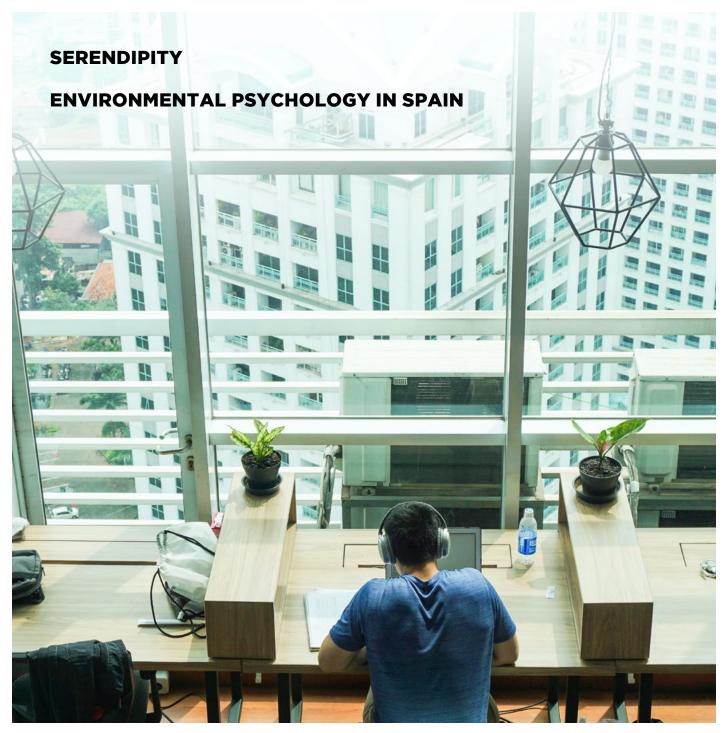
# BULLETIN



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### New publications section for IAPS members

Those members who have recently published an article in a well evaluated or high ranked journal, as well as a book or book chapter with a relevant publisher, please send your reference with a brief abstract (60 words) about the content of your publication, to: adrianaportella@yahoo.com.br, and it will be included into the next issue.



## FROM PRIVATE SPHERE BEHAVIOURS TO A FOCUS ON ALL TRANSFORMATION ROLES

#### **Environmental Psychology Group at the University of Magdeburg**



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In 2011 the chair for environmental psychology was established at the University of Magdeburg. At that time, it was the only one in Germany. Environmental Psychology at the Otto von Guericke University was established with the intention to further develop interdisciplinary research between social sciences and engineering, in particular with respect to sustainability technologies. Since then, several new chairs for Environmental Psychology have been installed, e.g. at the University of Applied Sciences in Darmstadt (Daniel Hanss), or at the University of Koblenz-Landau (Gerhard Reese). However, still unique is the offer of a master program in environmental psychology at our university (run together with my colleague Florian Kaiser). We started with about 20 applicants for the program, last year we had nearly 200.

The early team of our group consisted of three colleagues with roots in the environmental psychology group at the Ruhr-University Bochum (Ellen Matthies, Anke Blöbaum and Ingo Kastner) that was accomplished by a group of five PhD-students, all involved in a large research project on the German "Energiewende" (ENERGY-TRANS), a project that also allowed us to build up cooperation with international colleagues like Paul Stern, John Thøgersen and Christian Klöckner. Early research topics were in the domain of energy related behaviours and decisions (e.g. Bobeth & Matthies, 2018; Kastner & Stern, 2015; Nachreiner et al., 2015) and the framing of interventions in the energy sector (Steinhorst et al. 2015). Further international cooperation and activities – e.g. the EU funded GLAMURS project or the collaboration within the PERSON network (Steg et al., 2021) enriched and advanced our development.

