



Healthy living places: a pedagogical experience between Health and Architecture.

Neiva, Ana (1), Leão, Teresa (2)

ana.neiva@ulp.pt (1), teresaleao@med.up.pt (2)

- (1) Arq.ID - Arquitetura, Investigação e Desenvolvimento, Faculdade de Comunicação, Arquitetura, Artes e Tecnologias da Informação - Departamento de Arquitetura, Universidade Lusófona do Porto, Porto – Portugal
CEAU-FAUP - Centro de Estudos de Arquitetura e Urbanismo da Faculdade de Arquitetura, Universidade do Porto. Porto, Portugal
- (2) Departamento de Ciências da Saúde Pública e Forenses, e Educação Médica, Faculdade de Medicina, Universidade do Porto, Porto, Portugal
EPIUnit - Instituto de Saúde Pública, Universidade do Porto, Porto, Portugal
Laboratório para a Investigação Integrativa e Translacional em Saúde Populacional (ITR), Universidade do Porto, Porto, Portugal

Abstract:

The places where people inhabit determine their health and wellbeing. Architects, as designers of the physical characteristics of living and working spaces, and their surrounding urban atmospheres, can thus influence environmental conditions, social interactions, and the individuals' downstream lifestyle factors.

A person-centred training may help future architects to learn their potential as health promoters through architecture and urban planning and obtain the basic tools. The “Health, Wellbeing and Architecture” interdisciplinary course offered students (from the Medical and Architecture schools) a user-centred perspective, following a student-centred approach. By guiding students through the common contents of Architecture and Public Health in lectures with teachers and researchers from both fields, exposing them to the perspectives of inhabitants in field visits, and providing space to discussion, students learned to analyse real-world examples of neighbourhoods, discussed how housing conditions and neighbourhood characteristics could be influencing health problems, and proposed solutions to improve the users health and wellbeing. Students complemented technical architecture skills with public health evidence, and social participation to propose the design of healthier living environments.

Student- and user-centred approaches were key to facilitating dialogue among both areas' students, teachers, researchers, and users. Their reactions and the technical outcomes were very positive, with students reporting to be able to think about health from a broader perspective and to think about architecture considering its impact on the health of its users.

Bridging architecture and public health and centring teaching practices on students and users perspectives is fundamental to put people's health and wellbeing as a priority for Architecture.

A STUDENTS-CENTRED AND AN USERS-CENTRED APPROACH: INTERDISCIPLINARITY, DIALOGUE AND CO-PRODUCTION OF KNOWLEDGE

The motivation to design a course that could bring together two apparently distant fields, as Architecture and Public Health, was brought up by the recognition of the gap between common design priorities and the daily use of spaces, considering its substantive impact on inhabitants' health and wellbeing. These threads, connecting both fields in a reciprocal way, are often ignored, and architects (as well as health professionals) often have a detached understanding of the influence of design on the creation of healthy living spaces, ignoring the sociological, economical, psychological and physical living and as modifiable determinants of health.

The specificity of knowledge, interests, and lexicon that characterizes both fields, raised an expressive set of challenges, namely at the pedagogical level, that stimulated the exploration of ways of setting a common platform for dialogue and, more than finding affinities and contact points, the creation of conditions for sharing diversity of perspectives, in a co-production of knowledge.

In fact, the concept of dialogue as a space to produce knowledge is central and determinant for referential pedagogical strategies (Huber, 1937). Paulo (Paulo Freire, 1995) considered that all participants are equals and encouraged to bring their personal experiences to a joint learning process. Freire, as well as Barlett and von Köppen, pointed out the need to elude hierarchical positions between teachers and students, to facilitate spontaneous contributions to the discussion, to create a strong basis for empowerment and transformation of society, (Köppen & Fulda, 2022).

This course approach was very much aligned with these concepts, as we consider our role as facilitators of learning opportunities much more than emitters of unidirectional flows of information.

Furthermore, the promotion of students' contact with spaces users, both in field visits and in group projects, and with researchers from both areas has placed students as active agents in the learning process. This may have initiated many of them in the

research experiment, nurturing new points of view, bringing awareness and a more cognisant voice within both fields.

These participatory methodologies, advocated both in research and in the design of health promotion programs (P. Reason, 2001); Bardbury, 2008; (Jacobs, 2016), introduced interesting notions of end-user-centred approaches and framed the relevance of considering the impact of design, understood in terms of architecture project, into the populations' working and living conditions.

The concept of participatory design, in architecture, is closely linked to the concept of participatory research on public health, both originated back on to the 1960s and 1970s civil and political movements, from United States to Scandinavian countries. This concept, present in both fields, acknowledges the relevance of user centred approaches, so that the design of public health interventions and/or living spaces is done “*with* and not *on* or *about* or *for* individuals and communities” (Ann C Macaulay, 2017).

The benefits of participatory approaches are commonly perceived by students from both areas, in theory. Nevertheless, they are rarely able to put those into practice and these approaches, highlighting interdisciplinary and collaborative ways of knowledge production, either through challenge driven methods or user-centred approaches, redefined the set of rules to which one should be guided: “the new rules are the rules of networks, not hierarchies.” (Sanders, 2002).

THE COURSE: HEALTH, WELLBEING AND ARCHITECTURE

The course was supported by the University of Porto call for innovative interdisciplinary courses – INOVPEP program – and offered 25 places for architecture and health students from different graduation stages (from the 2nd year of bachelor's to the final year of master's degrees), aiming at raising their awareness regarding these issues, promoting interdisciplinary and intergenerational dialogue and cooperation.

