

OUR PRECIOUS RESOURCES

PATHWAYS TO A SECURE AND SUSTAINABLE FUTURE

HUMBOLDT RESIDENCY PROGRAMME
COHORT 2023



HUMBOLDT RESIDENCY PROGRAMME

The numerous global challenges facing us today – such as climate change – clearly demonstrate the need for international and transdisciplinary cooperation in the search for answers and for increased social impact of scientifically generated knowledge.

Every year, the Humboldt Residency Programme brings together a transdisciplinary group of researchers, journalists, artists, and social entrepreneurs to work on a common topic during a six-week residency in Berlin/Brandenburg. It reinforces innovation by transdisciplinary cooperation beyond the boundaries of science. Exploring innovative forms of science communication, the programme aims to share the group's results with selected target audiences in order to generate tangible new impetus in academia, politics, and society.

It is our great pleasure to cooperate with the Climate Change Center Berlin-Brandenburg and the Cultural Foundation Schloss Wiepersdorf in realising the 2023 Humboldt Residency Programme.

[PROJECT WEBSITE](#)

[FIND OUT MORE ABOUT THE
HUMBOLDT RESIDENCY PROGRAMME](#)

OUR PRECIOUS RESSOURCES PATHWAYS TO A SECURE AND SUSTAINABLE FUTURE

The question of resources is fundamental to the human understanding of the world. Our identity as a human race today is contingent on the way we relate to resources, the way we interact with them, and reshape them to create ideas and the material world we live in.

Meanwhile, anthropogenic climate change has long become a part of our reality. It poses perhaps the biggest challenge humankind has faced in the recent past. The threat of climate change and major transformations that must lie ahead question our current relationship with nature and resources. It is a truly global challenge that demands not only urgent, but also just, action.

By exploring the interface of global ecological urgency, political volatility, and societal conditions the Humboldt Residency Programme 2023 aims to foster a broadly-based conversation between stakeholders in science and beyond, designed to highlight new concepts or discover some clues to a better future.

PRATYUSH SHANKAR (HOST)

PROFESSOR (ARCHITECTURE),
PROVOST NAVRACHANA UNIVERSITY

Pratyush Shankar is an academic and Provost of Navrachana University where he is Dean of the School of Environmental Design and Architecture. He also runs a design practice. His work focuses on Urban History, Nature-City Relationship, South Asian Urbanism, and Traditional Knowledge Systems. He has longstanding teaching experience on Urban History and Design. Pratyush is currently also a visiting professor in the Mundus Urbano Programme at the Faculty of Architecture at TU Darmstadt University, Germany. He was awarded an Alexander von Humboldt Fellowship in 2015 and was hosted by the University of Bonn, Germany. Pratyush was previously Acting Dean of Architecture and head of the Undergraduate Programme at CEPT University, Ahmedabad, India. His forthcoming publication, History of Urban Form: India, will be published by Oxford University Press.



PUBLICATIONS

- **History of Urban Form: India; From beginning to 1900s** (Oxford University Press, Upcoming in 2023)
- **Himalayan Cities: Settlement Patterns, Public Places and Architecture** (Niyogi Books, 2014)
- **Interpreting public space in the Jaina Basadis of Moodabidri** (Eloquent Spaces: Meaning and Community in Early Indian Architecture, Routledge, 2019)

[HTTPS://PRATYUSH SHANKAR.COM/](https://pratyushshankar.com/)

FIND OUT MORE ABOUT PRATYUSH SHANKAR

EVELYN DE OLIVEIRA ARARIPE

DOCTORAL CANDIDATE (GREEN
CHEMISTRY), ENVIRONMENTAL
EDUCATOR

Evelyn Araripe is a PhD Candidate in the Green Chemistry, Sustainability and Education Research Group (GPQV) at the Federal University of São Carlos (UFSCar, Brazil) as well as a visiting lecturer and researcher at Leuphana University Lüneburg, Germany. Here she works on designing case studies to introduce topics of sustainability and climate change into Chemistry curricula. Evelyn is an environmental educator with expertise in climate education for youth in international projects. She has founded two youth and children-led organisations that support the engagement of young people in nature conservation and climate protection. She works as a consultant in projects related to education for sustainability and climate education in Europe and Latin America.