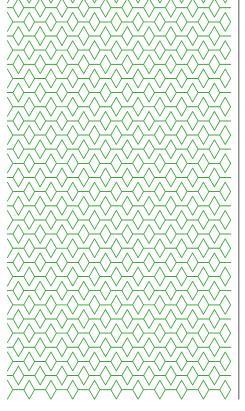
#### RESEARCH ON THE MANIFOLD ROLES AND ACTIVITIES WHICH INDIVIDUALS CAN TAKE TO SUPPORT THE TRANSFORMATION TOWARDS A SUSTAINABLE SOCIETY

Over the last ten years we have developed a research program that covers the whole spectrum of environmental psychology, and in particular the manifold activities of the individual relevant for the Great Transformation towards sustainable societies. We differentiate between three lines of research projects focusing on different aspects of the role of the individual in the transformation process.

- Active participation in change **processes:** In this cluster we develop and carry out research on active acceptance of new technologies, an example is the current project AuRa ("Autonomes Rad", in English: Autonomous Bicycle), in which we investigate potentials for a future cargo bike service, that uses autonomously driving bikes (Krause et al., 2020). Another example is a multidisciplinary project Build4People with colleagues from human geography, urban planning and others which aims at the initiation of new sustainable everyday behaviours and sustainable building practices in Phnom Penh, Cambodia. This project will be described in more detail in the next section.
- Support of political instruments and climate policies: Here we are learning how measures like a carbon tax or restrictive regulations affect quality of life and perceived social justice. In the project KlimaHand (Matthies et al., 2020) we investigated the subjective evaluation of the German carbon pricing system, in particular the public understanding of the use of revenues for compensatory measures. In another project we focused on psychological aspects of political activism, e.g. the motivation for engaging in the Fridays for Future Movement (Wallis & Lov. 2021). A rather new project focuses on the possible gains we have, when we engage in sufficiency behaviours for a good cause, and we coined the concept of a "solidarity-based quality of life" for this (Wallis et al., 2021).

- Informed design and evaluation of instruments: In a line of several projects we have critically evaluated political instruments and their interaction with everyday consumption patterns with the aim to reveal and limit unintended side effects; e.g. we could show more promising entry points for food waste reduction (Schmidt 2016) or analysed how PV-owners use their self-generated electricity (Wittenberg et al., 2018; Wittenberg & Matthies, 2016). Our expertise is in demand in interdisciplinary advisory boards (e.g. ESYS, a long-term initiative of the German Academies of Sciences to evaluate the German energy transition), in governmental advisory councils, and we also work with local initiatives and collaborate with the Scientists for Future.

We do not want to present all our collaborations and research projects here, nor do we want to refer to all international cooperation. Instead, we would like to take a closer look at an international, transdisciplinary project that, in our view, particularly represents the fusion of environmental psychology research and transformation science.



#### BUILD4PEOPLE - A LONG-TERM PROJECT AT THE INTERFACE OF TRANSFORMATION SCIENCE AND CLASSIC ENVIRONMENTAL PSYCHOLOGY

The transdisciplinary Build4people Project (https://build4people. org) aims at enhancing quality of life through sustainable urban transformation in the capital of Cambodia, Phnom Penh. The research consortium consists of representatives from four German universities (Hamburg University: Human Geography; University of Stuttgart: Building Energetics, Thermotechnology and Energy Storage; University of Sustainable Development Eberswalde: Department of GIS and Remote Sensing; Magdeburg University: Environmental Psychology) and two German companies with their respective research (Institute for Climate and Energy Concepts, INKEK; Urban Planning and Design Office, EMP Architects), as well as implementation and dissemination partners in the Kingdom of Cambodia. The local research partners of the psychological team are working in the social science department (psychology, sociology) of the Royal University of Phnom Penh. Funding agency of Build4People is the German Federal Ministry of Education and Research (BMBF) who has supported a 20-month Definition phase from 2019-2021. This set the ground for the current 4-year Research and Development phase (2021-2025). If the project is successful there is the chance to receive funding for another two years in the context of a so-called Implementation phase (2025-2027).

