

## Interdisciplinary Initiatives for Age Friendly Environment. Editorial

VERONIKA KOTRADYOVÁ, CARINA DANTAS,  
DEAN LIPOVAC



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*Veronika Kotradyová, Faculty of Architecture and Design, Slovak Technical University, BCDlab, Námetstie slobody 19, 812 45, Bratislava, Slovakia; e-mail:*

*veronika.kotradyova@stuba.sk*

*Carina Dantas, SHINE 2 Europe, Rua Câmara Pestana, lote 3 - 1º DF, 3030-163 Coimbra, Portugal; email: carinadantas@shine2.eu*

*Dean Lipovac, Innorenew, University of Primorska, Livade 6a, 6310 Izola, Slovenia; e-mail: dean.lipovac@innorenew.eu*

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In the past decades, many design researchers, theorists and practitioners have shown a common interest in the humanities and social science studies, their theories, and their methodology. Practitioners from scientific fields such as social anthropology, ethnology, environmental psychology, or sociology have provided specific knowledge and perspectives on design theory and practice (e. g. Hall, 1969; Kaplan, R., Kaplan, S., 1989; Gifford, 1996; Miller, *Ed.*, 2001, 2009). Leading architecture and design theorists and practitioners (Pallasmaa, 2005; Alexander, Ishikawa, Silverstein, 2006, and many others) contributed and formed the conceptual framework for human centred design and universal design in the last decades (e. g. Gee, 2006; Samová et al. 2008; IDEO, 2011, 2015; Gehl, 2013). Specifically, in the area of human-centred design, interdisciplinary projects have been generated providing complex insight into various themes related to the built environment and material culture.

One of the interdisciplinary cooperation projects in recent years has been Identity SK – a common platform of design, architecture and social sciences<sup>1</sup> between the Faculty of Architecture and Design, STU in Bratislava, Faculty of Social and

1 [www.projektidentita.sk](http://www.projektidentita.sk) (Accessed September 2<sup>nd</sup>, 2023).

Economic Sciences, Comenius University in Bratislava and Institute of Ethnology and Social Anthropology at the Slovak Academy of Sciences (2017–2021).

Its scope was the contemporary transformation of traditional material culture, its impact on regional development, well-being, hospitality and the role of modern design within it.

The intensive interest in universal design/design for all (D4All) has existed at the Faculty of Architecture and Design for a couple of decades and it was established at the research and development institute CEDA – Center of Design for All, in 2007. At the same time, the focus on human-centred and body-conscious design is present on the Body Conscious Design laboratory platform, established in 2012.

Smart, flexible, and multidisciplinary solutions have the potential to enhance and facilitate self-sufficiency across the entire span of life, regardless of factors like age, gender, disabilities, cultural distinctions, or personal preferences. Taking a comprehensive approach that optimises both social and physical surroundings, reinforced by digital tools and services, can result in improved healthcare and social services. This not only fosters self-reliant living but also promotes fairness and active participation in society. This approach aligns with the United Nations' agenda, particularly with respect to Goals 3 and 11 of the Sustainable Development Goals.

The difficulties faced by various sectors, such as information and communication technology<sup>2</sup>, construction and urban planning, and healthcare and social services, are interconnected with the concerns of citizens and their communities. Responding to these challenges can raise awareness and garner support for developing and implementing intelligent, health-conscious, and inclusive environments that accommodate the needs of both current and future generations. These environments should facilitate learning, personal growth, work, social interactions, and the enjoyment of a healthy life, all while capitalising on digital innovations, accessibility solutions, and adaptable support models within the European context. This is the background against which the SHAFE (Smart Healthy Age-Friendly Environments) Network was born and several related initiatives and projects were developed, aiming to coordinate inclusive design and adaptable environments with community care and well-being.

The SHAFE Foundation<sup>3</sup> and the NET4Age-Friendly COST Action<sup>4</sup>, as well as projects such as the BIG game – Building Inclusive Environments for all generations<sup>5</sup> were key to understand that creating sustainable environments accessible to all age groups is fundamental to ensuring a brighter future for the entire populace and addressing the mounting challenges posed by an ageing demographic.

2 e.g. PHAR-ON's overall objective is to make smart and active living for Europe's ageing population a reality by creating a set of integrated, highly customizable and interoperable open platforms with advanced services, devices, and tools including IoT, artificial intelligence (AI), robotics, cloud/edge computing, smart wearables, big data, and intelligent analytics, on EU, level; <https://www.pharaon.eu/> (Accessed September 5<sup>th</sup>, 2023).

