical, digital and analogue) in order to communicate ideas (concepts and design proposals) in an effective manner. Also, they should be able to demonstrate team working skills.

- Specific learning outcomes

- The student should be able to recognize the elements and the dimension of a space

- The student should be able to demonstrate coherence and continuity in the development of the design process

- The student should be able to analyse their own work and that of others by reference to established models of good practice and to the appropriate standards

- The student should be able to illustrate the importance of spatial imagination and presentation (e.g. expressed by sketches, models)

- The student should be able to describe the social determinants of housing design (e.g. dispositions, typology, national policy and standards)

- The student should be able to demonstrate knowledge of relevant theoretical background

7. Partners contribution

ETSA-UPV (P-2)

- Specific expertise. Providing specific expertise from previous courses on housing

- Teaching and learning resources (e.g. On-line or other formats). Facilitating access to teaching and learning resources (e.g. on-line or other formats): studio blog with pdf of examples of houses on the workspace

- Assessment activities and feedback. Evaluating and commenting the students' work from other institutions

- Past experiences. Experiences gained with the previous edition of the learning space "Introduction to Housing".

UCY (P-15)

- Specific expertise. The tutors participating in this workspace have been involved in the teaching of housing design studio for the past 10 years. They have also conducted research on relevant housing issues.

- Teaching and learning resources (e.g. On-line or other formats). The housing design studio blog as well as the postgraduate course blog developed through the past years at UCY will serve as a learning resource during the whole semester. The blogs include theoretical texts, design references, precedents analysis and relevant design proposals. We will also use Workspaces to carry out the tasks of the studio.

- Assessment activities and feedback. These will focus on practical tasks: on the analysis of design precedents and contexts and the development of new proposals. Feedback will be given from both tutors and peer student evaluation.

- Past experiences. Courses taught at UCY where we have been leading the housing design studio for the past 10 years.

8. Learning Activities

"Introduction to housing" will be implemented in the following courses: the ETSA-UPV second year Design Studio and the UCY fourth year course and second year design studio. KUL will participate with the collaboration of teachers.

These are the learning activities and the tasks for the first and the second semester 2014-15.

LA53 RECOGNIZING SPACE

Description
This learning activity focuses on the analysis of the interior spaces of a house: rooms and space-defining elements, furniture, pieces and other objects inside the rooms, dealing with the house as a home and work with the inside space to recognize its dimensions and particularities.

Keywords
 Space, size, home

Learning outcomes
-The student should be able to make appropriate use of different representation techniques (verbally, textual and graphic-digital and analogue) in order to communicate the ideas (concepts and design proposals) in an effective manner.
 -The student should be able to demonstrate team working skills through their contribution to the project.
 -The student should be able to recognize the elements and the dimension of a space
 -The student should be able to establish the graphic criteria for the representation of the project on paper
 -The student should be able to analyse their own work and that of others by reference to established models of good practice and the appropriate standards
 -The student should be able to illustrate the importance of spatial imagination and presentation (e.g. expressed by sketches, models)
 -The student should be able to describe the social determinants of a housing design (e.g. dispositions, typology, national policy and standards)

The following tasks are included in the learning activity "Recognizing space": Tasks (TK1, TK2, TK3, TK4, TK8, TK10)

TK1 What is a house?
The goal of this task is to distinguish the concepts of house and home. Students are expected to address issues such as: what makes you feel good at home? These reflections are summarized in an A3 document combining different materials and techniques (texts, drawings, photographs).

TK8 Collective housing
Examples of collective housing projects are presented and discussed in the classroom. Afterwards, the students will make their own reflections about collective housing and present them in an A3 document.

LA54 DERIVING IDEAS FROM TEXTS

Description
Argumentation is very important for architects; it is the way we explain our ideas to people who are not familiar with drawings. Also, the interpretation of a text is never unique. The purpose of this activity is to explore the transformation of the ideas described in a text- or, more precisely, the interpretation of those ideas- into drawings- that will become inhabited spaces.

Keywords
Idea, interpretation, home

Learning outcomes
 -The student should be able to integrate and synthesise relevant information into a new context and solution, based on a clear concept
 -The student should be able to illustrate the importance of spatial imagination and presentation (e.g. expressed by sketches, models)
 -The student should be able to criticize his/her own work and that of others by reference to established models of good practice and the appropriate standards
 -The student should be able to develop a professional working basis of processes, organisation and communication skills appropriate to their professional practice (e.g. design and construction)
 -The student should be able to demonstrate the ability to search, adapt and apply information to the problem in hand
 -The student should be able to make appropriate use of different representation techniques (verbally, textual and graphic-digital and analogue) in order to communicate ideas (concepts and design proposals) in an effective manner.
 -The student should be able to demonstrate team working skills through personal contribution to a joint presentation

<u>**LA55 PRECEDENT ANALYSIS**</u>

Description
The purpose of this activity is to learn from precedents, to understand the factors that influence residential architecture, to identify solutions provided from previous projects and to transform them into new ones.

Keywords
House, analysis, courtyard house

Learning Outcomes
-The student should be able to analyse the multiple variables that influence existing housing designs
 -The student should be able to define the issues that affect the actual design of residential architecture (social changes, globalisation, materials, local context...)
 -The student should be able to make appropriate use of different representation techniques (verbally, texturally and graphic-digital and analogue) in order to communicate their ideas (concepts and design proposals) in an effective manner.
-The student should be able to recognize the functional, spatial and structural organization of a house.
- The student should be able to demonstrate an understanding of boundaries and scales (within the house and between the house and the neighbourhood and urban space) in relation to public-private interfaces

The following tasks are included in the learning activity "Precedent Analysis".

TK11 Analysis of domestic architecture
Analysis of international examples of domestic architecture (context, users, social, economic, environmental variables).

<u>**LA58 IDENTIFYING USERS' NEEDS**</u>

Description
Houses are a complex expressions of the social and individual worlds of their occupants. Social structures and patterns of behaviour seem to be closely intertwined with the domestic spaces. Students are encouraged to understand that the design of a "home" needs to address the practicalities of everyday living while responding at the same time to the owner's idiosyncrasy, personality and dreams. Therefore, it is important to be able to analyse and understand the needs of people.

Keywords
People's needs, analysis, home

Learning outcomes
- The student should be able to analyse potential user profiles demonstrating an understanding of the relationship between social and spatial patterns
 -The student should be able to make appropriate use of different representation techniques (verbal, textual and graphical, digital and analogue) in order to communicate ideas (concepts and design proposals) in an effective manner.

The following tasks are included in the learning activity "Identifying users' needs".

TK12 Analysis of potential domestic users
Students are randomly given existing user types and are asked to describe their daily activities, hobbies, personalities, and needs**.**

LA59 CONTEXT ANALYSIS

Description
Homes often reflect differences between ethnic, cultural and social categories, including gender divisions between men and women or differences between adults and children. Also, homes reflect differences in environmental conditions (climate, light, air, topography). These differences vary in different cultures and different geographic areas and may be observed in the way domestic spaces are configured. Through this activity, students are expected to understand, that domestic space is site/context specific.

Keywords
Context analysis, domestic space

Learning outcomes
- The student should be able to apply the principles of urban analysis
 -The student should be able to demonstrate the ability to search, adapt and apply information to the problem in hand
 -The student should be able to makes appropriate use of different representation techniques (verbally, textual and graphic-digital and analogue) in order to communicate ideas (concepts and design proposals) in an effective manner
 -The student should be able to develop awareness for various processes shaping residential architecture.
 - The student should be able to develop an understanding of the multiple and complex variables in relation to the context that influences existing and new proposals
- The student should be able to demonstrate understanding of the boundaries and scales (within the house and between the house and the neighbourhood and urban space) in relation to public-private interfaces

TK13 Visual mapping of context
Students are asked to respond to specific sites - contexts given by their tutors employing visual ethnography methods- They are asked to represent context specific characteristics (cultural, social, and environmental) through both digital and printed photo essays.