The course comprised lectures, field visits, and group autonomous work on diagnosing, analysing, and advancing solutions to four case studies in the city of Porto.

The lectures, thought as moments of common-language and common-content setting, gathered three architects, one landscape architect, one medical doctor, and one geographer both dedicated to public health research. They introduced key notions, such as health determinants (including housing, urban, and socioeconomic) and health needs, the role of living and green spaces, principles of passive and sustainable design, and accessible age-friendly living places. All – students, teachers, researchers – were active participants, reassuring the plurality of contributes,

recognising multiple ways of knowing and doing (Norström et al., 2020). The informality of the sessions allowed a much-needed flexibility, crucial to identify the need to clarify concepts and provide references in the both fields, nurtured an ongoing dialogue through the course.

Three field visits were done in the city of Porto, on Saturday mornings, to substandard and social housing projects, affordable and collective housing, a deprived urban area where a green area is being designed based on a participatory process, and a new urban park. Taking the students into real contexts, accompanied by an anthropologist and an architect from a local institution responsible for all local social housing, and allowing the interaction with the inhabitants and users of those spaces, permitted a deeper understanding of the topics explored in the theoretical sessions and, principally, fostered a strong engagement with the community, diluting the distance between the (future) architects and health professionals, and these spaces' users.

This connection with the inhabitants ensured a more complete look: when visiting a neighbourhood, architects and architecture students tend to focus on the buildings' characteristics – aesthetical, formal, constructive aspects and conservation status. The theoretical background, provided in lectures, and the interaction with health students and local inhabitants, introduced new layers of analysis, considering the users' experiences and their needs and expectations, particularly related to the impact on their health. Moreover, students visited the interior of some houses and explored inhabitants' routines, (un)healthy habits, behaviors, expectations, and limitations regarding access to fresh food, health services, transportation, green spaces and other social infrastructures (Klinenberg, 2018).

The group work, person-centered, context-based and goal-oriented (Norström et al., 2020), expanded the research to other four neighbourhoods in the city of Porto – Grupo de Moradias Populares do Carvalhido, Paranhos, Luís de Almeida d'Eça, 1957; Bairro Municipal de Habitações Populares de Rebordões / Bairro São João de Deus / Bairro do Tarrafal (Fase 1), 1941-1944 (Nuno Brandão Costa, 2016); Grupo de Moradias Populares do Bom Sucesso, Luís de Almeida d'Eça, 1956-1958; Bairro de Casas para Famílias Pobres Rainha D. Leonor / Bairro das Sobreiras (fase 1), Luís de Almeida d'Eça, 1952-1953. (Inês Lobo, 2007) –, selected for presenting diverse situations regarding urban context, typologies, and state of conservation.

The groups, with health and architecture students, collected data about the health status of their inhabitants and its potential (socioeconomic and environmental) causes, identified potential threats to the inhabitants' wellbeing in the living spaces – public and private –, and discussed multiscale intervention strategies and solutions at the urban level, collective spaces and dwelling's interior.

The variety of circumstances introduced by field visits and group works, from recently refurbished *ilhas* and modern architecture housing examples, to unaltered situations

of low standard housing models of peripheral access conditions, was intended to exemplify different inhabitants' experiences and expectations on living and comfort standards. Learning from the field visits on how to approach inhabitants and to identify obstacles and risks to healthy and comfortable living environments, as well as to confront architectonic options for updating buildings conditions, students were exposed to the person-centered participatory approach and to the concept of *postdesign*, as defined by Elisabeth (Sanders, 1999): "the inclusion of all the relevant stakeholders changes the nature of design activity from one of individual creativity to one of collective generativity".

Beyond *participation as consultation* – where individuals are asked about their health priorities, perspectives about the possible solutions and their level of involvement – Sanders claims for the participation of end-users in the design process, expanding the actions of listening to their thoughts to a complete observation of "what they make", analysing informal solutions as valid problem-solving strategies as much as to consider the models of appropriation as important clues to support the real needs of the users.

REFLECTION

The "Health, wellbeing and architecture" course explored human-centred approaches, advancing ways to be "back to the human scale". Indeed, this interdisciplinary, student and users-centered approach, promoted the exposure of students to common-ground concepts and their integration with users' experiences, in a co-production of knowledge between all the participants – students, teachers, researchers, and inhabitants.

The interaction between design and health was explored, from the dwelling to the urban scales, from the integration of the neighborhood into the urban fabric, the dwelling living conditions, and social interaction and sense of belonging. The design was, thus, observed by all students in its role in the physical, social and psychological conditions of spaces, interior or exterior, from the technical- and users-centered perspective. Also, an intense learning process occurred from the interpersonal level of connections and interdisciplinary dialogue, resulting on an ongoing learning process with (hopefully) future echoes.

This pedagogical experience, promoting the co-production of knowledge rooted in the analysis of real-world people's needs and expectations and in the cooperation between architecture and health students, proved to be highly effective. Students did not only evolve technically but also reported this as a very positive experience, with a strong emphasis on the empathic relationship created in-between the class, with the teachers and during the site visits. This non-hierarchical methodology concerning teaching and learning roles, joining research and teaching areas, while fostering

empathy and interpersonal relationships, considering end-users as active part of the design process, motivates sustainable, empathic and rational problem-solving design solutions.

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