

Moving Boundaries Manifesto

Wherever we are, we are constantly affected by the surrounding environment, and to the same extent, our presence is always affecting space. We are not alone on this planet, nor are we self-sufficient as individuals or as a species. Rather, we are part of socially and biologically diverse ecosystems, and are co-responsible for networks of resource transactions that maintain our preservation. When we discuss social and biological sustainability, we are also discussing the conditions for our survival. Respecting our environments is therefore evidence of a deep self-knowledge, as it is these same environments that provide us with the components of our existence.

However, as a result of the frenetic pace of modern urban life, we are suffering from a marked and accelerated process of distancing – from our communities, from nature, and even from ourselves. Some architecture colludes in this process by forcing occupants to live, work, and play in spaces that are unresponsive to the full complexity of human existence. In these times of social isolation, synthetic experiences, and remote relationships, re-establishing our natural bonds with our surroundings is of critical urgency.

The solution is clear. It starts with regaining presence in the environments we inhabit, and once again engaging in collaborative interactions with the people, ecology, and built environments that form our surroundings. We need to coexist with the world around us and enjoy our bodily experiences on a more aware and conscious level. Creating meaningful spaces is the antidote.

The Moving Boundaries program allowed us to spend two intensive weeks with an international group of practitioners learning from esteemed faculty dedicated to the understanding and creation of meaningful architectural experiences that reciprocate the most fundamental human needs and desires. At this program, we shared ideas and perspectives, and built lasting relationships with others passionate about human-centered environments. This was accomplished in two distinctive European cities. First, at the Contemporary Art Center of Galicia in Santiago de Compostela, the end-point of the Camino de Santiago, and one of the best preserved Medieval old towns in Europe, full of narrow, winding roads and historic buildings. Then, at the Casa da Arquitectura in Porto, a port city on the Douro river in northern Portugal with a poignant mix of contemporary and historic neoclassical buildings. Both of these settings reminded us of the value of cultural and architectural diversity. At the end of the program, we – the attendees – were tasked to write down our shared vision in the form of a manifesto. In this manifesto, we strive to answer three critical questions: who are we? What do we want? And, how do we get there? Answering these questions helps us build identity, frame intention, and inform action.

Who are we?

We are architects, designers, and engineers. We are philosophers and historians. We are researchers in cognitive science, psychology, anthropology, and neuroscience. We are policy makers and we are politically engaged. We are teachers and professors, educating the next generation of architects and designers of the built environment, as well as the next generation of human scientists. We are active members of our communities, patrons of great architecture, and students of science. We are here to make the world a better place.

As architects, we have the technical knowledge to build architectural and urban spaces that meet the formal, functional, and aesthetic demands of a project. However, architects are also

asked to understand the needs, desires and feelings of people and translate them into space. While multidisciplinary teamwork has been a part of architecture for a long time, involving actors from all engineering specialist fields, city planners, land developers, agronomists, and others, this cast does not guarantee a holistic outcome. What this team lacks are professionals capable of understanding, measuring and predicting the sensory, emotional, cognitive, and behavioral interactions of users in the projected space.

As human scientists, we are aware that humans are multi-sensorial beings, capable of recognizing – explicitly and implicitly – aspects of environments that afford benefits. Understanding these preferences using the tools of science becomes an invaluable tool for parametrizing the design of spaces. Science, therefore, has something valuable to offer architecture, despite a long history of the two disciplines operating in relative isolation from one another. Like the architects, it is our vision to connect science and architecture, in order to foster design approaches rooted in empirical research.

As individuals, we are aware that we have needs, desires and feelings about the world and the spaces we inhabit. As a result of our *situatedness*, knowing yourself and knowing the world are linked in a reciprocal process of understanding. Knowing yourself also improves your ability to empathize with others, which is a critical part of the design process. For these reasons, we are committed to the development of self-knowledge, as it is through self-knowledge that we are able to become instruments of design.

What do we want?

Given the diversity, nuance, and complexity of human life in the 21st century, a multidisciplinary approach to architecture that is rooted in empathy, self-knowledge, and human-centered design is necessary. There already exist numerous subspecialties independently working to understand the world we live in and our terms of interaction with it. However, any isolated approach to understanding the complexity of this relationship will be limited – the perspective of any one specialty in isolation can only reveal part of the larger reality, making a unified multidisciplinary approach necessary.

There is no single way to occupy a space, but there are patterns of behaviour and subjective experience that are consistent across different individuals and are amenable to empirical investigation. Similarly, a person's genetics, personality, physical health, emotional wellbeing and previous life experiences can be understood using tools of science, providing an objective foundation from which behavioural and psychological predictions can be generated. For these reasons, we want to build a design movement that has a foundation in the human and biological sciences, including sociology, anthropology, psychology, cognitive science, and neuroscience, which together answer questions about the human psyche, identity, culture, self-knowledge, and social interactions, and help us understand – through data – the place humans occupy in the world.

Just as there is no single way to occupy a space, there is also no single way to build a space. On one extreme end of the spectrum, there can be an over-reliance on top-down approaches inspired by esoteric philosophies, detached from the lived realities of end-users. As a reaction against this approach, we want to buttress our foundation with a commitment from our designers to work with the end-users in mind, incorporating human-centered research and empathic practices as much as possible, holding firm the conviction that this approach will produce more meaningful, humane, and democratic spaces.

How do we get there?

Working together begins with developing a common language between architecture and the human sciences through which we can collaborate. From here, the following eight step process can be implemented: (1) Architects clearly express the design intentions of a project to the human scientists; (2) Human scientists communicate the contributions empirical research can make to the project, so that their utility can be evaluated; (3) Both groups work together to form tractable research questions about human factors in the built environment; (4) Leverage existing research methods (i.e., ethnography, qualitative analysis, behavioural analysis, etc.) to build upon a repertoire of standardized methodologies that can be repeatedly taught and applied; (5) Once outlined, human scientists conduct robust empirical research on pre-specific aspects and hypothesized outcomes of the design, using stimuli developed by the architects; (6) Incorporate the research findings in a manner that links into and benefits the design ideation, construction, and/or existing design phases, so that the findings are appropriately contextualized respective to the multiple stages of a project timeline; (7) Evaluate success of design interventions derived from research findings using pre/post comparisons; and (8) Share research methodologies, findings, and design results with the broader community to support the creation of a network of colleagues solving similar issues.

In many instances, the collaboration between architecture and human sciences is already underway. However, there are intricacies to this collaboration that merit explication to unlock our combined potential. The fact that the Moving Boundaries community is composed of experts from both fields places us at the forefront of the growing trend to incorporate human-centered research processes in the design of architecture and the built environment. This union allows us to address humanity's most complex problems through architecture, following a rigorous and empirical identification process using sophisticated research tools and scientific theories. Through this process, we intend to expand the disciplines of architecture and the human sciences to exciting new territories and unlock the limitless potential of urban and architectural design. Now is the time to act, and we must act together!