Personal information/Bio/Academic work/Projects 2019/2020

Susu Nousala (PhD)

Currently a Professor with D&I, Tongji University, Founder of Creative Systemic Research Platform, developing systemic project based learning programs with international partners. Currently, Susu is also a Professor with Wuhan university of Technology (part time), and previously a Senior Research Fellow at Aalto University, Finland. At Aalto, she lectured for the "creative sustainability program" (CS), was a course developer and project coordinator for Aalto LABs (a CS project). She has also been awarded an honorary Research Fellow at GAMUT, Faculty of Architecture, Building and Planning, University of Melbourne, Australia (current). Susu has been visiting professor at Chiang Mai University (Thailand) with the faculty of Management, business administration, and was as a co-founder and codirector of Kororoit Institute (KI) Melbourne, Australia (KI is interdisciplinary research complex and chaotic systems). Susu has been a Research Fellow at RMIT Design and Social Context, managing/researching for National and International research projects. Previous work and training has included art and cultural material conservation practice for various major cultural institutions Australia, England, France, Holland, USA and Singapore. To date she chaired and co-chaired at numerous international symposiums and conferences, is author and co-author for more than 50 refereed journal, conference papers and book chapters. She has received academic and international awards as an invited guest and keynote speaker. She has been successful in working with many multidisciplinary teams (securing funding for National/International projects) in many countries including, Australia, New Zealand, Singapore, Malaysia, Indonesia, Thailand, Laos, Vietnam, India, Hong Kong, Taiwan, China, Finland, Denmark, England, France, Germany, Italy, Spain, Switzerland, North America, Mexico.



Research directions

Three key current research directions are:

Firstly, a focus on the theory of social, complex, adaptive systems and the nexus between the intangible structures (intangible culture/heritage). In practice this work is applied to social innovation and sustainable development, looking at bottom up and top down approaches, their impacts and longitudinal community building.

Secondly, the theory and practice of intangible structures, specifically, the interaction between "parts of a whole" of systems (including top down and bottom up).

Finally, the creative and digital space through emergence, PoP Ups and other bottom up processes.

Representative academic achievements

1. 2012 - 2015 - Research Fellow at Aalto University Helsinki, Finland, Faculty of Arts, Design and Architecture, Arabia Campus.

Educational innovation - New course development, CS Program (Creative Sustainability, School of Arts, Design and Architecture: http://acs.aalto.fi/2013/creating-the-mindset-of-sustainable-societies/

http://acs.aalto.fi/category/cs-experience/?filter=challenging-the-mindset.

2. Australian Research Council (ARC9 funded) Research Project outcomes from University of Melbourne, RMIT 2004 - 2008, book chapters:

Building Innovation Capability In Organizations: An International ...

https://books.google.no/books?isbn=190897933X - Oversett denne siden

Terziovski Mile - 2007 - Business & Economics

I would also like to acknowledge the research team: Dr Isabel Metz, Ms Elizabeth Najdovski, Dr *Susu Nousala* and Mr Ordan Andreevski for their significant contributions...

Examples:

- A) Defence Project Engineering Company. (DPEC), Book Chapter, *Imperial College*. Press, *London* 2007.
- B) B) One company two outcomes | Knowledge integration vs corporate ...

www.emeraldinsight.com/doi/full/10.../03055720911003996?...1 - Oversett denne siden

Susu Nousala (Spatial Information Architecture Lab (SIAL), School of Architecture and Design, RMIT University, Melbourne, Australia) engineering company (DPEC)", in Terziovski, M. (Ed.), Building Innovation Capability in Organizations: An International Cross-Case Perspective, Imperial College Press, London, pp.

