Mentor's Introduction to Ahu Yolac

Laura J. Hetrick

University of Illinois,
Urbana-Champaign, IL

It is with great pleasure that I introduce you to the innovative game design work of the transdisciplinary scholar, Ahu Yolac. Ahu came to the field of Art Education after successfully navigating her way through the fields of Interior Architecture and Environmental Design and Industrial Design. Her own love of playing video games since childhood and her disciplinary multiplicity are both the impetus and the scaffolding for this monumental research project. One of her foundational thoughts inspiring this study, in her own words, is that "even if a game isn't labeled as educational, it might still teach. Between the games that claim [to accomplish] a lot and the games that only offer fun, selecting and delivering the right content requires criticality and expertise from educators and/or designers". This is where Ahu, as both an educator and a designer, situates her expert subject position. It should be noted that while students, teachers and parents have access to countless games, many labeled as "educational," contributing relevant research to the area is significant for helping designers and artists, in addition to the consumers of their work.

As briefly alluded to, Ahu's research project brings multiple disciplines together both at the levels of research design and execution. The video game that Ahu designed from scratch and specifically for this project, entitled

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Hexostasis, serves as a research tool and an important subject of her research inquiry. While she explores game design from the perspective of an art educator and designer, she also creates a new way of teaching skills by fusing disciplinary practices. She acknowledges the multidisciplinary nature of design and art education, and creates a transdisciplinary informal learning environment that brings together practices from computer science, and art and design education. While developing her puzzle game, she conducted a

Design Based Research (DBR) project. As a part of DBR practices, she created multiple iterations of her game that required several studies, user tests, and constantly improved versions of her game. In addition, the game was continually maintained and progressed in collaboration with others, such as programmers, musicians, and participants as a part of the research process.

The unique way Ahu approached the game design allowed her to guide and direct players to use elements such as decomposition and abstraction from computational thinking strategies to help participants' thinking about the problem from a multidisciplinary level. Additionally, through the complex yet user-friendly storyline of environmental sustainability populated with inhabitants in different terrains, she evoked criticality as an approach for problem solving that covertly embedded questions of ethics and care. After building Hexostasis, Ahu also tested the game's efficiency and how its players experienced the game at both personal and user levels. This included players' recorded takeaways from the game and how their experiences reflected their overall understandings of the concepts that she intentionally constructed. Utilizing both qualitative and quantitative methods of data gathering and analysis, Ahu was able to construct a holistic perspective of game design, transdisciplinary problem solving, and games as non-formal learning spaces and educational tools. In short, this study is a must read for game designers, game players, (arts) educators and anyone else interested in a truly transdisciplinary approach to doctoral research studies.