The project intends not only to work in a multidisciplinary scientific way, but also – in line with the theoretical and methodological concept of environmental psychology - to work solution-oriented and transdisciplinary, using a variety of methodological approaches such as action research concepts. The specific challenge lies in the claim to promote the normative framework of a transformative urban change towards more sustainability, and at the same time to shape the transformative change processes together with the people living in

Phnom Penh in order to meet the demands of the sociocultural context of Cambodia (Waibel et al., 2020). When it comes to promoting change towards sustainability in Cambodia, the first questions are: how to (1) identify the biggest environmental issues on the ground and how to (2) figure out the high-impact domains that should be addressed. In this regard, the Build4People team aims at accounting for the context specific parameters that shape and influence the constraints and windows of opportunity of a sustainable urban transition.

Countries like the Kingdom of Cambodia are currently confronted with enormous construction activities in their biggest cities like Phnom Penh, Sihanoukville and Siem Reap. As the building and construction sector is responsible for about 38% of energy- and process-related emissions worldwide, it appears to be a highly significant domain when it comes to reduce greenhouse gas emissions, especially in fast growing big cities (OECD and IEA, 2013; UNEP and Global ABC, 2016).



Figure 1: Building activities in Phnom Penh, Cambodia. ©Build4People



Figure 2: Recently erected gated community in Phnom Penh (left), climate-adapted architecture at the Royal University of Phnom Penh from the 1960s (right). ©Build4People

For example, the Global Green Growth Institute (GGGI) anticipates a doubling of the urban population in Cambodia by 2030 and warns of housing shortages and an under-supply of infrastructure in this context (GGGI, 2019). The Build4people project therefore focuses on the situation in Cambodia's capital Phnom Penh.

To reduce building-related carbon emissions and energy systems effectively and ecologically, the multidisciplinary team focuses not only on sustainable construction materials and climate-adaptive buildings but pursues a comprehensive approach also including issues of sustainable urban planning, the impact of urban green infrastructure, the general acceptability of "green buildings", and local energy consumption patterns. All this is guided by a people-centred approach associated to several environmental psychological concepts and research questions, considering the experiences, perceptions and behaviours of urban citizens of Phnom Penh. The focus of the environmental psychology group at the University of Magdeburg on people-environment interactions hereby becomes an essential issue in the pursuit of Build4People's objective to enhance both the living environment of people and the ecosystem of the urban environment.

In recent years, Phnom Penh has seen the construction of many highrise condominium buildings, urban and suburban housing developments, and gated communities for the urban upper and middle classes (the so-called "new consumers").

However, these developments do neither improve the urban

quality of life for the majority nor the sustainability of the city. It is precisely the promotion of the Urban Ouality of Life (UOoL) in Phnom Penh. that is the overall research-guiding aim of the Build4People Project, that is considered as an essential people-orientated multi-dimensional component of a sustainable urban transformation. In accordance with this, the project addresses Urban Quality of Life in two ways: an analytic research approach that asks for the relative impact of different objective and subjective factors on Urban Quality of Life, and a more normative approach, that understands sustainable transformation as an essential prerequisite for Urban Quality of Life, especially regarding the comprehensive Sustainable Development Goals.

The concept of Urban Quality of Life has a long multidisciplinary research tradition and brings together social sciences as human geography, sociology and environmental psychology (Bonaiuto et al., 2015). With this in mind, the conceptual framework of the research activities of the Build4People project integrates sociological, psychological and geographical aspects.