3. 2011 - Co-editor for special edition - Journal of Systemics, Cybernetics and Informatics - Collaborative Enterprises Guest Editors: Thomas MARLOWE, Norbert JASTROCH, Susu NOUSALA, and Vassilka KIROVA. Volume 9 - Number 5 - Year 2011

The Journal on Systemics, Cybernetics and Informatics (JSCI) is a peer-reviewed open-access international publication in the areas of Systems Philosophy, System Sciences and Engineering (Systemics), Communication and Control concepts, systems and technologies (Cybernetics,) and Information Systems and Technologies (Informatics), as well as on, and especially on, the relationships among these areas and their applications.

4. Establishment of the Kororoit Institute - Director 2011 and 2013.

Kororoit Institute – Vice President 2012. The Institute is a virtual research network, working in a multidisciplinary capacity for sustainable urban outcomes.

Scientific and technical problems that have been solved:

Creating successful innovative educational platforms that train, develop and transfer from theory into practice (expanding the ontological and epistemology). The theory to practice focused on bottom up and then top down applications, based on emergence from social, complex adaptive systems. This work has been visible through fieldwork, which transfers beyond the classroom. In particular, the application development spans the years between 2003 - 2018.

Actively contributing to the body of knowledge for understanding social complex adaptive systems and intangible structures, which was necessary for understanding and solving practical problems of resilience.

Successfully mapping social complex systems and networks between 2006 - 2018.

Application and transformation of results

- 1. 2008/2010, Application of tacit knowledge networks in practice to map out future direction for an Australian National Industry Association (Steel Housing NASH). This methodology was successfully applied to a national industry network over a period of 24 months from a bottom up approach that mapped the direction for the industry as a whole. This was both a research and commercial application with development of an industry wide process improvement. Polling of 100 members to determine environmental sustainability objectives yielded 80% response rate. Funded by a national innovation program.
- 2. 2014/15 Aalto LAB projects and a subsequent TEKES (Finnish National Funds) co-author, member and senior researcher for country case for "The New Global" collaborative work for International Innovation and Entrepreneurship, awarded 18th Dec 2013 €4.6M. 2014-2015. In practice this work successfully applied a social innovation and sustainable development strategy from bottom up and top down approach, highlighting key impacts and longitudinal community building.
- 3. 2017 Current Lead researcher for the Local Beijaio Government (China), social innovation, research and field project. Funded by (Beijaio government). Application for: in theory social, complex, adaptive systems and the nexus between the intangible structures, in practice this work is applied to social innovation and sustainable development, looking at bottom up and top down approaches, their impacts and longitudinal community building.

Three key research contents and reasons for subject construction.

How do we learn, engage and navigate more effectively through the complexities of life in the 21st Century? My current research focuses on many aspects of this question and could be described as a re-adjustment of previous social complex adaptive research (Nousala 2006; Nousala and Hall 2008; Nousala et al. 2012; Nousala 2012; Nousala et al. 2014; Nousala et a. 2015). Previous research highlighted the importance of the "human attractor", the initiator. The new focus is the initiator or the creative person as a starting point, a necessary precursor for understanding key elements of creative systems theory.

The current focus on learning systems and thinking requires the support of multidisciplinary communication, necessary for understanding society and it's commitment to sustainability (robust) complex systems. The future vision and direction for this work is one that specifically includes creative systemic thinking and application. Possibilities to study in multidisciplinary teams is critical for building the complex inter-linkage of environmental, ecological and social sustainability, that touches us all.

Adapting to holistic thinking requires a fluent approach and continuum in ways of learning within and beyond the complex context of the studies themselves. These types of contextually rich environments require specific preparation, focusing on engagement and experience, producing interesting emerging results that seem to bring the systems thinking approach into practice for all participants and empowering people as active contributors of systemic change. This is the horizontal nature of group course work that produces emergent experiences through multi-layered engagement. It's a focus on living systemic approaches that sparks the creative process. All this supports the complex decision making and individual choices so that participants can find their own ecological niches in the rapidly changing work, urban and environmental ecosystems (Nousala et al. 2019 in press).

Past academic publications and past and current committee work for the academic years of 2014/15 - 2018/19.

