

## Project description for the Angewandte Research Days 2025

1.300 words

### **SENSING LIVING SYSTEMS**

#### **Exploring the Potentials of Multisensory Scenography for Systems Awareness**

FWF founded PEEK-Project based at AIL Angewandte Interdisciplinary Lab, commenced in July 2023  
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#### *Context*

We live in a world that is permeated by systems, whether in nature, art, technology, business or society. A deep understanding of systems is crucial to solving complex problems, making better decisions, anticipating future developments, coping with change and creating joyful presents and sustainable futures.

It is important to understand that everything in our world is part of a larger system and is interrelated, from biological cells, human animals, all other animals to trees and governments. We have an innate ability to perceive systems and their interdependencies, but often unlearn this through linear thinking, fragmented perception and mechanistic world views.

#### *Team*

The artist and researcher duo MUELLER-DIVJAK (Dr. Jeanette Müller and Dr. Paul Divjak), who conceived and initiated the artistic research project '**SENSING LIVING SYSTEMS – Exploring the Potentials of Multisensory Scenographies for Systems Awareness**' is working at the AIL / University of Applied Arts together with Mag. Alexandra Graupner (project leader) and Anna-Maria Irgang as well as with international artists and systems scientists on the development of multisensory scenographies. Principles of living systems are translated into olfactory, auditory and tactile artworks / artefacts and used experimentally. The scenographies are created to provide sensory impressions helping for better understand and resonating with living systems.

SENSING LIVING SYSTEMS is a project that is fed by different expertise, ranges of experience and individual world views. It is not only nourished by an interdisciplinary approach, but is also largely based on the intercultural backgrounds of various project partners and collaborators. Please find all partners [here](https://ail.angewandte.at/explore/sensing-living-systems-topic/): <https://ail.angewandte.at/explore/sensing-living-systems-topic/>

#### *Aims*

The project result is supposed to be a multisensory scenography that can be utilized in different places and that enables an embodied learning experience for diverse users, so that they can perceive themselves as a living system embedded in living systems, capable of taking action. This also in terms of a systemic change – on an individual, societal and structural level – for the implementation and achievement of the Sustainable Development Goals / SDGs, which represent a universal compass for the shaping of a life-affirming social, ecological and economic transformation of our world.

The project explores – with a special focus on the senses of smell, hearing and touch – how direct sensory experiences by staging olfactory, auditory and haptic artworks and stimuli artistically, i.e. by way of specially arranged spaces, can contribute to heightening our awareness of nature and to developing a deep understanding of living systems and imparting systems literacy. SENSING LIVING SYSTEMS expands the field of scenography as a means for arts-based innovation and transformative research and supports systems science education, from systems sensing to systems literacy.

### *Framework*

The project is based on the General Systems Theory (GST), developed by Austrian-American biologist Ludwig von Bertalanffy in the 1940s. GST is an interdisciplinary framework that seeks to identify common principles across all types of systems. It emphasizes a holistic approach with a focus on relationships, interdependence, and the dynamics of whole systems. It applies to open (living) systems that interact with their environment, enabling self-organization, adaptation, and the pursuit of goals. The theory also highlights the importance of hierarchies, feedback loops, and homeostasis, offering a universal framework for understanding complex systems across various disciplines.

### *Research Design*

SENSING LIVING SYSTEMS is structured in four interrelated phases, each addressing specific research questions. At the beginning of the project, it was essential to establish a shared foundation and language around systems science principles, interpretations, and artistic forms of expression. This was particularly important given the interdisciplinary nature of the project members and the overarching concept. A series of Learning Studios and a symposium served to facilitate this alignment.

In parallel, the research team began to explore multisensory scenography as a methodology for fostering and conveying systems awareness. Through a number of Learning and Co-Creation Studios, the first sensory agent artefacts were developed. These early prototypes explored different approaches to determine which sensory strategies could effectively support the development of systems awareness.

After several iterative development phases, the team is currently focusing on how the scenographic elements influence the emergence of systems awareness. This is being investigated through focus groups within scenographic test settings in the AIL. The aim is to create an embodied learning experience that conveys systems thinking through sensory immersion. Insights from these focus groups directly inform the final development of the multisensory scenography, which will culminate in the project's closing phase, bringing together the core findings of the research process.

Alongside these project phases, a series of artistic interventions in the AIL-SLS-Cabin (Kassenhalle of PSK, Georg-Coch-Platz) accompany and reflect the research process. These interventions serve both as a form of knowledge translation and as participatory objects that invite the public to engage with SENSING LIVING SYSTEMS. This *Series of Scenographic Studies* focuses on artistic interpretations of systemic principles. Since October 2023, six installations have been presented in the AIL Art Cabin as part of this series.

### *Conception of SŸS*

In the course of working on SENSING LIVING SYSTEMS a not yet tangible being emerged, which the team calls SŸS. The SŸS is a mythological and at the same time contemporary real being, an entity who has developed “system awareness” and is very much at home in a complex and challenging, constantly changing world - and enjoys it. An embodiment that copes with multiple developments and crises in the socio-, eco- and techno-sphere, and gets along with a wide variety of people and entities and contributes to the well-being of all beings.

The SŸS is a being that shows great joie de vivre and resilience. It/they is a fully “embodied” being. It/they celebrates its/their body, it perceives very intensely with all its senses and trusts its sensory impressions. Its/their entire body serves as an instrument for perceiving the situations in which it/they finds itself/themself. It/they is fully aware that it/they is a sensitive living system that is undoubtedly embedded in and dependent on other living systems. The SŸS has developed a special sense for living systems and has the impulse, a kind of instinct, to behave benevolently towards all living systems.

*The smell of a mythological being*

Six special odours were composed and curated by MUELLER-DIVJAK for the fifth part of the *Series of Scenographic Studies* **Conception of SŸS: THE SMELL OF A MYTHOLOGICAL BEING \_ Scent installation and voting booth** and accompanied the following request/invitation:

**Imagine a being that knows and feels everything about connectedness and interactions.**

**How would it smell like?**

**Please vote for a scent.**

This installation was shown from February till May 2025 at the AIL and travelled with MUELLER-DIVJAK to multiple conferences and events – including MIT Boston, the SAR Artistic Research Conference in Porto, the Austrian Embassy in Bangkok and the Songkhla Art Centre (TH), among others. Over 2,300 votes were cast, demonstrating active participation from people across the globe. The results revealed significant interest and “sens-ability”, as well as differences in olfactory perception and associations across diverse participant groups regarding SŸS.

The voting results are presented till end of October 2025 in the sixth multisensory installation ‘**SŸS DANCE**’ – the SŸS dance floor – which smells and sounds like SŸS. The scent installation introduces the favourite of the international electorate. Informed by the latest advancements in generative AI, the sound artist collective of the SLS-research-team aka *THE LIVING SYSTEMS* meticulously experiments with the dynamic interplay between human and the machine, interrogating (co-)agency, and expanding arts-based research. The lyrics of the four different tracks are based on poetic interpretations of systems theory and quotes from the Systems Awareness Conference at MIT (2025). The tracks, presented as house and electroclash artefacts in the staged mini club, take up the idea of emerging SŸS beings and explore spaces of (co-)existence.