LA60 AT HOME. NEW DESIGNING PROPOSALS

Description
Taking into consideration all the work done through the preceding tasks, students are asked to design a "home" in a specific context that addresses local conditions and culture, the practicalities of everyday living and the user profiles, personality and dreams. Understanding the relationships between the spatial structure of the domestic space and the social life of the inhabitants is one of the central challenges of this learning activity. The purpose is to explore the ways in which a home relates to social, cultural, and individual requirements, in the context of an increasingly divided, complex and differentiated experiences of contemporary life.

Keywords
House, design, domestic space

Learning outcomes
- The student should be able to apply compositional skills on the level of a basic dwelling; expression of strategic development pre-scenarios of the analysed site
 -The student should be able to make a complex synthesis of cross-disciplinary approaches to the project.
 -The student should be able to integrate and synthesise relevant information into a new context and solution, based on a clear concept
 -The student should be able to discuss and present development scenarios for a given site.
 -The student should be able to demonstrate the ability to search, adapt and apply information to the problem in hand
 -The student should be able to make appropriate use of different representation techniques (verbally, textual and graphic-digital and analogue) in order to communicate ideas (concepts and design proposals) in an effective manner.
 -The student should be able to create designs (architectural, urban design, planning) that satisfy aesthetic, cultural, social and technical requirements.

TK14 Initial design proposals
Students are asked to develop initial design proposals for shared housing.

TK17 Collective housing project
Students are asked to develop new design proposals of collective housing in their chosen context and user profile.

9. Sequence of tasks

LA53	TK1			
LA54				
LA55		TK11		
LA58		TK12		
LA59		TK13	TK14	
LA60		TK16		TK17

Participation during first semester 2014-15

	TK1
UCY	01/10 20/10
ETSA-UPV	01/10 20/10
KUL	comments
DIT	comments

Participation during second semester 2014-15

	TK11	TK12	TK13	TK14	TK16	TK17
ETSA-UPV	March 15 comments	March 15 comments	March 15 comments	May 15 comments	April 15 comments	May 15 comments
UCY	March 15 comments	March 15 comments	March 15 comments	May 15 comments	April 15 comments	May 15 comments
KUL	comments	comments	comments	comments	comments	comments

Tomas Ooms – KUL (P4) will participate with comments to the work.
ETSA-UPV and UCY´s students and teachers will make comments about works uploaded by the other school, for example:

- Is there anything new for you in this presentation? What and why?
- Is there anything else that you can consider important? What and why?
- An evaluation of graphic presentation (the same rubric can be used by different schools)

10. Define ways of collaboration / collaboration levels:

(e.g. Cross-Institutional, Trans-Institutional, Link to other WPs)

	CROSS-INSTITUTIONAL	TRANS-INSTITUTIONAL	LINKS TO OTHER WPS
ETSA-UPV	X	X	
UCY	X	X	X with WP2

11. In addition to the OIKODOMOS Virtual Campus tools (WS, Case Repository) what other collaboration tools / environments are you using? What for?

Tools used by all participants (e.g. Facebook group, Dropbox, Google+)

	Facebook	Dropbox	Google+	Poliformat	Blog
ETSA-UPV		X		X	
UCY		X	X		X

At UCY; everything related to the studio course is uploaded by both, tutors and students on a blog: Athome201.net. Dropbox is mostly used to upload reference material and Reading. Google is mainly used for coordination (schedules, presentation dates etc.).

12. What are your expectations regarding the impact / influence of participating in this collaborative learning space?

ETSA-UPV (P-2)

For you as a teacher?
- To improve my pedagogic methodology
- To reflect about the learning and teaching process
- To improve my English

For your students?
- To know what is happening in other schools
- To improve their knowledge of English
- To have the opportunity to comment on other student´s work

For your course?
- To create new tasks and assignments
- To comment the work of other students in the on-line environment

For your institution?
- To establish new relations between schools
- To open up possibilities for exchange of students and teachers

UCY (P-15)

For you as a teacher?
- To incorporate blended learning in my teaching
- To get feedback from colleagues in different academic environments
- To get familiar with different and diverse teaching methods and learning resources

For your students?
- To be exposed to different cultural and academic contexts
- To be able to experience different methods of learning through the virtual campus
- To have the opportunity to comment on other student work but also receive feedback from both peers and tutors

For your course?
- To enrich ourselves in terms of teaching methodology and in terms of references and learning resources
- To benefit from constructive criticism from both students and colleagues abroad

For your institution?
- To enhance the possibilities for international networking and collaboration
- To increase students and staff exchanges

AF_BELGRADE (P-26)

For you as a teacher?
- To extend the level of blended learning already applied in previous courses
- To compare different e-learning platforms
- To get familiar with different and diverse teaching methods and learning resources

For your students?
- To be exposed to different cultural and academic contexts
- To enrich their learning experience being exposed to an international learning context
- To have the responsibility of making a comment on other students' results within common or similar learning tasks

For your course?
- To enrich ourselves in terms of references and learning resources
- To contribute to the ongoing studio activities (since it is not part of the studio teaching)
- To benefit from constructive criticism from colleagues abroad

For your institution?
- To increase its international visibility
- To open towards the newest trends in teaching architecture

13. Please check the project goals to which your learning space will contribute to:

Promoting **cooperation between research, education and society**, by bringing together stakeholders from different areas to formulate and discuss contemporary problems regarding housing at a European and global scale.	x
Providing students, teachers, researchers and other stakeholders with the **competences** necessary to work in a readily accessible international environment	x
Encouraging the **active participation** of these stakeholders in the creation of innovative learning spaces which overcome disciplinary and institutional boundaries	
Facilitating **cooperation** between different academic programs which include housing (in its different dimensions) as subject matter.	x
Fostering **physical and virtual mobility** across partner institutions, by means of workshops, seminars, conferences and shared learning activities in blended learning scenarios dedicated to study contemporary housing issues.	
Contributing to the **internationalisation of the European cooperation**, incorporating third countries to the network. This will facilitate the exchange and mobility at the international level, preparing the ground for further cooperation among network partners in future programs (Erasmus Mundus).	x
Promoting **new forms of international cooperation**, through the design and implementation of shared learning activities carried out following a blended learning approach with the digital environments of the OIKODOMOS virtual campus.	x
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	x
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	
Reinforcing the **societal roles of academic institutions** in a culturally and linguistically diverse Europe, by embedding the learning activities in those social milieus in which solutions for housing problems are needed (integration, immigration) thus activating knowledge through interaction with society.	
Enhancing **interdisciplinarity and transdisciplinarity**, by creating new learning spaces which bring together different disciplines into the solution of housing problems.	x
Contributing to the **development of technology enhanced learning**, embedding ICT in the learning processes and learning structures.	x

13.2 Habitat Regeneration Strategies

1. Theme

Habitat Regeneration Strategies

2. Description

The purpose of the learning space "Habitat Regeneration Strategies" is to examine some current European and world experiences in regeneration of cities; with a particular focus on issues of liveability, housing and resilience.

Considering urban habitat regeneration integrative, urban design provides a space for developing the so called "glocal" place, as an urban pattern that integrates global and local environmental issues, standards, cultures, and ways of building. Many towns have wasted, unused or under-used land, brownfields. Urban regeneration strategies give them the opportunity for redeveloping such areas and for creating much better liveable environments. Regeneration represents such multi-sectorial interventions to city brownfields, which can result in environmental, social and economic improvements of an area. According to Eurocities "urban regeneration" is at the core of city planning. Urban regeneration can be defined as the integrated local redevelopment of deprived areas (neighbourhood, city, metropolitan area). It covers many aspects of city life: physical, social, economic and environmental. Approaches depend on a city's history, and therefore policies must be integrated and area-based.

