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Katerina Zacharia

Loyola Marymount University, kzacharia@lmu.edu

Marientina Gotsis

University of Southern California

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European program HORIZON 2020 - VAST VALUES ACROSS SPACE AND TIME

INTERNATIONAL THEATRE CONFERENCE

Online, 6-7 November 2021

Conference Proceedings



Athens 2022

Editor: Alexia Papakosta

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European program HORIZON 2020 -VAST

VALUES ACROSS SPACE AND TIME

NATIONAL AND KAPODISTRIAN UNIVERSITY OF ATHENS

Conference title: Values of Ancient Greek Theatre Across Space & Time: Cultural Heritage and Memory

Conference and Program Leader:

Theodore Grammatas, Emeritus Professor NKUA

Year of publishing: 2022

ISBN: 978-960-466-274-6

Editor: Alexia Papakosta,

PhD, Laborator Teaching Staff

Department of Primary Education

National and Kapodistrian University of Athens

Publisher: National and Kapodistrian University of Athens

ACKNOWLEDGEMENTS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101004949. This document reflects only the author's view and the European Commission is not responsible for any use that may be made of the information it contains.

Ancient drama applications in education and interactive entertainment

Katerina Zacharia

Professor of Classics, Chair of Classics & Archaeology, Loyola Marymount University, Los Angeles
kzacharia@lmu.edu

Marientina Gotsis

Professor of Practice of Interactive Media & Games, School of Cinematic Arts, University of Southern California
gotsis@usc.edu

Introduction

This paper is the result of the co-authors' transdisciplinary collaboration and practice (est. 2018) through which we sought to “answer questions that exist across multiple disciplines but apply the answers to [our] own fields.” (Holley, 2009: 25). We have embedded ourselves in each other's classrooms, developed joint learning experiences, immersed ourselves in each other's scholarship, and created new and original works together. Framing our collaboration and situating our work within the collective history of intersection between interactive entertainment and Ancient Greek drama has presented us with opportunities to learn and experiment with active learning methodologies, a process that has, in turn, transformed us as scholars-teachers and expanded our creative minds. This paper serves as a disciplinary boundary object— a supplement to our newest collective work, *Enthralled*, a game that accompanies Euripides' *Bacchae*, and aims to enhance group reflection, explore perspective-taking, decision-making in a democracy, and the fine line between fact and belief.

Teaching Ancient Greek tragedy in the classroom presents numerous challenges to the instructor and the modern student. The Aristotelian theory of tragic *pathos* outlined in the *Poetics* (1449b25-30), namely, that the arousal of “pity and fear” are the exclusive emotions proper to tragedy and that the “purification” of these emotions are the “proper pleasure” of the optimal Greek tragedy, as modelled by Sophocles' *Oedipus Tyrannus*, is still dominant in the teaching of Greek tragedy. Since Aristotelian theory offers insights in the emotional and aesthetic responses to art in the ancient world, it must be studied within the context of fifth and fourth century BCE literary and philosophical texts (Ford, 2015; Munteanu, 2012) and cannot convey, let alone prescribe, audience response across the centuries.

Attending a Greek tragedy performance resembles other intense acts or processes of contemplation and meditation on a single object (a cross, an icon, a mandala), in that it enhances self-awareness via deepened understanding of the object viewed. Performing in a Greek tragedy, on the other hand, is an embodied experience that offers itself as a kind of emotional exercise towards the development of emotional intelligence, self-realization, and self-discovery, while also introducing modern performers in the classical world's ethical values. The gamut of affective and cognitive responses to the tragic performance texts as new configurations of the tragic experience emerge, has been the subject of extensive study in recent scholarship (Konstan, 2007; Silk, 1996).

Capitalizing on her scholarship, decades-long teaching experience with innovative immersive pedagogies, and with theater performers as a dramaturge throughout her career, Katerina Zacharia designed the award-winning “Greek tragedy in Performance” course which prompts

students to engage with the primary ancient texts both critically and creatively via immersion into the making and staging of a particular play in a theater-based instruction¹. Collaborating with members of their group, students adapt and perform a pre-assigned Greek tragedy in a modern context of their choice, developing problem-solving and critical thinking skills, as well as engaging their imagination and creativity. Ultimately, the adaptation and performance of a Greek tragedy in a course setting aims to engage students and inspire them to become ‘enlightened witnesses’ of our common human nature, and be propelled to effect change in public life, while also endowing them with a good set of writing, presentation, and performance skills. Students are supported so that each one learns to pull one’s own weight as a citizen in classical Athens would for democracy to work, and, similarly, as a team member must do for the creative play adaptation and performance exercise to succeed. The idea of creating a game to accompany a Greek tragedy in the classroom emanated from this course, where a prototype of *Enthralled* was playtested online in spring 2021. The crux of this design effort is balancing the formalism of the play with a pleasurable-enough game experience.

