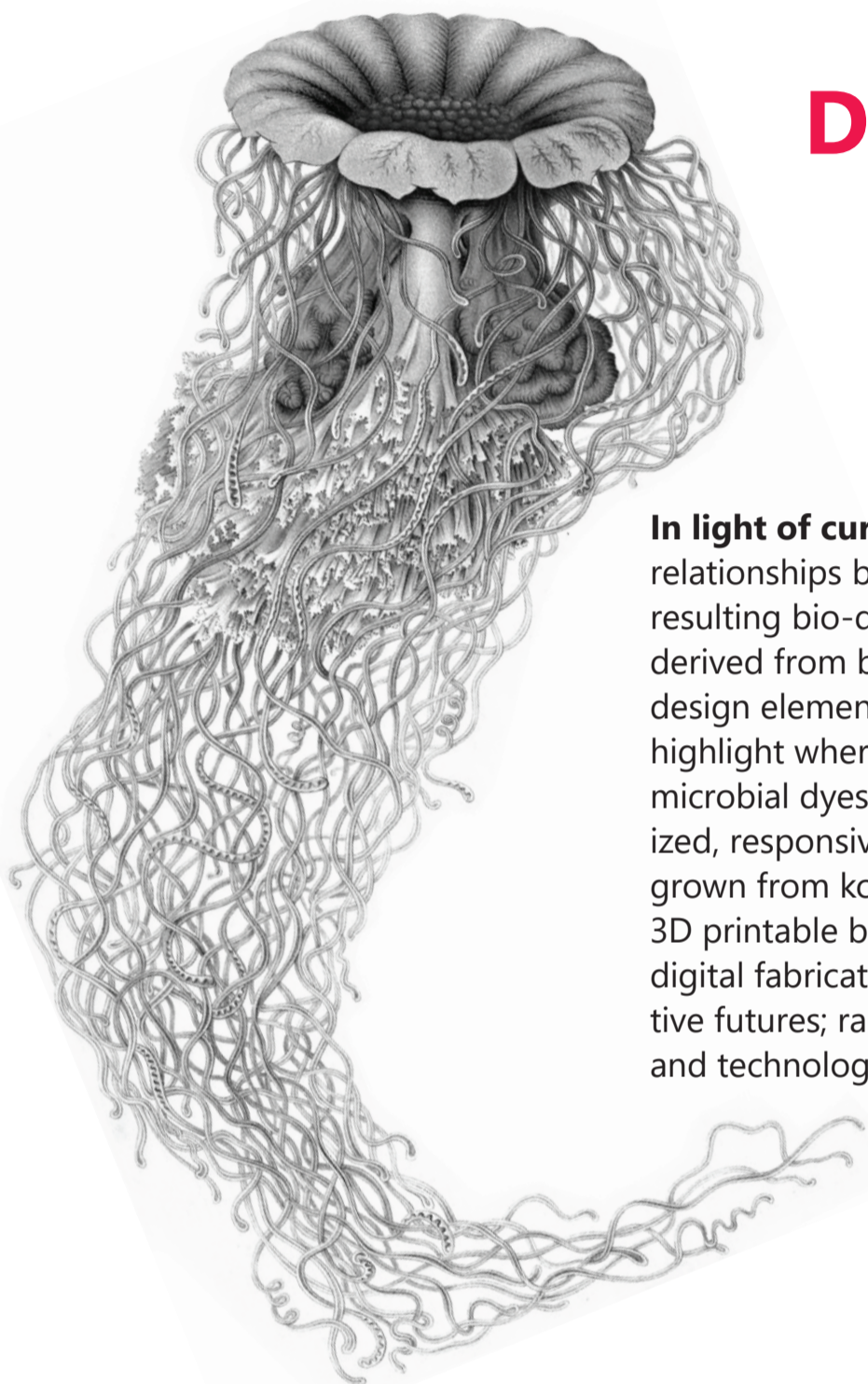


Fiona Bell

University of Maryland, Baltimore, US

Entangled Ecologies: Designing Regenerative Bio-Digital Futures



In light of current environmental crises, my work aims to build deeper relationships between humans, computers, and biological systems. The resulting bio-digital technologies integrate biomaterials—grown and derived from biological sources that degrade naturally—as functional design elements. I will discuss several biomaterials that I work with, to highlight where bio-digital technologies can grow in the future, including: microbial dyes derived from my microbiome that I implement as personalized, responsive, living interfaces; symbiotic cultures of bacteria and yeast grown from kombucha for biodegradable electronics and wearables; and 3D printable bio-pastes made from local eggshell waste, developed for digital fabrication. I also present my broader vision for designing regenerative futures; radically sustainable futures in which ecological, sociocultural, and technological systems deeply entangle to foster planetary flourishing.

Fiona Bell is an Assistant Professor of Human-Centered Computing at the University of Maryland, Baltimore County, directing the Entangled Ecologies Lab. Merging HCI, materials science, and biodesign, she develops biomaterials that integrate with digital technologies to create sustainable and responsive bio-digital interfaces for regenerative futures. Fiona is an Expert Consultant for the international Biodesign Challenge and disseminates her work through art exhibitions and community workshops. She was a Postdoc fellow in Computer Science at the University of New Mexico, has a PhD in Creative Technology and Design from the ATLAS Institute (University of Colorado Boulder), and a BS in Mechanical Engineering.

May 26, 2026

19:00 h
Seminar Room A
Bauhausstr. 11

Professorship for
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Bauhaus-Universität Weimar
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