WRIT 105CD Multimodal Presentation Author's Note

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Introduction

Our game, *Priceless*, is a city-builder game that explores the relationship between environmental policy and economic benefit. This author's note elaborates on the issue we engage with and the narrative choices that advance our rhetoric regarding the issue.

1 Exigence

Environmentally-conscious decision making is important, complex, and value-laden. The ongoing climate crisis is just about as exigent as circumstances can be, and yet, responding to the crisis is incredibly difficult.

As some other groups noted, many decision-makers do not even publicly believe in climate change, and others still are happy to be complacent to patently wrongful actions. Even among those that are well-intentioned and relatively like-minded, there is little consensus about how to respond to difficult environmental questions. It is hard to define responsibilities and resolve trade-offs in this huge issue that touches nearly every person and aspect of life. The experts of different disciplines approach environmental issues

while holding different values, and make radically different recommendations as a result.

Two works: *Balancing on a Planet*, by Prof. David Cleveland (a research professor emeritus at UCSB) and *Priceless: On Knowing the Price of Everything and the Value of Nothing*, by Frank Ackerman and Lisa Heinzerling, explore environmental issues, ways to address them, and the values we should hold when responding to climate change. Specifically, these writers criticize the discipline of economics for approaching environmental issues with a set of values and tools that are inappropriate to deal with values that are beyond price.

Prof. Cleveland describes the fact-value distinction as "...the ability to distinguish between how the world is and how we would like it to be."[1] According to Cleveland's analysis of environmental literature in economics, sociology, and the environmental sciences, "we are usually unaware of how our value assumptions about how the world should work influence our empirical assumptions about how the world actually does work."[2] Cleveland argues that we should examine our values and seek to keep them apart from empirical questions of science.

On Cleveland's view, economic analysis makes several value-lade assumptions that combine facts about the world (that can be proven) and values (that are ultimately revisable and debatable). Specifically, he finds that economists want to collapse all values onto a common scale: monetary price. This measurement best lends itself to the kind of cost/benefit analysis that economists can perform. Economists also assume that most resources are replaceable, and that new technology can always improve efficiency and resource output. Together, these assumptions translate into policy that is focused on producing more, but doing so 'sustainably,' using less inputs. At its core, the economic analysis does not question the core goal of maximizing material wealth.[3]

Ackerman and Heinzerling concur with Cleveland:

1. David Cleveland, *Balancing on a Planet* (2014), 5.
2. Cleveland, 5.
3. Cleveland, 105.

> "The basic problem with narrow economic analysis of health and environmental protection is that human life, health, and nature cannot be described meaningfully in monetary terms; they are priceless."[4]

They both go further, arguing that economists use cost-benefit analysis to cloak their work in a veneer of objectivity. "By proceeding as if its assumptions are scientific and by speaking a language all its own, economic analysis too easily conceals the basic human questions that lie at its heart and excludes the voices of people untrained in the field."[5]

Policy decisions (often made by economists) and the general public zeitgeist continue to embrace the economic mindset of continually expanding material wealth while attempting to reduce some of the environmental consequences on the back end.

To be clear here, both works recognize that many people continue to suffer through poverty and a lack of social and material resources. The aim of these works is not to advocate for all pursuit of material value, like resources that would help people in need. Rather, a part of the aim of these works is to stimulate reflection on why material value is valuable (exactly because it can alleviate suffering) and to remember that is a mere means to more important ends rather than an end in itself. This stands in contrast with the economics perspective which seeks to maximize material value alone without always connecting it to its underlying moral purposes.

While Cleveland and Ackerman & Heinzerling focus on different empirical issues, one of the themes running through both works is that we cannot consume or optimize our way out of environmental harms. Preserving that which we truly value may mean sacrificing measurable, material goods.

4. Lisa Heinzerling and Frank Ackermann, *Priceless: On Knowing the Price of Everything and the Value of Nothing* (2011).

5. Heinzerling and Ackermann, 9.

2 Artifact

Our artifact seeks to explore this theme — the sacrifice of measurable, material goods in favor of securing true value. In John Ferrara's "Games for Persuasion," Ferrara articulates how games can be used as an effective persuasive tool. "If you make the core message into the secret of winning, then you will drive people efficiently toward that conclusion."[6]

This creates an interesting little paradox when applied to the exigence we have chosen. The primary themes that we draw upon from Cleveland and Heinzerling & Ackerman is that environmental values cannot and should not be priced. Creating a game which rewards the player by a certain amount for 'protecting the environment' undermines the very message that we seek to communicate. The difficulty with making good environmental policy is that the environment (and other moral values, like human lives) are unmeasurable, invaluable goods that cannot be traded off or exchanged. Protecting the environment is unrewarding work that is more likely to entail sacrifice than distinction.

Instead, our game encodes its message of reflection on environmental values into the aim of the game itself. We do employ Ferrara's recommendation that game elements that are intended to be communicative about real-life matters should bear sufficient resemblance to the real-life matters so that the knowledge can transfer from the game into life. To this end, as in real life, economic value is represented by an easily measurable apparent goal. Increasing a player's 'city level' nets them apparent rewards, an expanded city, and more exciting art.

As in the world, acquiring great material benefit requires damage to the environment surrounding the player. This damage is visually represented by the change of the tiles from verdant forest, mountain, and lake textures to barren, dry and depleted land. As in the world, there is no apparent, measurable benefit gained by preserving these resources.

6. John Ferrara, "Games for Persuasion: Argumentation, Procedurality, and the Lie of Gamification," *Games and Culture* 8 (4 2013): 299.

It continues to be the case that it is simply the right thing to do.

3 Conclusion and Future Work

We hope that the design of the game and the map's visual transformation from lush to lacking will cause the player to question their conceptions about the true aim of the game, and whether the development of their city was 'worth it.'

The visual art of this game forms an important part of its communicative element. The persuasive impact will be much greater if the game's starting condition is truly visually appealing and rewards the user merely for being still and appreciating it — for example, hearing a bird chirp if one watches a tree for a few minutes.

The current art likely fails to create the necessary aesthetic and emotional connection for the game to carry out its intended persuasive effect to the extent possible.