The challenge of teaching Ancient Greek tragedy in the classroom parallels that of bringing it to the stage for a modern audience. A 2002 discussion at the Getty Center between scholars, directors and practitioners, encapsulates much of this debate. A co-founder of the *Oxford Archive of Performances of Greek and Roman Drama*, Professor Oliver Taplin, whose seminal work on the stagecraft and performance of Greek drama has shaped modern productions of Greek tragedy, laments that “most scholars are too bookish, too empirical, too purist, and sometimes too theoretical—and too conceptualized” and underscores the necessity for transdisciplinarity (Louise Hart et al., 2003: 131).

Gotsis faced a similar challenge while developing *The Brain Architecture Game*, a tabletop game about the science of early childhood and its impact on lifelong resilience. The core game story and its metaphors were developed and tested by the *Center on the Developing Child at Harvard University* and *FrameWorks Institute* for more than a decade and “spread like wildfire” (Center on the Developing Child at Harvard University, 2014: 8). Still, even gifted science educators, such as Professor Judy Cameron of the *National Scientific Council on the Developing Child*, argued that a more engaging conversation piece, rather than descriptive text, would create richer opportunities for insight with their diverse audiences of students, business leaders, educators, policymakers, and health professionals.

Tyack & Wyeth absolve educational game designers from putting “fun” above pedagogical goals while reminding us that context affects outcomes. The authors draw parallels from post WWI epic theatre, where “audiences were motivated to attend [...] because of their factual approach toward representing and analyzing recent societal events.” (Tyack & Wyeth, 2017: 3) Similarly, we argue that even real agency in interactive plays (vs. pseudo-participation) is non-mandatory if the educational goal is reflexivity and perspective taking.

Sir Peter Hall, whose National Theater 1981-82 production of Aeschylus’ trilogy *Oresteia* with masked and semi-masked male actors was tremendously effective and crowned with great international success (Parker, 1986), in discussion with Oliver Taplin (and many more), rebukes any claims of “accessibility” in ancient Greek tragedy: “I tell you from the bottom of my heart that unless this place embraces formalism and what formalism means, which is structure, artificiality, there is no hope in it succeeding and you’re wasting your time.” (Louise Hart et al., 2003: 135).

¹. 2019 Teacher Eddy Award from the LAX Chamber of Commerce in Los Angeles; 2018 LMU President’s Fritz B. Burns Distinguished Teaching Award; LMU Committee of Teaching Excellence R. Patricia Walsh Grant for Scholarship of Teaching and Learning (May 2015); UCLA International Global Immersions grant (2015-2017).

American theater director Peter Sellars, a MacArthur Fellow and distinguished Professor in the UCLA Department of World Arts and Cultures, explains his passion for bringing Greek tragedy to modern audiences², in order to create “some common place which permits us to discuss that which is unspeakable” (Louise Hart et al., 2003: 145). Sellars foregrounds citizenship and active participation in the affairs of the city-state of Athens as a prerequisite to producing and performing classical Athenian drama. He explains that his 2003 production of *The Children of Herakles* stems from a motivation to rethink the place of theater in our world, as it “needs to be in a democracy, more accessible, more participatory” (Louise Hart et al., 2003: 148). Renowned German theater and opera director, Peter Stein³, similarly emphasizes how Greek tragedy from its outset “is an extremely political enterprise” (Louise Hart et al., 2003: 155) and stresses that “the tendency to democracy, the possibility of creating democracy, is an absolutely necessary condition for the birth of Greek tragedy.” (Louise Hart et al., 2003: 156). Classical Greek playwrights invited the audience to judge the actions of the dramatic characters, including their choice of words and delivery, which deliberately replicated the experience of participating in the Athenian representative democracy, intentionally held up for all spectators to witness, including for the Athenian allies and out-of-state visitors.

In December 2020, the Michael Cacoyannis Foundation invited Katerina Zacharia to envision a new theater for the 21st century. She observes: “Theatre was born in classical Athens as a social cure for the citizens during a century of war, when the democratic city-state celebrated the great victories over the Persian conquerors, and the success of the Athenian empire, but also witnessed the rise of political bandits, and the strategic errors that brought about the devastating defeat to oligarchic Sparta. During the early years of the Peloponnesian war, in 428 BCE, at the time the great plague claimed the lives of the charismatic Athenian democratic leader Pericles and a third of the Athenian population, at the end of Euripides’ *Hippolytus*, the chorus concludes: “common is this grief that fell on all the citizens unexpectedly” (1462). The tragic life of Hippolytus, son of the legendary Athenian king Theseus, affected the whole citizen body, and only together could the Athenians overcome this grief by commemorating with stories those who have fallen. Theater, then, validates the social contract of a democratic state that respects the individual, and also provides the means to challenge narratives that are no longer beneficial to society. The isolation we all experience during the COVID-19 pandemic brings renewed awareness to the value of community support, and a strong incentive to explore new means for the spectator-participant to tell their own story in a new theater for the 21st century”.