PUBLICATIONS

- **Alternative Products Selling Sustainability? A Brazilian Case Study on Materials and Processes to Produce Plant-Based Hamburger Patties** (Sustainable Chemistry, 2022, 3)
- **Plasticized childhood: the impact of plastic toy advertisement on children's health and the environment** (Instituto Alana. São Paulo. July 2020)

PROJECTS

- **Plant-for-the-Planet**, Germany
- **Youth Climate Leaders (YCL)**, Brazil



FIND OUT MORE ABOUT
EVELYN DE OLIVEIRA ARARIPE

SANTOS DANIEL CHICAS

**ASSISTANT PROFESSOR (FOREST
MANAGEMENT)**

Santos Chicas is an Assistant Professor in the Department of Agro-environmental Science at Kyushu University, Japan. He received an Alexander von Humboldt Fellowship at the Integrative Research Institute on Transformations of Human-Environment Systems at Humboldt-Universität zu Berlin, Germany, in 2021 and conducted research on wildfire vulnerability in the Maya Mountain Massif in Belize. His research focuses on implementing remote sensing, machine learning algorithms, and social science methods to address environmental problems such as deforestation, wildfires, land use change, erosion, ecosystem degradation, and climate change. Previously, Santos worked at the University of Belize on the Natural Resource Management Programme at the Faculty of Science and Technology. He completed his PhD in Civil and Environmental Engineering at Nagasaki University, Japan in 2017.



PUBLICATIONS

- **Who are Actors and what are the Factors that are Used in Models to Map Forest Fire Susceptibility? A Systematic Review** (Natural Hazards 144, Springer, 2022)
- **Modelling Wildfire Susceptibility in Belize's Ecosystems and Protected Areas Using Machine Learning and Knowledge-Based Methods** (Geocarto International, 37:27, 2022)
- **Using spatial metrics and surveys for the assessment of trans-boundary deforestation in protected areas of the Maya Mountain Massif: Belize-Guatemala border** (Journal of Environmental Management, 187, 2017)

MAGDALENA HART ARTIST

Magdalena Hart is a critical artist and interactive installation designer from the UK/Uruguay. She uses technology as a means to reconnect the human experience with the natural environment, integrating nature into the digital age. In 2018, she co-founded the Barcelona based artistic duo Akyute around a collective vision, in which interaction is organic and very much alive, humanity is sentient and communication among species is fluid, challenging the way people experience living ecosystems. Together the duo seeks to expand environmental awareness through art, design, technology, and speculative imagination. Magdalena holds a Master's degree in Audiovisual Innovation and Interactive Environments from the Centre Universitari d'Arts I Disseny de Barcelona.



PROJECTS

- Solo Exhibition: **Fluid Interfaces, ImaginCafe** (Barcelona, 2023)
- **Time, Force and Space**, Performance Supported by Fonds "Darstellende Künste" and NEUSTART KULTUR (2023)
- **Live A/V Performance**, Sónar Festival (Barcelona, 2022)



FIND OUT MORE ABOUT
MAGDALENA HART

ANTONIA KREFELD-SCHWALB

ASSISTANT PROFESSOR (MARKETING)

Antonia Krefeld-Schwalb is an Assistant Professor at the Rotterdam School of Management, Erasmus University. She is a consumer researcher with a background in cognitive psychology. Over the course of her career, she has worked on understanding and predicting consumer preferences in method-focused research projects. More recently, Antonia used this knowledge to understand why behavioural interventions to motivate sustainable behaviour do not work the same on everyone. In large ongoing research projects, she studies how interventions towards more sustainable behaviour (e.g., consuming less meat, using sustainable transportation, and reducing energy consumption) can be personalised to increase their effectiveness. Antonia was previously a Postdoctoral Fellow in Marketing at Columbia University, New York, United States, and holds PhD titles in Management from the University of Geneva and the University of Bern in Switzerland.