Urban regeneration involves the renewal of urban areas and settlements. Regeneration strategies are from many points of view specific. They should:

•   **Integrate multi-sectorial and all level of government investigation and coordination.** They should consider the demographic changes, political, economic and structural issues, environmental and social issues, good design, etc. According to Chris Brown, "Urban regeneration is concerted social, economic and physical action to help people in neighbourhoods experiencing multiple deprivation reverse decline and create sustainable communities. It isn't property development by another name. Property development happens through market forces. Physical urban regeneration requires public sector financial support which is only given to benefit deprived communities."[3]

•   **Create holistic visions and good designs, which should be in the core of the regeneration process.** According Jon Ladd (former chief exec. BURA, British Urban Regeneration Assoc.), "Urban regeneration is a comprehensive and integrated vision and action which leads to the resolution of urban problems and which seeks to bring about a lasting improvement in the economic, physical, social and environmental condition of an area."[4]

•   **Engage people, stakeholders in participatory processes.** According to John Ireland, housing regeneration means "providing bespoke and creative solutions to deliver sustainable new communities. This is achieved via consultation with all stakeholders to clearly understand every issue, and staying connected to the scheme throughout the entire process and beyond, culminating in an aspirational new environment that works on both the economic level and for the community as a whole".[5] This position reflects Castells project identity that is needed for tackling with processes of globalization within creative clusters of intellectuals, entrepreneurs,

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[3] http://www.building.co.uk/10-ways-to-define-regeneration/3062794.article

[4] http://www.building.co.uk/10-ways-to-define-regeneration/3062794.article

[5] http://www.building.co.uk/10-ways-to-define-regeneration/3062794.article

decision makers, students, etc. In that manner, art and creativity become integrative factors for conflicts of values, interests, different viewpoints. This process leads towards 'drawing' a common future image. Integrative urban design uses Habermas' communicative action to bound instrumental, collaborative, strategic, interdisciplinary, technical and artistic dimension in an 'open play' of imagining a common future place.

• **Engage public sector leadership.** Physical urban regeneration requires from public sector financial support. Regeneration of waterfronts is one of the main issues concerning housing. Therefore, the learning activities will focus on urban habitat regeneration emphasising housing and participatory dimension

3. Course level(s)

AF_BELGRADE – 3rd year students; FASTU – 4th year Bachelor, 4th year students; VSUACE, 2nd year students; UGA – 2nd year students .

4. Coordinator

Tatjana Mrdjenovic, Mirjana Devetakovic, University of Belgrade

5. Participating partners

- Viera Joklova, Faculty of Architecture Slovak University of Technology Bratislava (P3-FASTU)

- Mirjana Devetakovic, Tatjana Mrdjenovic, University of Belgrade, Faculty of Architecture (P26-AF BELGRADE)

- Elina Krasilnikova, Volgograd State University of Architecture and Civil Engineering (P31-VSUACE)

- Adriana Diaconu, University Pierre Mendès-France of Grenoble (P18-UGA)

- Gregor Herda, UN Habitat (P34-HSUB)

6. Learning objectives

The course is aimed at developing knowledge and skills among participants (Public, Civil, Private stakeholders on various levels of governance) and partners on:
- Participatory process in urban habitats regeneration considering sustainability principles
- Role of integrative urban design in the process
- Methods and techniques that can be used
- The nature and options of facilitating, moderating, guiding the process; sustainable urban habitat regeneration

The methodology is based on UN-Habitat approach to local community development which fosters sustainable, integrative principles among stakeholders, developmental sectors, institutions and levels of governance. Specifically, the methodology used in the activities is context based (e.g. tailor made) participatory process, specific to local issues. This will be implemented as an iterative and cyclical process of learning that is growing in each phase, widening the level of participation among stakeholders and partners: from reflecting towards collaboration.

In sum, the pedagogic objectives are the following:

- Students of architecture will learn how to participate in creation of regeneration strategies
- Students of geography will examine different urban morphologies within the regeneration processes of riverbanks.
- All students will learn how to identify strategies behind observed regeneration examples, with particular interest in habitat issues
- All students will learn what habitat means and how their disciplines are related to its study.

7. Partners contribution

AF_BELGRADE (P-26)

- Managing OIKODOMOS Workspaces
- Integrative urban design
- Participatory urban design
- Post-disaster regeneration strategies
- Flood adaptation measures

FASTU (P-3)

- Participation in the learning space
- Sustainable and eco-friendly design, Integrative urban design, Waterfront rehabilitation strategies
- Teaching and learning resources, principles on sustainable rehabilitation (presentation), Bratislava – Petržalka housing and urban fabric development (presentation), tasks description
- Assessment activities, on-line presentations via videoconferencing, commenting partner students
- Active cooperation with partners on the LA and Task definition, and creation, communication with municipality, social activists and research partners in order to enhance the learning portfolio and collaborative activities.

VSUACE (P-31)

- Participation in the learning space
- Lecture on-line, video conference, articles, monograph, publication of the results on the Internet-resource (http://green-city.su/) and in the magazine (http://proektnv.ru/)
- Post-industrial and depressive territories regeneration strategies
- Landscape urbanism, regeneration of post-industrial and waterfront territories

8. Learning Activities

The learning process has been structured it three main learning activities and one general introductory activity.

LA69 – THE WORKSPACE INTRO
This learning activity is aimed at familiarizing the participants with the prepared Workspace. It contains two tasks.

TK4 Welcome introduce yourself requires student individual introduction illustrated with recent designs or other referent work.

TK5 Group introduction offers a possibility for a group introduction in the case that the learning within the workspace is going to be carried out only in groups.

LA70 – URBAN HABITAT REGENERATION AND INTEGRATIVE URBAN DESIGN IN SUSTAINABLE DEVELOPMENT
This learning activity introduces the main issues of sustainable development, habitat and integrative urban design. It is explorative and it is focused on successful examples of habitat regeneration worldwide.
It consists of several tasks TK6, TK7, TK8 (and TK18 added in second semester of the Workspace use).
In TK6, Exploring the Case of Ciutat Vella, Barcelona, groups of students are required to explore the case of habitat regeneration of Ciutat Vella, Barcelona, as one of the most successful habitat regeneration examples in Europe.

TK7 What the habitat is? What UN Habitat does? is focused on habitat in general and activities of UN Habitat. It is oriented toward the UN Habitat Urban Lectures, available on-line at: http://unhabitat.org/urban-knowledge/urban-lectures/.

TK8 Exploring the examples of urban regeneration strategies. In this task students are required to find successful examples of habitat regeneration worldwide and to recognize strategies behind.

LA71 – CREATING HABITAT REGENERATION STRATEGIES
In this learning activity the groups of students from different institutions focus on assigned cases, local or international, for which they are going to participate in creation of habitat regeneration strategy.

TK9 Habitat analyses. The task is aimed at analysis of the case of the habitat selected for intervention.

TK10 Urban morphology and regeneration of riverbanks- A task created for geography students, requires a morphological analysis of the riverbanks of the cities of participating institutions: Bratislava, Grenoble, Belgrade and Volgograd.

TK11 Urban mobility. The task is focused on urban mobility in Petržalka, Bratislava.

TK15 Visioning. The task presumes of creation and presentation of a strong common vision for a particular area, around which it would be possible to build a regeneration strategy.

TK16 Conceptual model design (the task might be placed under the LA72)

LA72 – DESIGN - HABITAT REGENERATION ACTION
This learning activity is intended to be a set of various learning tasks in which students will

present the design process or will propose actions as part of a regeneration strategy for a selected area.

TK20 Presentation of the action /design. In this task students present their final decisions, both group work and individual actions/designs according to the vision presented in one of the previous task.

9. Sequence of tasks

LA 69 The Workspace intro	**TK4** Introduce yourself and explain your reasons for choosing this course and expectations from international collaboration.	**TK5** Group introduction.							
LA70 Urban Habitat Regeneration and Integrative Urban Design in Sustainable Development			**TK6** Exploring the case of Ciutat Vella, Barcelona	**TK8** Exploring examples of urban regeneration strategies					
LA71 Regeneration Strategies for selected area					**TK9** Habitat analyses	**TK10** Urban morphology and regeneration of riverbanks	**TK11** Urban mobility	**TK15** Process of visioning	**TK16** Conceptual model design
LA72 Design – Habitat regeneration action									TK20 Presentation of the action / design
				Timing					
	Sept 2014	Sept 2014	Oct 2014	Oct 2014	Nov 2014	Nov 2014	Nov 2014	Dec 2014	Dec 2014 /Jan, Feb 2015
AF_BELGRADE	**TK4**	X	**TK6**	**TK8**	**TK9**	X	X	**TK15**	**TK20**
FASTU	**TK4**	**TK5**	**TK6**	**TK8**	**TK9**	X	**TK11**	X	**TK16**
VSUACE	X	**TK5**	X	X	**TK9**	X	X	X	**TK16**
UGA						**TK10**			

10. Define ways of collaboration / collaboration levels:

(e.g. Cross-Institutional, Trans-Institutional, Link to other WPs)

- Exchange of relevant information about the topics
- Widen understanding for habitat regeneration in different European countries
- Share and record video-lectures
- Organize critiques and presentations through video conferences

11. In addition to the OIKODOMOS Virtual Campus tools (WS, Case Repository) what other collaboration tools / environments are you using? What for?