3 <https://shafe.eu> (Accessed September 2<sup>nd</sup>, 2023)

4 <https://www.net4age.eu/> (Accessed September 2<sup>nd</sup>, 2023)

5 <https://www.big-game.eu/> (Accessed September 3<sup>rd</sup>, 2023)

These national and international level initiatives, together with European initiatives in human-centred design, especially the initiatives related to the theme of ageing, led to the ERASMUS plus project DESIRE in 2020: DESIgn for all methods to cREate age-friendly housing, as an international partnership involving 5 partners from 4 countries. The partners were the Slovak University of Technology in Bratislava – Slovakia (coordinator); the Institute of Ethnology and Social Anthropology; Slovak Academy of Sciences – Slovakia; CETEM – Spain; SHINE 2Europe – Portugal and InnoRenew CoE – Slovenia. The main scope was working on Design for All (D4All) applied to age-friendly housing.

DESIRE has provided professionals in the building industry and home furnishings sector with the tools and skills to apply D4All methods as an integral part of the design process. The aim has been to create or adapt age-friendly housing as a solution for the well-being, comfort and autonomy of the older adults or dependants at home.

The project brought a great opportunity for the building and home furnishings sector to enforce innovative actions at the training level to overcome skill mismatches and promote new design guidelines focused on needs of older adults.

The project's main objectives were the following:

- Define the conceptual framework of the DESIRE training course and overcome skill mismatches on D4All at the VET (Vocational education and training) and labour market level,
- Develop an innovative training course on D4All to meet older adults' emotional, cognitive and social needs while driving new opportunities in the habitat sector,
- Raise awareness about D4All and age-friendly housing in habitat professionals and general society as a key determinant of active and healthy ageing,
- Foster interactions and knowledge exchange in the design process between cross-cutting areas to develop competitive and innovative products and services.

In the first phase, a comprehensive guide of the training and employment skill gaps in D4All at VET and labour market level was developed.

Through desk research and outputs of workshops organised by partners in their countries in 2021, working materials such as the Matrix of Gaps were set, providing guidance determining the needs of older adults, as well as suitable forms of training materials<sup>6</sup>.

In the second and most extended phase, DESIRE training content/curriculum was set, consisting of 6 modules.

Module 1 is an introduction to an age-friendly and inclusive environment. It deals with the shift to holistic environments due to the pressure derived from demographic and climate change, focusing on the World Health Organisations (WHO) and Smart Healthy Age-Friendly Environments (SHAFE) models, ageing and environment through the lens of anthropology, basic pathophysiology of ageing and basics of

6 <https://ipbe.innorenue.eu/ipbe/article/view/13/8> (Accessed September 3<sup>rd</sup>, 2023)

## Matrix of Gaps **RESUME**

- The topic is present in curricula on many/all level of education in the specific field of study
- The topic is present in curricula on some levels of education in the specific field of study
- The topic is not present in curricula on any levels of education in the specific field of study

06	Advanced and assistive technologies				
	Architecture	Design	Social work/assistance	Medicine/Healthcare	Other
	SLOVAKIA SPAIN	SLOVAKIA PORTUGAL SLOVENIA	SLOVAKIA PORTUGAL SLOVENIA	SLOVAKIA SPAIN PORTUGAL SLOVENIA	SPAIN PORTUGAL SLOVENIA
	PORTUGAL SLOVENIA	SPAIN	SPAIN		SLOVAKIA

07	Supporting activities, social atmosphere, and wellbeing in the environment				
	Architecture	Design	Social work/assistance	Medicine/Healthcare	Other
	SLOVAKIA SPAIN	SLOVAKIA	SLOVAKIA SLOVENIA	PORTUGAL SLOVENIA	SLOVAKIA SPAIN PORTUGAL SLOVENIA
		SPAIN			
	PORTUGAL SLOVENIA	PORTUGAL SLOVENIA	SPAIN	SLOVAKIA	
			PORTUGAL	SPAIN	

08	Inclusive human-centered approach				
	Architecture	Design	Social work/assistance	Medicine/Healthcare	Other
	SLOVAKIA SPAIN	SLOVAKIA	SLOVAKIA SLOVENIA	SLOVAKIA SPAIN	SLOVAKIA PORTUGAL SLOVENIA
		SPAIN			
	PORTUGAL SLOVENIA	PORTUGAL SLOVENIA	SPAIN PORTUGAL	PORTUGAL SLOVENIA	SPAIN

human-centred design. It includes a practical training unit about communication skills and research design on age-friendly environments. Social anthropology and ethnology are sciences based on fieldwork research; because of this, anthropologists and ethnologists have developed many different ways to approach their subjects and get a deep insight into their everyday lives and perspectives. These research methods and tools can be easily acquired by designers and other design practitioners during the design process, ensuring a better understanding of the client's needs.

Module 2 is about the ageing process and design, together with related changes in body systems. It brings an overview of the most common diseases in the older population and offers recommendations for active ageing and physical activity promotion in older adults. It also includes anthropological insight into embodiment and the materiality of old age.