PUBLICATIONS

- **Empowering a Sustainable Future: Fostering Sustainable Behavior with Targeted Interventions** (PsyArXiv Pre-prints, 02/2023)
- **The More You Ask, the Less You Get: When Additional Questions Hurt External Validity** (Journal of Marketing Research, 59(5), 2022)
- **Structural Parameter Interdependencies in Computational Models of Cognition** (Psychological Review, 129(2), 2022)



@ANTONIAKREFELD

FIND OUT MORE ABOUT
ANTONIA KREFELD-SCHWALB

LOU ZIYANG

PROFESSOR (ENVIRONMENTAL SCIENCE AND ENGINEERING)

Lou Ziyang is a Programme Professor at the China Institute for Urban Governance on Waste Management at Shanghai Jiao Tong University, Shanghai, China. Ziyang's research interest focuses on Municipal Solid Waste (MSW), particularly landfills. He investigates the impact of MSW on city safety operations and has developed simulations of odour emission from waste disposal processes, emissions estimations from landfills and potential mitigation methods, landfill stabilisation processes, and secondary pollution control. He has vast teaching experience in the fields of environmental and sustainable development, solid waste treatment, and hazardous waste control and management. Ziyang was previously the Deputy Director of the Planning Department at the Shanghai Environmental Protection Bureau. He was awarded an International Climate Protection Fellowship by the Alexander von Humboldt Foundation for a research stay at TU Dresden University in 2010.



PUBLICATIONS

- **Medium-Low Temperature Conditions Induce the Formation of Environmentally Persistent Free Radicals in Microplastics with Conjugated Aromatic-Ring Structures during Sewage Sludge Pyrolysis** (Environmental Science & Technology, 56, 22, 2022)
- **Booming microplastics generation in landfill: an exponential evolution process under temporal pattern** (Water Research, 223, 2022)
- **CH₄ mitigation potentials from China landfills and related environmental co-benefits** (Science Advances, 4, 7, 2018)

LUCY OMBAKA LECTURER (CHEMISTRY)

Lucy Ombaka lectures Inorganic chemistry at the Technical University of Kenya and concurrently runs a research laboratory focusing on inexpensive electrocatalysts for power-to-X (PtX) systems. She is a promoter of green hydrogen and PtX systems who is looking into building bridges between scientific innovations, technology, and community development. As an Alexander von Humboldt post-doctoral fellow in Germany, she researched renewable energy with a focus on the production of green hydrogen. Prior, she earned her doctoral degree from the University of KwaZulu Natal, South Africa and her Master's degree in Chemistry from Egerton University, Kenya. Lucy is experienced in training green hydrogen and other PtX modules, energy efficiency, and science communication. Thus, she brings on board innovative ideas and approaches towards sustainable future energy resources.



PUBLICATIONS

- **Photocatalytic H₂ production and degradation of aqueous 2-chlorophenol over B/N-graphene-coated Cu₀ /TiO₂: A DFT, experimental and mechanistic investigation** (Journal of Environmental Management, 311, 2022)
- **Multi-dimensional applications of graphitic carbon nitride nanomaterials – A review** (Journal of Molecular Liquids, 344, 2021)
- **Nitrogen/Carbon-Coated Zero-Valent Copper as Highly Efficient Co-catalysts for TiO₂ Applied in Photocatalytic and Photoelectrocatalytic Hydrogen Production** (ACS Applied Materials and Interfaces, 12, 27, 2020)



FIND OUT MORE ABOUT
LUCY OMBKA

HLENGIWE RADEBE

CIVIL SOCIETY AND YOUTH ENGAGE- MENT OFFICER

Hlengiwe Radebe is a Civil Society and Youth Engagement Officer at WWF South Africa. She is the Chairperson of the Climate Action Network South Africa's board of directors and a board advisor at Mukuru Clean Stoves. She has over eight years of experience working on the human dimensions of sustainable energy access, energy poverty, climate change, gender, and capacity building. She has worked extensively in South Africa and other African countries on projects addressing urban energy, equitable and inclusive low carbon development, climate change mitigation, and gender mainstreaming. She is specifically versed in project management and coordination, research to improve and strengthen policy and enabling environments, as well as programme design and strategy development for government and donors partners. She completed her Master's degree in Interdisciplinary Global Change Studies at the University of the Witwatersrand in 2016.