A Facebook group at: https://www.facebook.com/groups/716510478414701/ has been established as an additional communication channel for less formal exchange of relevant information.

Teachers will be in daily contact via Gmail chat channel and the Facebook chat.

12. What are your expectations regarding the impact / influence of participating in this collaborative learning space?

AF BELGRADE (P-26)

For you as a teacher?
- To compare the proposed collaborative learning space with the other similar environments previously used.
- To efficiently coordinate the teaching/learning process

For your students?
- Students are expected to be more motivated, since they learn in an international context
- To have the opportunity to learn from international experts

For your course?
- The course has been created exclusively for this cooperation. It is a "vertical" elective, offered to third and fifth year students. We expect them to accomplish some group tasks, working in mixed groups (maybe international).

For your institution?
- To have an opportunity to compare teaching methodologies and to develop new ones

FASTU (P-3)

For you as a teacher?
- To do research on the topic of urban regeneration strategies in a European scale

For your students?

- To work in international learning environment, integration of participative methods

For your course?
- To know with the new methods of teaching and learning

For your institution?
- To have a wide collaboration with European and worldwide institutions and partners, to have new partnerships and friendships

FAVSUACE (P-31)

For you as a teacher?
- To study foreign methods of teaching and learning
- To expand boundaries of interaction
- To work out models of habitat regeneration is expected too

For your students?
- To work in groups with international experts

For your course?
- To Work out models of habitat regeneration

For your institution?
- The creation of a joint advisory group of teachers is expected in VSUACE

UGA (P-18)

For you as a teacher?
- To collaborate with teachers from WP4, exchanging documentation allowing studying European cities in a comparative way

For your students?
- To collaborate with students from other countries

For your course?
- To give the course an international dimension by studying cities from Central and Eastern Europe, benefitting from the expertise of colleagues from CEE countries

For your institution?
- To experiment the introduction of OIKONET in the teaching process at UGA

13. Please check the project goals to which your learning space will contribute:

Promoting **cooperation between research, education and society**, by bringing together stakeholders from different areas to formulate and discuss contemporary problems regarding housing at a European and global scale.	**x**
Providing students, teachers, researchers and other stakeholders with the **competences** necessary to work in a readily accessible international environment	**x**
Encouraging the **active participation** of these stakeholders in the creation of innovative learning spaces which overcome disciplinary and institutional boundaries	**x**
Facilitating **cooperation** between different academic programs which include housing (in its different dimensions) as subject matter.	●
Fostering **physical and virtual mobility** across partner institutions, by means of workshops, seminars, conferences and shared learning activities in blended learning scenarios dedicated to study contemporary housing issues.	**x**
Contributing to the **internationalisation of the European cooperation**, incorporating third countries to the network. This will facilitate the exchange and mobility at the international level, preparing the ground for further cooperation among network partners in future programs (Erasmus	**x**

Mundus).	
Promoting **new forms of international cooperation**, through the design and implementation of shared learning activities carried out following a blended learning approach with the digital environments of the OIKODOMOS virtual campus.	**x**
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	
Reinforcing the **societal roles of academic institutions** in a culturally and linguistically diverse Europe, by embedding the learning activities in those social milieus in which solutions for housing problems are needed (integration, immigration) thus activating knowledge through interaction with society.	**x**
Enhancing **interdisciplinarity and transdisciplinarity**, by creating new learning spaces which bring together different disciplines into the solution of housing problems.	**x**
Contributing to the **development of technology enhanced learning**, embedding ICT in the learning processes and learning structures.	**x**

13.3 Threshold Matters

1. Theme

Threshold Matters

2. Description

In a high-density world the relation between the private sphere and the public sphere is of an utmost importance. The way dwellings relate to the public sphere is one of the paramount issues designers deal with in their practise.

In this workspace students will 'designerly' do research on the relation between the domain of the dwelling and the domain of the public. The work in this workspace focuses on the intersection and overlay spaces of the public realm and the private sphere.

The students will explore the relation of the (private) dwelling to the (public) street and vice versa. In doing so, they will do research on how this relation can be seen as a field of mutual influence.

The learning activities in this workspace will be both of a theoretical and of a designerly nature, working on specific case studies and design assignments.

THRESHOLD MATTERS : TOPIC-SECTION
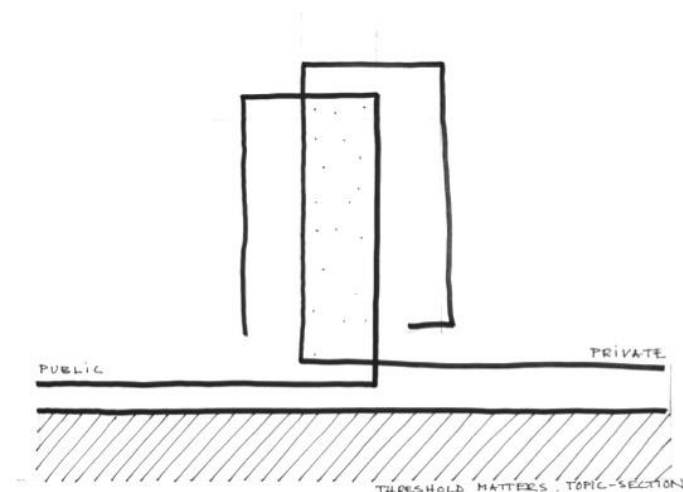
3. Course Level(s)

- KUL (P-4): Master Students through elective course OIKONET
- GTU (P-13):Bachelor students / second year, Design Studio, must course
- BUT (P-27): Master students / 1ˢᵗ year, design Studio, elective course – *second semester*
- DIT (P-29): No students in 1ˢᵗ semester, teacher involvement
- ETSA-UPV (P-2): Master students/ 1ˢᵗ year, design Studio, elective course

CONTEXT FIELD.
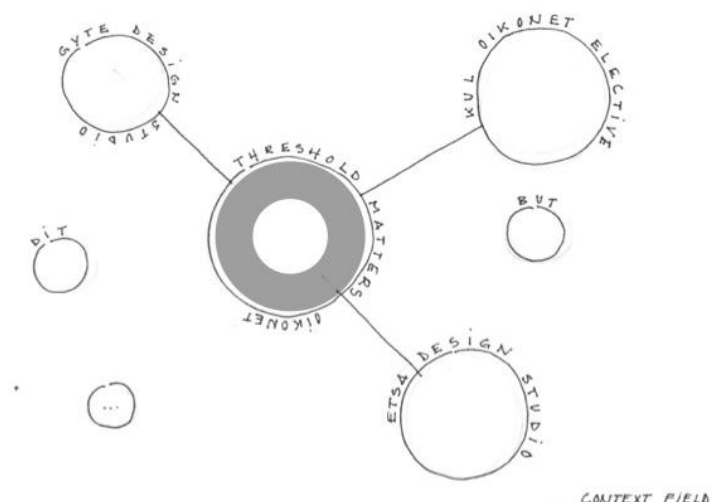
4. Coordinator

- Sedef Özçelik Güney, Turkey (P-13 GTU)
- Tomas Ooms / Faculty of Architecture KU Leuven, Belgium (P-4 KUL)

5. Participating Partners

- Aleksander Asanowicz, Katarzyna Asanowicz, Adam Jakimowicz, Bialystok University of Technology, Faculty of Architecture (P-27 BUT)
- Jim Roche, Dublin Institute of Technology (P-29 DIT)
- Carla Sentieri, School of Architecture of Valencia (P-2 ETSA-UPV)

6. Learning objectives

General aim of the learning space

Through the production of a series of sections and other drawings, students aim to understand the concept of 'Threshold Matters', the zone that makes the relation between the private sphere with the public sphere. Through the drawings students will map the characteristics of this relation and probe for common ground between the concern of private space and the concern of public space. The drawings should enable students to designerly take a stance on the current issue of public/private and how architecture facilitates the movement from one sphere to the other and on how the private relates to the public and vice versa. But it also investigates the possibility of communication both, the existing and newly imagined one. This could lead to a description of a desired relation and an architectural expression of this.