Journal and conference papers

- Nousala, S., Dongjin., S, and Aibeo., P., "Dynamic boundaries of action based learning: the longitudinal impact", The Journal of Systemics, Cybernetics and Informatics (JSCI) 2015, vol. 13 issue 5, iiisci.org.
- <u>2.</u> Dongjin Song, Susu Nousala, Yongqi Lou:
 Design Process as Communication Agency for Value Co-Creation in Open Social Innovation Project: A Case Study of QuYang Community in Shanghai. HCl (12) 2015: 361-371
- 3. Nousala, . S., "Time and dynamic boundaries: the impact of action based learning", ISSS 2014 Conference, Learning Across Boundaries: Exploring the Variety of Systemic Theory and Practice, 58th Meeting of the International Society for the Systems Sciences, George Washington University, Washington DC, July 27 August 1, 2014. Proceedings of the 58th Annual Meeting of ISSS, Volume 1, Issue 1, 2015.

- 4. Nousala, . S., "What could future learning structures look like and why would we care? The praxis of complex adaptive systems and learning structures", EMCSR 2014 book of Abstracts, ISSN 2227-7803, EMCSR Civilisation at the Crossroads Response and Responsibility of the Systems Sciences, 2014, 22-25 April, Vienna.
- 5. Nousala. S and Garduno. C., "An applied educational learning concept for "living systems' fieldwork", Proceedings of the 57th Annual Meeting of the ISSS-2014 HaiPhong, Vietnam, Volume 1, Issue 1.
- Garduno C., Nousala., S., "Aalto LAB Mexico, A Knowledge Exchange Experiment in Design Education", 18th World Multi-Conference on Systemics, Cybernetics and Informatics, Orlando, Florida, USA, July 15-18, 2014.
- 6. Ing, David and Nousala Susu (2016) Curriculum making for trito learning: Wayfaring along a meshwork for systems thinking. In: Relating Systems Thinking and Design Symposium (RSD). 13-15 Oct 2016. Toronto, Canada.
- 7. Susu Nousala, David Ing and Peter Jones

Systemic Design, Education and the Design Research Agenda

A report and reflections on a workshop at the RSD5 Symposium, October 2016.

- 7. She Ji. The Journal of Design, Economics, and Innovation. Vol. 2, No 2 2016 "Collaboration and Sociotechnical Systems A question of Context and Framing", commentary.
- 8. Nousala, S., Ing, D., & Jones, P. (2018). Systemic design agendas in education and design reserach, Formakademisk, 2608, 11 (4).

Book Chapters

10. Garduno, C., Nousala, S, and Fuad-Luke, A., "Exploring a poly-disciplinary pedagogy for community wellbeing that evolves through design approaches: Aalto LAB with(in) a Mayan community", Design for Sustainable Well-being and Empowerment,12-14 June 2014, IISc, Bangalore. Book chapter, "Design for Sustainable Well-being and Empowerment: Selected Papers", May 2015. Publishers IISc Press (978-81-925707-1-6) and TU Delft (978-94-6186-345-4).

11. Chantiri, P., Sanchez de la Barquera Estrada, X., Garduno, C., Nousala, S, and Rojas, O., "Aalto LAB Mexico: Co-Designing to maintain Ecosystem Services", Design for Sustainable Well-being and Empowerment, 12-14 June 2014, IISc, Bangalore. Book chapter, "Design for Sustainable Well-being and Empowerment: Selected Papers", May 2015. Publishers IISc Press (978-81-925707-1-6) and TU Delft (978-94-6186-345-4).

12. Garduno, C., Nousala, S., Vertiz, J., Calvillo, G., and Barquera la de Sanchez, X,. "Lessons learned when doing things backwards: The case study of Aalto LAB", Design for Sustainable Well-being and Empowerment, 12-14 June 2014, IISc, Bangalore. Book chapter, "Design for Sustainable Well-being and Empowerment: Selected Papers", May 2015. Publishers IISc Press (978-81-925707-1-6) and TU Delft (978-94-6186-345-4).