PUBLICATIONS

- **Transformative resilience as the centerpiece of a Just Transition** (Presidential Climate Commission Expert Essay Book: Supporting a Just and Climate-Resilient Transition in South Africa, 2022)
- **Net Zero by 2050. Why the goal and how to achieve it?** (Policy Brief, Climate Ambition to Accountability Project, 2022)
- **Is the South African Climate Change Bill responsive to adaptation needs?** (Climate Ambition to Accountability Project & Institute for Economic Justice, 2022)
- **Building capacities for net-zero emissions: Lessons ranging from South Africa to Asia** (Colaba Edit, Observer Research Foundation, 2021)



FIND OUT MORE ABOUT
HLENGIWE RADEBE

CHRISTOPHER SCHRADER JOURNALIST

Christopher Schrader has been a freelance journalist specialising in climate research since 2015. He has a particular interest in perspectives taken from social and communications sciences on the climate debate which he considers an overlooked key component of a necessary transformation: adopting approaches that are more impactful than recounting facts to influence people to change deeply embedded behavioural patterns. In pursuit of this goal, he published the open access handbook Über Klima sprechen (Talking about Climate) in 2022. He has also branched out into education, giving talks and workshops on climate communication. Christopher is a physicist and journalist by training, graduating from the Henri Nannen School of Journalism, Hamburg, Germany, in 1991. He previously worked as an editor for several papers, including Geo-Wissen and Facts (Zurich, Switzerland) and the daily newspaper Süddeutsche Zeitung (Munich and Berlin).



PUBLICATION

- Über Klima sprechen – Das Handbuch
**(Talking about Climate – A Hand-
book)**, (Oekom-Verlag, 2022)



FIND OUT MORE ABOUT
CHRISTOPHER SCHRADER

STEPHEN WORONIECKI

PROFESSOR (SOCIOLOGY)

Stephen Woroniecki is an Assistant Professor in the Environmental Change Unit of the Department of Thematic Studies at Linköping University in Sweden as well as a researcher with Oxford University's Nature-based Solutions Initiative. He is interested in the social and natural dimensions of sustainability challenges, especially climate change and biodiversity loss. In his research Stephen looks at the potential of nature-based solutions to address sustainability challenges in an integrated way. This includes participatory, sociological, sense-making, and phenomenological approaches. He has also worked on the science of loss and damage, the social science of biodiversity, knowledge pluralism and justice, and transformations towards sustainability. As part of his research, Stephen has done fieldwork in Mexico, Peru, Tanzania, Kenya, Sri Lanka, Nepal, and Fiji. He earned his doctoral degree in Sustainability Science at Lund University.



PUBLICATIONS

- **Contributions of nature-based solutions to reducing people's vulnerabilities to climate change across the rural Global South** (Climate and Development, 2022)
- **Nature unsettled: How knowledge and power shape 'nature-based' approaches to societal challenges.** (Global Environmental Change, 65, 2020)
- **Confronting the ecology of crisis: The interlinked roles of ecosystem-based adaptation and empowerment** (Doctoral Thesis (compilation), Lund University Centre for Sustainability Studies, 2020)



FIND OUT MORE ABOUT
STEPHEN WORONIECKI

OUR PARTNERS



CLIMATE CHANGE CENTER
Berlin Brandenburg

SCHLOSS WIEPERSDORF
KULTURSTIFTUNG

CONTACT INFORMATION:

**FOR FURTHER INFORMATION ON THE
PROGRAMME:**
RESIDENCY@AVH.DE

FOR PRESS INQUIRIES:
PRESSE@AVH.DE

FINANCED BY



Federal Foreign Office

BERLIN



Senatsverwaltung
für Wissenschaft,
Gesundheit und Pflege

ALEXANDER VON HUMBOLDT FOUNDATION
MARKGRAFENSTR. 37
10117 BERLIN
WWW.HUMBOLDT-FOUNDATION.DE

HUMBOLDT RESIDENCY PROGRAMME
COHORT 2023



**HUMBOLDT
RESIDENCY
PROGRAMME**