Specific learning outcomes

- The student is able to reflect on contemporary and innovative architectural-theoretical perspectives (P-4 KUL), (P-2 ETSA-UPV), (P-27 BUT)
- The student is able to communicate his/her research from an artistic-architectural perspective in a visual and verbal way (P-4 KUL), (P-2 ETSA-UPV), (P-27 BUT)
- The student is able to think and act across cultures (P4- KUL), (P-2 ETSA-UPV), (P27-BUT)
- The student will be able to do research on the necessary resources related with the architectural design process, and explore formally and conceptually relevant examples

for the design issue, and make use of all of these research products in the design process (P-13 GTU), (P-2 ETSA-UPV)

- The student will be able to present their architectural ideas and designs both visually and verbally since all the exercises performed in the studio will be open to discussion and sharing (P-13 GTU), (P-27 BUT)
- The student will be able to develop an awareness for various processes shaping architecture (P-13 GTU)
- The students will be able to achieve the ability of critical thinking on problems related with architecture a social discipline (P13-GTU), (P-2 ETSA-UPV)

7. Partners contributions

KUL (P-4)

- Specific expertise: design studio, research on public-private interface
- Teaching and learning resources (e.g. On-line or other formats): elective OIKONET course as an assessment activity:
- Past experiences / courses:
- What is your contribution / job in creating the learning space: coordinator and teacher

GTU (P-13)

- Specific expertise: design studio, research on public-private interface
- Teaching and learning resources (e.g. On-line or other formats): design studio on housing
- Assessment activities: commenting on other partners' works on-line.
- Past experiences / courses: design studio teaching on housing and public venues in the housing circles, teaching experience on previous OIKODOMOS projects
- What is your contribution / job in creating the learning space: coordinator and teacher

BUT (P-27)

- Specific expertise: Design studio, explorative digital media usage in design
- Teaching and learning resources (e.g. On-line or other formats): Experimental Design Studio + on-line resources
- Assessment activities: discussions in a group, on-line comments from partner institutions possible
- Past experiences / courses: Experimental Design Studio (Blurred Function Space)
- What is your contribution / job in creating the Learning Space: coordinator and teacher

DIT (P-29)

- Specific expertise
- Teaching and learning resources (e.g. On-line or other formats)
- Assessment activities
- Past experiences / courses
- What is your contribution / job in creating the learning space: teacher

ETSA-UPV (P-2)

- Specific expertise: design studio, research on public-private interface

- Teaching and learning resources (e.g. on-line or other formats): design studio on housing and on-line resources

- Assessment activities: discussions in group, on-line comments from partner institutions

- Past experiences / courses: design studio teaching on housing and sustainability

- What is your contribution / job in creating the learning space: teacher

8. Learning Activities

"Threshold Matters" will be implemented in conjunction with three courses carried out at three institutions: the OIKONET Elective Course for Master students at KUL, the GTU second year bachelor Design Studio and the in collaboration with students of the second year architecture program from ETSA-UPV. The topic of "Threshold Matters" will thus be tackled in different contexts and in different ways. All courses will participate of the same learning activities, but each course will follow a different sequence of tasks. Some tasks will be done collectively; others will build on the work previously done by other partner.

The activities have started spring semester of 2014, at the beginning of the OIKONET project. Partners form GTU, KUL, DIT and BUT agreed to develop and collaborate around the topic of the topic of spatial "thresholds". A second -more profound and integrated- edition will be active during the fall semester of 2014/2015. It is for this second edition that this template is created. However, we decided to keep the task from the first version listed in this document. The general structure of the "Threshold Matters" learning space has been the same in the two editions, only the learning activity LA "A micro perspective: the case study" was added to the second one.

What follows is an abstract of each of the courses participating in the learning space, describing the context and the way they are linked to the shared learning activities and tasks.

OIKONET Elective course (KUL)

The OIKONET elective course is an international housing research lab. It works within a network of 34 universities and institutions. It addresses the multiple dimensions of dwelling in today's societies (architectural, urban, environmental, economic, cultural and social) from a multidisciplinary and global perspective.

The elective will be organised as a design seminar based on interaction and collaboration between different architectural students from all over Europe and beyond. The elective is linked to an international workshop and an international conference.

The students will participate in Learning Activities 56, 57 and 58. The sequence of task is:

- TK6 Getting to know the OIKODOMOS platform
- TK7 #Threshold Matters
- TK8 Threshold in Parallel
- TK9 Architectural Review
- TK10 Urban CT scanning
- TK11 Urban CT Scanning written to graphical
- TK12 Design assignment: A Moment Between U & I

GTU Design Studio

The GTU design studio applies a "folded design teaching" method which deals with some of the abstract notions that come along with "house" and "thresholds". This particular method will divide the semester into three fragments:

1. Experimental teaching – Parallel Studios: space impact episodes. Conceptual mappings _ Architectural Expressions. This is linked to the **LA56 Explorations upon concepts of Threshold Matters.** The following tasks will be involved:

- TK1 Visual Impulses (will be exercised for a second time)
- TK6 Getting to know the OIKODOMOS platform
- TK7 #Threshold Matters
- TK8 threshold in parallel: trans-edges/thresholds

2. Focus on in-situ – Parallel visions: Exercises on case studies. The particular case study will be implemented to the design studio exercise in order to make full comprehension of the problems put forward. This will be developed through LA 57 Urban CT Scanning / Urban Tomography working on TK11 Urban CT Scanning written to graphical / Connected to TK7.

3. Design interventions – micro scale design proposals- It seeks for design proposals and innovative solutions with respect to the housing design problem and notions studied. LA 58 A micro perspective towards the "case study" neighbourhood / design will be the working context working on TK13 HOUSING/micro perspective: "Lonely man's shelter".

ETSA-UPV

The ETSA-UPV design studio is named "Recycling of the public space and urban design". It is a course that belongs to the line of specialization 2, "Architecture and sustainable habitat" of the Master in Advanced Architecture, Landscape, Urbanism and Design (MAAPUD). It takes place during the first semester, between November and December.

Students from ETSA-UPV will participate in Learning Activities LA56, LA57, in the following tasks:

- TK1 Visual Impulses
- TK7 #Threshold Matters
- TK9 Architectural Review
- TK10 Urban Tc Scanning
- TK12 Design assignment: A Moment Between U & I

BUT Design Studio

The BUT design studio developed within the OIKONET scheme is based on the previously developed Experimental Design Studio dedicated to explore "Blurred Function Space". This concept could be easily adapted to urban contexts to explore relations between public and private aspects of dwelling.

Within this approach the following stages can be distinguished:

1. **Searching**
   - Developing understanding of the design task
   - Finding Inspirations
   - Initial Idea Searching
2. **Questioning**
   - Dealing with constraints
   - Defining questions relevant to the design task
3. **Creating**
   - Ideas developing
   - Designing Process

The three stages outlined above are structured so that the local and the collaborative evaluations would be possible.