The right to a certain quality of life has to be qualified with respect to solidarity, in order to prevent the restriction of others – this is especially the case for high density urban areas. The realization of a desired individual quality of life may happen at the expense of others (e.g. gentrification or living in gated communities). At that point, Urban Quality of Life is not only an individual project. Moreover, UQoL has to be considered as a social project

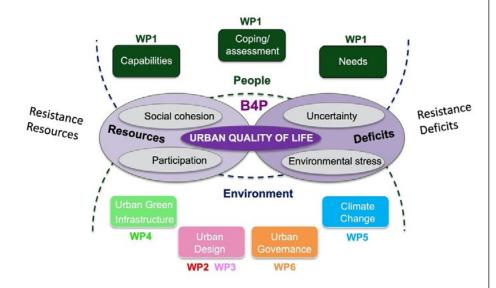


Figure 3: Framework of people-led strategies to enhance Urban Quality of Life (modified after Jaeger-Erben & Matthies, 2014).

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and a process of negotiation (Jaeger-Erben & Matthies, 2014). Fostering conditions that are considered through the concept of resistance resources might be one relevant goal in the domain of sustainability strategies. From the perspective of Environmental Psychology, psychological and social resistance resources play an important role when it comes to the entire resilience of the eco-social system of urban spaces. Figure 3 depicts the framework for Build4People's integration of different factors that affect Urban Quality of Life and reflects the interplay of subjective factors (people sphere) and objective factors (sphere of environment). WP1 to WP6 reflect the different sub-projects and their main research domains concerning UQoL within the multidisciplinary consortium1.

The project is very much interested in the interaction of people and their urban environments, considering the assessment of objective factors as the climate, the built environment and the socioeconomic sphere based on the cooperation with the other disciplines. This leads to a transdisciplinary process of conceptualizing the interplay of the facets that determine people's urban quality of life. One of the relevant environmental features is the public urban green (e.g.

public playgrounds, parks, road side trees). In close cooperation with the Build4People team, a Citizen Science input app is developed, that will allow to link GPS data from the field (objective data) with the assessment of these environmental features, based on people's assessments using the app.

As the project also looks for starting points to foster sustainable behaviours and sustainable living in accordance with the overall aim to enhance Urban Quality of Life (UQoL), the methodological portfolio is supplemented by a representative household survey and focus groups, asking for the main drivers and barriers for sustainable behaviours of the urban middle-class in Phnom Penh.

This procedure is intended to illuminate possible contradictions between individual lifestyle preferences and sustainable lifestyles, and aims at the development of theory-based and data-driven intervention techniques in order to foster sustainable behaviours of the new consumers in Phnom Penh. Following the concept of a peoplecentred approach, and considering the inhabitants of Phnom Penh as everyday experts, all intervention methods have to be fine-tuned via participatory processes.

Besides, the action researchoriented activities of the Build4People
project intend to apply participation
strategies and integrate local
stakeholders into the development
of transition pathways that shall be
initiated during the project (e.g. the
so-called the "Build4People EcoCity
Transition Lab", an urban living lab
consisting of several joint activities
with academic and governmental
institutions, mainly organized by the
urban planners of the Build4people
project).



Figure 5: Mobility behaviour in Phnom Penh. ©Build4People

According to the experiences gained from the first EcoCity Transition Lab process that took place during the Definition phase of the project funding, the impression arose that participation concepts are rather unknown in the statutory urban planning practice and political context of Cambodia. Practiced participation does not seem to work in a comparable way to the processes one might experience within Western cultural contexts.

Planning in urban Cambodia is not understood as a process but as a

publication of master plan documents in a top-down manner. Those planning documents are usually already outdated upon publication given the high urban development dynamics. Correspondingly, architecture and urban planning does not seem to be much people-orientated but with a strong focus on design only. The psychological team will therefore investigate cultural, social, and psychological factors in that regard, and will thereby support the other disciplines in their action research-

based activities and participation processes.

We feel that our research within the interdisciplinary Build4People project best illustrates our development as researchers in the field of Environmental Psychology. We hopefully could give a fruitful insight into our work and in particular, how we at the University of Magdeburg make use of our expertise as environmental psychologists in order to contribute to a global sustainable development.





#### **Footnotes**

<sup>1</sup> WP1= Environmental Psychology work package.

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