International Journal Work

Sustainability, International Journal | Special Issues - MDPI www.mdpi.com/journal/sustainability/special_issues

Editors: Jing Wu, **Susu** H. **Nousala**, Xingkuan Wu, Gang Wang - Smart Cities and Urban Design.

Susu Nousala, Editorial Board and Associate Editor-in-Chief for Art and Design-ITS, Open Access Publishers.

Susu Nousala, Editorial Board of Journal of Cybernetics and Informatics (JSCI), International Institute of Informatics and Cybernetics, IIIC. (www.iiisci.org/journal/sci).

Board member of Relating Systems Thinking and Design (RSD8) International committee.

Review work past and current

WMSCI-KCST 2014 July Orlando USA - current

WMSCI - SOIC USA; proceedings 2010, 2011 - current

WMSCI - KGCM USA, proceedings 2010, 2011, 2012, 2013, 2014, 2015 - current

WMSCI- ISPR USA, proceedings 2010, 2011 - current

KMRP, international journal regular reviewer, 2011 - current

VINE Journal of Information and Knowledge Management Systems - Current

Key notes and invited sessions

Marlowe, Thomas, Seton Hall University, USA, and Nousala, Susu, Aalto University, Finland, Plenary Workshop, "Building Working Communities: Exploration, Collaboration & Creativity, 18th World Multi-Conference on Systemics, Cybernetics and Informatics: WMSCI 2014, Plenary Workshop, Orlando Florida USA; 15-18.

Nousala, Susu, "Art of Systemic Learning", 2017, STEAM Education, Design Week, D&I, Tongji, Shanghai, China.

Nousala, Susu., "Systemic Learning", 2018 International Conference on Smart Cities and Urban Design, 10-11th February, Wuhan, China.

Nousala, Susu., "The Art of Systemic Learning: and other mysterious dynamics", The 4th Wisdom from Hinterland China International Symposium on Rural Design and Humanistic Remolding in the New Era and the Doctoral Forum on Sustainable Design and Quality Development", Chongqing, China, 14th - 16th, 2018.

Nousala, Susu., "Systems and Education", International Conference on Landscape Ecology and Urban Sustainability, Hhot, Inner Mongolia, China, 12-13th January, 2019.

PhD and Masters teaching and supervision work

PhD quantitative methodology course for D&I, Tongji - 2016, 2017, 2018, 2019/2020.

Currently supervisor or on committee for students at D&I, Tongji, Helsinki University Finland, Unicamp Brazil, Politecnio Milano (recently defended and passed February 2019), Politecnico Torino. Wuhan University of Technology past and present masters and one PhD - 2014/15 to 2017/18, 2019/2020.

Selected Current Work Projects

Head of Creative Systemic Research Platform: research events, symposiums and public lectures - D&I 2016 - 2019/2020 (Book launches, Club of Rome discussion on Sustainability, Systemic learning processes).

Gamification workshop series for Design Week Beijing, Shanghai and Wuhan (2018, 2019/2020).

Recent EU funding awarded for joint PoP up social systems project with Helsinki/Shanghai based World Music School program, 2019/2020.

Partner project with EU funded Barcelona/Shanghai project with creative, systemic food and wellbeing project, 2019/2020.

On-going research work for next round of 2019 international journal publication (current submission, Journal - Paper 308751, From Field - work to an Ontological Model: Investigating Adaptive Systems and Resilience Dynamics in the living Complex Peri-Urban. Due 2019.

2019 - three international experts approved funding by Tongji to continue journal publication and research project work.

Beijiao Regional Innovation Platform Project - (2017-2018 480,000.00 rmb project), Lead Project Researcher - Susu Nousala

A summary of material submitted:

- * Main film "A Sense of Belonging"
- * Several examples of workshop development film processes created during analysis period, from Wuhan during 2017 and 2018.
- * Survey material examples (from the field analysis, please note that a summary of the recordings from the field have been analysed and selected for the film "A sense of belonging"
 - * Workshop material examples PPTs
 - * example of letters of agreement (current)

Description: Summary of the Beijiao Project Final Report 2018.