Students from BUT will work within learning activities LA 56, LA57 collaborating in performing the following tasks:

- TK1 Visual Impulses
- TK7 #Threshold Matters
- TK9 Architectural Review

In the following diagram the learning activities and tasks of the learning space "Threshold Matters" are described.
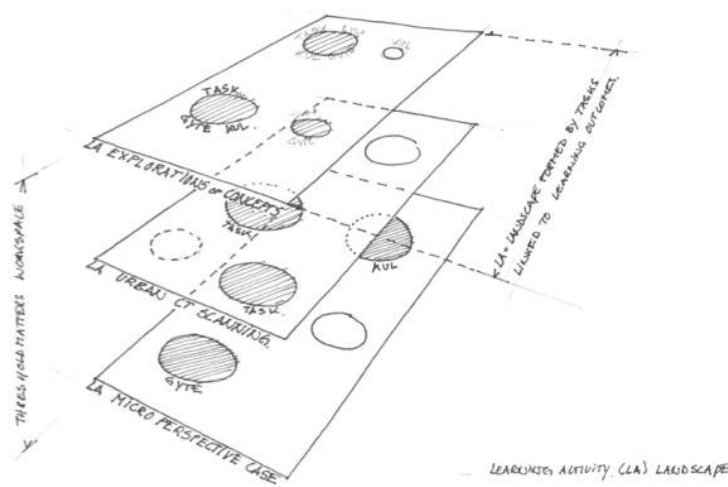
LA56 EXPLORATIONS OF CONCEPTS

Description

This learning activity seeks to explore the meanings of the following concepts:

- Soft edges

- Homogeneity

- Heterogeneity

- Sense of belonging

- Formation of identity

- Hierarchy of space Private to Public

- Liveliness

- Affordances

- Privacy vs. territoriality

- Types of permanent migration

- Ambiguity of space; private/public versus public/private

- Treatment of surfaces and detailing in the threshold zone

- Opportunities for socialising

- Threshold

- Common space

- Dual space

- Collective

Keywords
Knowledge Mining; Thresholds; Spatial and Social Patterns; Interfaces

Learning Outcomes
- The student will be able to develop an awareness for various processes shaping architecture (GTU P13);

- The students will be able to develop the ability of critical thinking on problems related with architecture a social discipline (GTU P13);

TK1 Visual Impulses
The goal of this task is to clarify the concepts that make reference to the phenomena of "Threshold" in the urban context. This first task aims to enhance the understanding of the concept of "Threshold Matters" and provide a general approach towards the idea of 'threshold spaces'. Visual material is urged for this conceptual mining work to comprehend the abstract concepts. Moreover, this task aims to give a visual archive for the concepts for students in their future studies in this particular workspace activities.

These concepts (see above LA56) that relate to the idea of threshold in the urban context make reference to the formulation of space: each concept is going to be presented via one particular image within an A3 (max. 2MB) document that is graphically designed. The images should be chosen carefully in order to yield an understanding of the "urban threshold" phenomena.

Students and teachers from ETSA-UPV will comment on the results of this task.

Participating courses: GTU, ETSA- UPV

Active: spring semester 2013/2014 and fall semester 2014/2015

TK4. Texture, Detail and Representation
Threshold is ambiguous. That zone in architecture between the public and the private world is hardly ever defined strictly but instead has many layers and associated treatments. The boundaries that legally define property for example do not define visual privacy. It has varied

meanings and treatments across different cultures and climates. Threshold is an ambiguous zone often described in planning terms as 'public/private' or 'private/public', a zone that affords options for socializing and amenity, a place to meet neighbours and for children to play. In housing, it is a transition between the very public realm of the street and the very private world of the dwelling. A consideration of its detail treatment is vital when defining an attitude towards threshold. These concepts below give clues regarding threshold in the urban context and how it might contribute to the formulation of the space: Soft / hard edges; Homogeneity; Heterogeneity; Sense of belonging; Formation of identity; Liveliness; Affordances; Opportunities for socialising; Privacy vs. Territoriality; Types of permanent migration; Hierarchy of space - Private and Public; and Ambiguity of space: private/public vs. public/private.

The task is for students to clarify their intentions for the detail treatment of a threshold space in their timber housing project. This could be an entrance from the street, a courtyard, an access gallery, a staircase or a hallway. Or part of any of these and other spaces. Every student is required to develop one or more drawings showing this treatment. These could be an atmospheric 3D drawing or a 1.10 detailed section or a combination of varied drawings.

Participating courses: DIT

Active: spring semester 2013/2014

TK5 Blurred Function Space
Developing the concepts of interrelation between private and public spaces in a given urban context.
This task ran in AC 2013-2014 and will not be part of the current focus of the workspace. Since the task exists in the platform, the description and task number remain part of this document.

Participating courses: BUT

Active: spring semester 2013/2014

TK6 Getting to know OIKODOMOS platform
Browse through the previous OIKODOMOS Workspaces (Civic Housing, Introduction to Housing and the Contemporary Living Patterns) and select a work that has been uploaded. Try to understand the work and write a short comment on the work. The comment should be constructive and address to both, the content of the work and to the way it is communicated on the OIKODOMOS platform.

The task is done by all students. The task of the teachers is to enhance communication between the students of the different courses.

Participating courses: GTU, KUL

Active: fall semester 2014/2015

TK7 #Threshold Matters
Select 4 (four) of the concepts mentioned in the description of LA56 Explorations upon concepts of Threshold Matters and write a 140 character message per concept through which you show your understanding and interpretation of that concept. If you could link this to a

current actual debate (news in general or architectural in specific) this would be a plus.

The messages that are written by KUL students (4 of the concepts mentioned in the description of LA56 Explorations upon concepts of Threshold Matters) will be discussed by GTU students using 25 word comments. A comparison between the discussions in the GTU Studio and how KUL Students cover the issues will be tackled in the comments.

ETSA-UPV students will read the description and look for a new text (from the theory of architecture) to complement it. Make a constructive comment.

Participating courses: GTU, KUL, ETSA-UPV

Active: fall semester 2014/2015

TK8 threshold in parallel: trans-edges/thresholds
The input for the Parallel Studios: space impact Episodes will be formulated as A3 posters. The dis/continuity between the ground/wall/canopy elements will be explored relating these thresholds with the feelings of cold/soaked/dirty/thirsty/tired.

KUL students will formulate a short comment on the work.

Participating courses: GTU, KUL, ETSA-UPV

Active: fall semester 2014/2015

TK9 Architectural Review
Using the OIKODOMOS Case Repository select an architectural project that relates to the topics you discussed and propose a graphic review on how the project relates to the concept (select four projects and make four A3 sheets).

ETSA-UPV Students are required to look for another project that relates to the same topic and give the reference to the student. It can be a way to gather the students.

Participating courses: KUL, ETSA-UPV

Active: fall semester 2014/2015

LA URBAN CT SCANNING / URBAN TOMOGRAPHY

Description

This particular Learning Activity seeks for CT Scans of the urban realm within housing settlements and/or detail studies of threshold spaces on particular project sites with respect to the architectural expression of the philosophical background of the concepts that were explored in LA 56 Exploration upon concepts of Threshold Matters.

The concept of the CT scan is an analogical reference to Urban Tomography; where Tomography is a definition for imaging by sections or sectioning.

Through the production of a series of sections and other drawings, students aim to understand

the Threshold Matters, the zone that makes the relation from the private sphere to the public sphere. Through the drawings students will map the characteristics of this relation and probe for common ground between the concern of private space and the concern of public space. The drawings should enable students to designerly take a stance on the current issue of public/private and how architecture facilitates the movement from one sphere to the other and on how the private relates to the public and vice versa. But it also investigates the possibility of communication both in the existing and in the newly imagined. This could lead to a description of a desired relation and an architectural expression of this.

Keywords

 Mapping; Boundaries; Thresholds; Urban Analysis

Learning Outcomes

- The student will be able to research necessary resources related with the architectural design process, and explore formally and conceptually relevant examples for the design issue, and make use of all of these research products in the design process (GTU P13)
- The student will be able to present their architectural ideas and designs both visually and verbally since all the exercises performed in the studio will be open to discussion and sharing (GTU P13)

TK2 Find and explore further techniques for scanning in order to describe the case study

TK3 Content of the "threshold" Study of the Project area (GTU P13)

TK10 Urban CT Scanning / Urban Tomography
Create a series of sections on the (proposed/given/selected) site. The sections should address and highlight the Threshold Matter on an urban level.

Students from ETSA-UPV will follow the process and make comments on the work.

Participating courses: KUL, ETSA-UPV

Active: fall semester 2014/2015

TK11 Urban CT Scanning written to graphical (Connected to TK7)
A series of sections will be created in the CT manner regarding the concepts that are tackled by KUL students at TK 7. A3 posters will be designed for the case study area: Uskudar/Istanbul. Every GTU student participating will select a paper of a student from and do the tomography work regarding the written essay by this particular student.

Students from KUL will follow the process and possibly respond to questions / act as mentors for the GTU students.