Module 3 is a comprehensive summary of all know-how concerning age-friendly built environments in the field of architecture, including an introduction to human-centred design, recommendations for creating multisensory environments and wayfinding, D4ALL and adaptive housing agenda for residential buildings and their surroundings and apartment spaces.

FACTSHEET  
**TRANSNATIONAL REPORT  
ON SKILLS GAPS**



Co-funded by the  
Erasmus+ Programme  
of the European Union

Module 4 summarises the know-how about age-friendly built environments on the level of interior design. It offers a comprehensive summary of complex comfort agenda and age-friendly interior design, including indoor quality and ecological approaches to the built environment.

Both modules 3 and 4 are enriched with many pictures, schemes and graphics, helping to understand the topic of agefriendliness and the philosophy of design for all.

Module 5 brings knowledge about age-friendly product design, how to design and develop an age-friendly product design from scratch, safe and inclusive furniture for everybody and particularly important ergonomic product design for older adults.

Module 6 offers product engineering, including information for producers

regarding risk analysis and risk management, usability engineering of use and CE marking.

Modules are published on an online DESIRE Repository Platform,<sup>7</sup> for learning the contents at their own pace, take tests to assess learnings that include questions and gaming strategies and receive a certificate upon completion of the course.

At the same time, the modules are published as text, which is useful for regular students of design, architecture, social sciences, social and health care, plus caregivers. They are also available on the website of BCDlab.<sup>8</sup>

During the project an animation film for the broad public<sup>9</sup> was also created, presenting some of the recommendations on how to create an age-friendly built environment.

PhD students and bachelor and master students of product and interior design and architecture were involved in the project via their assignments. This helped to introduce and deepen the topic of ageing and age-friendly environments to future generations of professionals. Many dissemination activities, including a final conference, media presentations and other live events, have put a spotlight on this topic.

This special issue of the Slovenský národopis / Slovak Ethnology offers a platform to amplify this topic. The guest editors invited authors to contribute to the topic of

<sup>7</sup> <https://desire.learning-platform.eu/> (Accessed September 3<sup>rd</sup>, 2023)

<sup>8</sup> <http://www.bcdlab.eu/desire.html> (Accessed September 5<sup>th</sup>, 2023)

<sup>9</sup> <https://www.youtube.com/watch?v=VmDr6lyZGsk> (Accessed September 1<sup>st</sup>, 2023)

design theory and practice from the perspective of humanities and social sciences, with a special focus on interdisciplinary approaches, having featured collaborative work with the COST Action NET4Age-Friendly (CA19136 International Interdisciplinary Network on Smart Healthy Age-friendly Environments).

The contributions address various aspects of this interrelation, such as: human-centred design and the application of approaches of social sciences (particularly design anthropology) and humanities in this area; universal design and the application of methodologies and methods of social sciences and humanities in this area; interdisciplinary approaches to design thinking and practice that are oriented towards particular social groups (older adults/seniors, disabled people, etc.); critical design practice and its perspective on current societal issues (public health, environmental crisis, and others) through the lens of social sciences and humanities; and participatory approach in design.

The special issue presents 3 scientific papers and one review article. All studies focused on older adults and people with disabilities.

The first paper in the special issue is titled *Towards a More Inclusive Triple Transition and Quadruple Helix Innovation Ecosystems: The Case of the Catalanian Col·laboratori on Health and Well-being Within the INTEGER Project*. It is written by Antonia Caro-González from the I2Cat Foundation, Digital Society Technology Unit, Barcelona; Eoh-for-Good, Bilbao; and Faculty of Social Sciences and Law, Valencian International University – VIU, Valencia, Spain.

The article examines European innovation ecosystems, which have faced the pressing need for a more inclusive, interdisciplinary, human-centric, and environmentally sustainable triple transition encompassing social, green, and digital aspects. While many regions have been fostering collaboration among different stakeholders within their innovation ecosystems, most have excluded some of the key participants: citizens and people from different age groups.

The main research question addressed in the paper is how a collaborative model that includes all relevant stakeholders can be harnessed to unlock the potential of EU innovation, with a specific focus on the critical policy area of healthy living and well-being. Through a mixed-method approach, combining quantitative data analysis, case study analysis, and auto-ethnographic records, this research aims to provide a comprehensive understanding of how bringing together stakeholders from various sectors and with different perspectives fosters co-creation and knowledge exchange (see also Caro-González et al., 2023).