北滘项目2018年总结报告

Introduction介绍

This is the final report for the Beijiao Regional Innovation Platform project. We have presented our final outcomes for the 2017/18 project in a half day conference on Nov. 29. 2018, held at the cultural centre in Beijiao. Approximately 50 people were present from the project related governmental agencies and institutions to witness the presentation from the project team.

Those conducting the final presentation were led by Tongji prof. Susu/Cheng Yi Heng, Tongji-Huangpu High School Project Manager Wu Yuan Qi, and Wuhan student Chen Jing and Guangzhou young design professional Zheng Yong Tao.

我们是由 同济大学教授SuSu/程一恒,同济一黄浦高中项目主任吴元琦,武汉理工大学硕士陈婧以及来自广州的独立设计师郑勇涛组成的团队,于2017年11月29日在北滘文化中心报告厅,向大约50名来自与本报告有关的乡镇以及机构组织代表,做了北滘区域性创新平台项目的总结报告。

Process过程

The past work was presented through PPT and film. The over all project outcome was explained as a longitudinal process in line with the longer term need of understanding in more depth, what were the underlying issues, thinking, feelings and experiences of the design trained youth in the region.

我们工作的结果以 PPT及视频短片的方式呈现。整个项目成果,是为了了解该地区所培养的设计青年才俊的需求,这需要经过一个较长的横向时间轴,更深层次的追究其内涵、思维想法、感知和经验。

The scope of the project needed to provide the research that utilized design and system approaches but also qualitative and quantitative methodologies processes that would high light some hidden knowledge of what has happened, what is currently happening and what steps could be taken in the future.

项目的规模是以设计和系统思维来规划研究的;以量化和质化的方法来披露并学习已经发生、正在发生,和未来需要采取的步骤所产生的深层认知。

The final presentations showed that importance of the eco-system building that

have included many different people from a range of organisations. The network building and experiences included the different networks from Shanghai, Wuhan, Guangzhou and Beijiao in China and Toronto, Helsinki, Barcelona, Torino, Singapore, etc. internationally (including different universities, organisations, SMEs, student groups from undergraduate to PhDs and post docs, and international organisations).

我们的报告指出,需要建立一个涵盖不同组织设计专业人群的生态系统的重要性。也就是要形成一个包括中国的上海、武汉、广州 和北滘,以及多伦多、赫尔辛基、巴塞隆纳、都灵、新加坡等 (包括来自各大学、研究机构、中小企业、国际组织等的交换学生、硕博士生、博士后)的国际性网络。

The way in which these networks were built were done so relatively quickly between 2017-2018 and were able to absorb many different levels of experience. The time lines that were shown and discussed during the final presentation, showed approximately over 200 people to date. These people in the extended eco-system had contributed to the research to develop the understanding the baseline of the current situation of the youth and related topics in the Beijiao region. These efforts add the extra value through their collective experiences beyond the individual.

我们在2017-18年很快的形成了这样的网络,并且将各个层级的认知纳入。 到本项目的时间截止前所牵涉的已经超过 200 人。 这些人员在广义的生态系统里对本项目研究的主体一北滘的设计青年才俊提供了现状的基础了解和广泛的认知。这些,为这个项目添加了在个人之外 的集体认知。

The importance of these particular project experience outcomes, were discussed at the meeting of the Nov, 29th, 2018, revealing how these actions were the building blocks for future, coherent international networks that went well beyond stand alone events.

The importance of building from a neutral hub where all people and members of the Beijiao region was stressed.

在29日的会议里,我们呈现了建立面向未来的基石组合,同协的国际 网络,这些行动的认知总和,将会远远超出个别单独活动所能取得的

短暂效果。同时也再度显现了需要选定在北滘的一个固定的地点,作 为国际人员和当地人员长期互动的平台。