Participating courses: GTU, KUL

Active: fall semester 2014/2015

LA A MICRO PERSPECTIVE: THE "CASE STUDY"

TK12 Design assignment: A Moment Between U & I
Question our contemporary way of relating projects to the public domain. Through the use of sections you need to build up a design that relates to the research track that you have been followed in previous tasks. The output is a section model of an undefined length while the width is 1,00m (on scale of 1/50). The section is a reflection on Threshold Matters.

Students from ETSA-UPV will follow the process and make comments on the work.

Participating courses: KUL, ETSA-UPV

Active: fall semester 2014/2015

TK13 HOUSING/micro perspective: "Lonely man's shelter"
Design interventions will be made through the programme of "Lonely man's shelter" who seeks for thresholds to interact in the everyday life of Uskudar.   Every user looks for some interaction around the dwelling space that brings about the question of thresholds with such potentials. The design solutions are required for a single-living person trying to make connections with the physical and social surroundings of Uskudar. A2 Poster, design proposals are reflected with the conceptual approaches. Scale; 1/500, 1/100.

Participating courses: GTU

Active: fall semester 2014/2015

9. Sequence of tasks

LA56	TK1			~~TK4~~	~~TK5~~	TK6	TK7	TK8	TK9				
LA57		~~TK2~~	~~TK3~~							TK10	TK11		
LA58												TK12	TK13
LAXX													
Timing													
KUL (P4)	X	X	X	X	X	03/10 17/10	03/10 17/10	15/11 25/11	10/10 31/10	24/10 21/11	25/11 30/11	17/11 19/12	X
GTU(P 13)	19/0 923/ 09	X	X	X	X	12/10 15/10	15/10 25/10	10/11 15/11	X	X	25/11 30/11	X	11/12 15/12
ETSA-UPV (P2)	**30/0 9 17/1 0**						**28/10 7/11**		**10/11 17/11**	**24/11 2/12**		**12/12 22/12**	
BUT (P27)	**03 - 2015**	X	X	X	X	X	05 - 2015	X	**06 - 2015**	X	X	X	X

10. Define ways of collaboration / collaboration levels:
(e.g. Cross-Institutional, Trans-Institutional, Link to other WPs)

The way in which this is to be done and integrated in this learning space is mentioned in the task descriptions and on the planning document.

11. In addition to the OIKODOMOS Virtual Campus tools (WS, Case Repository) what other collaboration tools / environments are you using? What for?

Tools used by all participants: OIKODOMOS Workspaces and Case Repository, Facebook, Dropbox

12. What are your expectations regarding the impact / influence of participating in this collaborative learning space?

KUL (P-4)

- For you as a teacher: international experience at home, collaboration with colleagues, experience learning design, broadening of understanding of the topic;
- For your students: international experience at home, broadening of understanding of the topic;
- For your course: a smashing success.

- For your institution: gaining an international perspective about learning and teaching methods
-

GTU (P-13)

- For you as a teacher: sharing new methodologies for studio teaching, monitoring different levels of students
- For your students: experiencing an international platform, comprehension of international perspectives towards their work
- For your course: enrichment of the curriculum via a variety of teaching tools
- For your institution: gaining an international perspective about learning and teaching methods

BUT (P-27)

- For you as a teacher: exploring new design methods, widening the understanding of new possible approaches to urban spaces
- For your students: international experience at home, developing critical thinking in design
- For your course: enrichment of the curriculum thanks to the new design methods involved and new types of design outcomes
- For your institution: widening the perspective of teaching / learning possibilities

DIT (P-29)

- For you as a teacher: curious about how the interactions will give insight into teaching of housing, opens up a sharing collaborative non-combative space
- For your students: allows them to interact easily with fellow students abroad and to observe and comment on works in a professional manner which should enrich their learning and broaden their horizon
- For your course: enriches and internationalises the course
- For your institution: connects it internationally, broadens its profile

ETS-UPV (P-2)

- For you as a teacher: sharing new methodologies for studio teaching, monitoring different levels of students
- For your students: experiencing an international platform, comprehension of international perspectives towards their work
- For your course: enrichment of the curriculum via variety of teaching tools
- For your institution: gaining an international perspective about learning and teaching methods

13. Please check the project goals to which your learning space will contribute to:

Promoting **cooperation between research, education and society**, by bringing together stakeholders from different areas to formulate and discuss contemporary problems regarding housing at a European and global scale.	x
Providing students, teachers, researchers and other stakeholders with the **competences** necessary to work in a readily accessible international environment	x
Encouraging the **active participation** of these stakeholders in the creation of innovative learning spaces which overcome disciplinary and institutional boundaries	x
Facilitating **cooperation** between different academic programs which include housing (in its different dimensions) as subject matter.	x
Fostering **physical and virtual mobility** across partner institutions, by means of workshops, seminars, conferences and shared learning activities in blended learning scenarios dedicated to study contemporary housing issues.	x
Contributing to the **internationalisation of the European cooperation**, incorporating third countries to the network. This will facilitate the exchange and mobility at the international level, preparing the ground for further cooperation among network partners in future programs (Erasmus Mundus).	x
Promoting **new forms of international cooperation**, through the design and implementation of shared learning activities carried out following a blended learning approach with the digital environments of the OIKODOMOS virtual campus.	x
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	x
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	x
Reinforcing the **societal roles of academic institutions** in a culturally and linguistically diverse Europe, by embedding the learning activities in those social milieus in which solutions for housing problems are needed (integration, immigration) thus activating knowledge through interaction with society.	
Enhancing **interdisciplinarity and transdisciplinarity**, by creating new learning spaces which bring together different disciplines into the solution of housing problems.	x
Contributing to the **development of technology enhanced learning**, embedding ICT in the learning processes and learning structures.	x

13.4 Housing Systems

1. Theme

Housing Systems

2. Description

The purpose of the seminar is to introduce the concept of housing system. Understanding housing as a system means to take into consideration –all at once–: 1. the components that make a particular system (not only the physical elements such as structural components, but also the dwellers that inhabit the spaces) and 2. the interactions between the components (between structural components and building envelope, between dwellers and spaces). This notion of housing as system can be traced back to the work of Habraken and the SAR group in the 1960-70s. Nowadays, the notion of system pervades in the Open Building movement.

Understanding housing as a system implies dealing with issues such as industrialization and fabrication (mass customization), dweller participation, and adaptability. The application of ICT to the housing generation enables to address generative modelling (rule-based systems, parametric design).

3. Course level(s)

- Students from 3rd, 4th and 5th year of a five year architectural program.

- Preferably for students of the upper courses; ideally Master students.

4. Coordinator

Leandro Madrazo, School of Architecture La Sallle

5. Participating partners

Nadia Charalambous, Department of Architecture, University of Cyprus (P-15)

6. Learning objectives

- General aim of the learning space

The general aim of the learning space is to introduce a different perspective for housing design, changing the paradigm from the design of an object to the design of a system. The pedagogic purpose of this approach is to develop design strategies that enable to encompass the multiples dimensions determining the design of a living place, from social or psychological aspects to construction or economics factors.

- Specific learning outcomes

- to understand the basic principle of designing a housing system: that housing is a system (physical and abstract) made of sub-systems which are interrelated

- to be confronted to the task of building a model of housing system

- to learn and to play the role of "system designer" rather than of "designer of a building"

- to be aware that system design implies the participation of multiple stakeholders (including dwellers), and that the system should enable them making decisions in their respective decision making realm.

7. Partners contribution

LA SALLE (P-1)

Expertise: The expertise comes from developing the [BARCODE HOUSING SYSTEM](#) from 2002 to 2009.

Teaching and learning resources (e.g. on-line or other formats): The BARCODE HOUSING SYSTEM developed by our research group will serve as a model and example. The underlying principles of the system will be explained, its generative rules detailed. Later, students will be asked to generate "solutions" within this system. We will use the Case Repository in the first part of the seminar. We will utilize Workspaces to carry out the tasks of the second part of the seminar.

Assessment activities: They will focus mostly on practical works

Past experiences / courses: We have not done a seminar on the topic of housing systems yet, this will be the first time we do so.

What is your contribution / job in creating the Learning Space: We have proposed the topic, and create the Learning Structure (Activities and Tasks).