The second published paper titled *VirtuALL Project in 6 Municipalities in the Centre Region of Portugal: A Cross-sectional Study* from author Mónica Sousa et al. from Portugal, focuses on a project that aims to empower older adults to age in place by bringing different types of technology to them. The focus of this article is to analyse the influence of the VirtuALL project on 810 participants over 65 years old ( $76.5 \pm 7.27$  years; 76% female) from 6 Municipalities in the Central region of Portugal. Findings revealed an improvement in digital skills, social interaction, physical and cognitive performance, suggesting that interventions that combine

different technologies with social innovation are assumed as an important strategy for the promotion of healthy ageing and ageing in place, fighting ageism and promoting health literacy and digital skills. The existing findings are encouraging although additional research is needed to prove its effectiveness.

The third published paper with the title *The Circulation System of Buildings: A Key Determinant of Social Behaviour and the Quality of Social and Health Care for People with Cognitive Impairments*, is from authors Michal Kacej and Zuzana Čerešňová from CEDA, Faculty of Architecture and Design, STU, Bratislava, Slovakia.

The article focuses on the impacts of healthcare and social care facilities on people with cognitive impairments. It emphasises that the building circulation system significantly influences the quality of care provided and social control. The reasons why contributors chose to use a specific circulation system are explained using examples, which include the concept of Robert Hook and Thomas Story Kirkbride's linear circulation system, Jeremy Bentham's radial circulation system (Cantaş, Can, 2022: 122), and others. The article provides a historical overview of the typology of social and healthcare facilities for people with disabilities. It describes the transformation process of institutional social care facilities into a community-based service in the context of deinstitutionalisation. In conclusion, the article outlines a vision of possible solutions that consider current economic and technological requirements of care facilities.

These papers, with their interdisciplinary studies, widen and enrich the topic of human-centred design. The issue also contains a review of the DESIRE educational material, the 6 Modules, written by Zora Pauliniová.

The last article in the issue is not connected with the main topic, but it represents an important ethnological method, using biographical documents as a source of knowledge about a certain historical period. The study titled "*Against Myself*": *Ego Documents in the Archives of the State Security* written by Ivica Štelmachovič Bumová analyses autobiographies of two Jewish members of the former secret police during the communist era after World War II. in the former Czechoslovakia. These ego documents can be viewed as self-representations or self-constructions of their authors, reflect the broader context of historical, social and cultural representations and provide us with a lot of information about the contemporary era. This paper also responds to long-standing debates among scholars regarding the diversity of ego documents, their use and interpretation in the historical and social sciences.

On the last pages of this issue you will also find several book reviews that comment on some interesting and up-to-date ethnological and anthropological publications on various topics published recently.

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## ABOUT THE AUTHORS

VERONIKA KOTRADYOVÁ (ORCID: 0000-0001-5925-5516) – is a professor at the Faculty of Architecture STU Bratislava, Slovakia. She has been a lecturer, researcher and project manager since 2002. She is a graduate of Wood science and technology faculty of TU Zvolen, specialising in spatial design. During her PhD study in Germany she started with eco-design, later as post-doc she spread her research specialisation to body conscious design/ human centred design, which she began in 2006 as a visiting Fulbright scholar at UC Berkeley, USA. She is a founder of the research and development centre Body Conscious Design laboratory/BCDlab at the FAD STU that is a platform for her interdisciplinary studies of comfort/well-being in micro-environment. She was a coordinator of the ERASMUS+ project DESIRE focusing on age friendly environment.

CARINA DANTAS (ORCID: 0000-0002-9887-7622) – has a degree in Law, she is a PhD candidate on Biomedical Sciences (AI ethics) and is the CEO of SHINE 2Europe with over 20 years of experience in areas related to health, social aspects and ICT. She is the Chair of the COST Action NET4Age-Friendly, currently gathering over 700 participants from 51 countries. She is also Director of the SHAFE Foundation – Smart Healthy Age-friendly Environments and Vice-President of the European Covenant on Demographic Change. Carina is evaluator/reviewer for the European Commission, Eureka, AAL, EIT Climate and EIT Digital; Committee Member of CEN/CENELEC TC 428, Advisory and Ethics Board Member of several Horizon and AAL projects, and reviewer of ICF Journal, Geriatrics and MDPI. She manages several international projects such as SIRENE | Social Innovation Responsive Environments NETWORK, an HORIZON Europe CSA, where she is the Project Coordinator.

DEAN LIPOVAC (ORCID: 0000-0001-8413-2032) – is a researcher at University of Primorska and InnoRenew CoE. He completed a master's degree in applied psychology and a doctoral degree in renewable materials for healthy built environments at the Faculty of Mathematics, Natural Sciences and Information Technologies, University of Primorska, in Koper, Slovenia. His work is focused on researching the effects of the built environment on human mental health. He investigates how different materials used in indoor design influence physiological, emotional, and cognitive indicators of well-being. His long-term aspiration is to help create indoor environments that encourage a healthy mind and a healthy body.