UCY (P-15)

Specific expertise: relevant design and research work through the housing studio taught at UCY since 2008.

Teaching and learning resources (e.g. on-line or other formats) studio blog and postgraduate course blog (includes all learning material).

Assessment activities and feedback; analysis of precedents and examples. Joint assessment and feedback through sharing of our assessment tools.

Past experiences / courses taught at UCY; we do not have a similar seminar but a design studio on housing which includes theoretical work as well.

8. Learning Activities

LA1: UNDERSTANDING HOUSING TYPES

Description
Identifying types of housing according to some specific criteria (the built-in taxonomy of the case repository)

Keywords
Type, typology

Learning outcomes
- The student will develop an understanding of the multiple and complex variables in relation to context that influence existing and new design proposal
- The student will be able to analyse the multiple variables that influence the already existing housing designs
- The student will be able to make appropriate use of different representation techniques (verbally, texturally and graphic-digital and analogue) in order to communicate their ideas (concepts and design proposals) in an effective manner
- The student will conduct research on housing topics and apply the information in new contexts

- The student will be able to define issues affecting the actual design of residential architecture (following the new social structures, globalisation, materials...)
-The student will be able to show an understanding of the different construction systems (concrete, steel frame, wood frame, etc.) and able to integrate them properly in a design proposal

TK1 Creating a housing collection

Identify and group housing case studies according to some specific criteria. These criteria, based on the built-in taxonomy of the case repository, will be representative of contemporary domestic architecture.

TK2 Creating a housing case study

To search for a new case study of housing to be included into OIKDOMOS Case Repository. The new case study should fulfil some of the criteria chosen in Task 1 by the student. These criteria, based on the built-in taxonomy of the case repository, will be representative of contemporary domestic architecture.

TK3 Reflecting on housing types

To summarize in a short essay -2 pages maximum, without figures- some notion of type or typology derived from the readings. The essay should comply with academic conventions concerning quotations and use of bibliographic references.

LA2: INTRODUCING HOUSING SYSTEMS

Description

To introduce the basic concepts, based on theoretical precedents (e.g. Habraken's theories, Open Building)

Keywords

System, support and infill

Learning outcomes
-   The student will be able to make appropriate use of different representation techniques (verbally, texturally and graphic-digital and analogue) in order to communicate his/her ideas (concepts and design proposals) in an effective manner
-   The student will conduct research on housing topics and apply the information in new contexts
-   The student will be able to criticize their own work and that of others by reference to established models of good practice and the appropriate standards

TK4. Critical reading of selected essays

The activity consisted in writing a short essay summarizing the concept of system in architecture, based on the reading of selected texts from John Habraken, Christopher Alexander, Team X and the Open Building group.

TK5. Study of precedents

The task is to analyse and present different previous works which the idea of system is present (mat buildings, etc.)

TK6_Understanding BCHS

Introduction to the BARCODE HOUSING SYSTEM (BCHS). The tasks is to understand the

structure and the performance of the BCHS to create new housing schemes based on it.

LA3: DEVISING HOUSING SYSTEMS

Description
Generating housing designs within a housing system

Keywords
Generative design, rule-based systems

Learning outcomes- The student will be able to make appropriate use of different representation techniques (verbally, texturally and graphic-digital and analogue) in order to communicate their ideas (concepts and design proposals) in an effective manner
- The student will conduct research on housing topics and apply the information in new contexts
- The student will be able to criticize their own work and that of others by reference to established models of good practice and the appropriate standards

TK7 Devising a housing system
Students propose a housing system, designing its internal structure and its performance, in a way being able to generate different housing solutions for diriment inputs (contexts, programs, etc.)

TK8 Generating designs within the proposed system
Students propose housing designs within their own designed housing system

9. Sequence of tasks

TASKS								
	Oct.	Oct.	Oct.	Nov.	Nov.	Nov.	Dec.	Jan.
LA1	TK1	TK2	TK3					
LA2				TK4	Tk5	TK6		
LA3							TK7	TK8
LA4								

10. Define ways of collaboration / collaboration levels:

(e.g. Cross-Institutional, Trans-Institutional, Link to other WPs)

- Cross-institutional. Some concrete tasks can be shared with courses at other institutions, for instance:
  - Specific tasks can be shared with other partners
  - Student's work can be commented by teachers or students from other institutions
  - Lectures by teleconference on specific themes: housing types, housing systems, BARCODE HOUSING SYSTEM

Other partners can propose video lectures on related themes.

-Links to other WPs. The relationship with other WPs will focus on the research category "DESIGN (Methods, Concepts, Applications in Architecture and Spatial Planning)" defined in the matrix. In particular, WP2 Research partners can participate by:
- suggesting bibliography and case studies
- commenting some of the student's work, particularly essays

11. In addition to the OIKODOMOS Virtual Campus tools (WS, Case Repository) what other collaboration tools / environments are you using? What for?

We will use OIKODOMOS Case Repository and Workspaces. A Twitter channel has been created (@Housing_Systems). Besides, we want to facilitate discussions about select topics in more "social" environments; it could be a Facebook page or a blog.

Some of the material created (e.g. explanations of the BARCODE HOUSING SYSTEM) could be useful for the MOOC.

12. What are your expectations regarding the impact / influence of participating in this collaborative learning space?

- LA SALLE (P-1)

For you as a teacher?
- This is the first time we put together a seminar on the topic of Housing Systems. It will help us to bring to students the expertise we gained in the creation of the BARCODE HOUSING SYSTEMS. It will help us to disseminate the results of this project among the consortium.

For your students?
- Students are typically asked to design specific design solutions for a particular site, program, etc. Rarely are they confronted to the task of designing a "system".

For your course?
- It will open up a new line of work not explored until now, if possible engaging other partners in it

For your institution?
- It will help to create ties between research and pedagogic activities, an issue which is not always easy to tackle.

- UCY (P-15)

For you as a teacher?
- To incorporate blended learning in my teaching
- To get feedback from colleagues in different academic environments
- To get familiar with different and diverse teaching methods and learning

resources

For your students?
-      They will be exposed to different cultural and academic contexts
-      They will be able to experience different methods of learning through the virtual campus
-      They will have not only the opportunity to comment on other students' work but also to receive feedback from both peers and tutors

For your course?
-      It will be enriched both in terms of teaching methodology but also in terms of references and learning resources
-      It will benefit from constructive criticism from both students and colleagues abroad

For your institution?
-      To enhance the possibilities for international networking and collaboration
-      To increase students and staff exchanges

13. Please check the project goals to which your learning space will contribute to:

Promoting **cooperation between research, education and society**, by bringing together stakeholders from different areas to formulate and discuss contemporary problems regarding housing at a European and global scale.	
Providing students, teachers, researchers and other stakeholders with the **competences** necessary to work in a readily accessible international environment	x
Encouraging the **active participation** of these stakeholders in the creation of innovative learning spaces which overcome disciplinary and institutional boundaries	x
Facilitating **cooperation** between different academic programs which include housing (in its different dimensions) as subject matter.	x
Fostering **physical and virtual mobility** across partner institutions, by means of workshops, seminars, conferences and shared learning activities in blended learning scenarios dedicated to study contemporary housing issues.	
Contributing to the **internationalisation of the European cooperation**, incorporating third countries to the network. This will facilitate the exchange and mobility at the international level, preparing the ground for further cooperation among network partners in future programs (Erasmus Mundus).	x
Promoting **new forms of international cooperation**, through the design and implementation of shared learning activities carried out following a blended learning approach with the digital environments of the OIKODOMOS virtual campus.	x
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	
Establishing **evaluation procedures** to guarantee the quality of the pedagogic activities to be implemented by network partners, in mixed formal and informal pedagogical settings.	x
Reinforcing the **societal roles of academic institutions** in a culturally and linguistically diverse Europe, by embedding the learning activities in those social milieus in which solutions for housing problems are needed (integration, immigration) thus activating knowledge through interaction with society.	x
Enhancing **interdisciplinarity and transdisciplinarity**, by creating new learning spaces which bring	x

together different disciplines into the solution of housing problems.	
Contributing to the **development of technology enhanced learning**, embedding ICT in the learning processes and learning structures.	**x**