In this paper, we set out to examine how active participation and interactive collaboration can be enabled in both classroom and stage. How can we consolidate the overlapping pedagogical goals of teaching or performing Ancient Greek drama as a constructive encounter with the “other”, as a rehearsal space for deliberative democracy, and continue to respect its form? First, we review the influence of Greek tragedy on contemporary forms of interactive entertainment, such as games, and on technologies, such as interactive narrative systems. Then, we look at examples from human-computer interaction and performance art to understand the meaning of “participatory”. We discuss where and how games and interactive entertainment have succeeded in knowledge acquisition, attitude, and behavior change, especially as it may be relevant to perspective-taking, and civic engagement. Finally, we introduce our game *Enthralled*.

². Peter Sellars productions of Greek tragedies are Sophocles’ *Ajax* (1986), Aeschylus’ *Persians* (1993), Euripides’ *Children of Herakles* (2003).

³. He produced the *Oresteia* (1980), Euripides’ *Medea* (2005), Sophocles’ *Electra* (2007), Sophocles’ *Oedipus at Colonus* (2010).

Ancient Greek drama, politics, and interactive entertainment

Classical Greek literature has influenced commercial games including aesthetic imitation and adoption of worldview (form and content), narrative and plot, and character development (Sebastian & Whitehead, 2008). Yet there is a lack of large market for “early Greek style stories and spectacle” and despite desiring higher sophistication because “visually, we have achieved the Greek aesthetic. However, this preoccupation with graphic content has come at the expense of narrative. The realism in presentation has no corresponding realism in narrative content. The result is less real.” (Sebastian & Whitehead, 2008: 103). Professor Derek Burrill remarks that “considering the history of theatre, particularly in the West, it comes as no surprise that we see many shared characteristics between games and drama.” (Burrill, 2005: 497). He concludes that “video gaming will become the defining and central mode of popular performance for the twenty-first century” and urges us to attend to “the politics of the digital worlds” as a co-construction of technology and user psychology, and the space in-between what is real and what is not, as the “performance” space (Burrill, 2005: 510). Admonitions against false dichotomies echo ideas voiced in the 2002 Getty seminar, as the political dimension of drama is brought to focus again, reframing the discussion. Burrill’s feminist-Marxist-poststructuralist stand on politics and games parallels Ancient Greek drama’s strong exhortation for deliberative democracy. The relationship of drama to contemporary political context transcends “form” (ancient theatre vs. videogame).

From agents to robots, and from stage, to labs, and classrooms, drama and narrative structure have been extensively researched in artificial intelligence and computer science (Koenitz, 2016; Pizzo, 2021). Koenitz cautions while entering this interdisciplinary space as semantics and etymology become rife with confusion: “the understanding of ‘model’ in computer science might diverge considerably from the understanding of the same word in the humanities. Conversely, ‘story’ in the general sense of ‘narrative’ clashes with the basic structuralist distinction in narratology between ‘story,’ meaning the ‘what’ of a narrative, its content, in contrast to ‘discourse,’ denoting the ‘how,’ the presentation, its ‘telling.’” (Koenitz, 2016: 2).

Presence, participation, and reflexivity

In his 2002 Getty talk, Oliver Taplin draws attention to a poem collection by Irish Nobel Laureate Seamus Heaney (1996, *The Spirit Level*). In the first poem, the watchman from the beginning of Aeschylus’ *Agamemnon* is developed in such a way that we know he is not just watching but is fully aware of the suffering of war, and also knows what is happening in the palace; much as the viewer’s role: “He sees and hears too much to leave him innocent. The next poem, ‘Cassandra,’ begins with the words, ‘No such thing/ as innocent / bystanding.’ Theater is not innocent. It’s complicit. It cannot be free of politics, just as it cannot be free of passion. What it does, I think, is witness—a key word. It witnesses to the present, witnesses the events of the present. But if you are putting on a Greek play, it witnesses to the present in the light of the past or by responding to the past.” (Louise Hart et al., 2003: 127–128).

Such “witnessing” is harder to observe in contemporary works inspired by Greek drama using new forms of media and technology. Human-computer interaction (HCI) methodologies offer some insights regarding witnessing as a form of participation and engagement. *Haemon*, the third part of a trilogy called *Antigone in Husby* written by Rebecca Forsberg and RATS theater, was evaluated by an independent team of researchers to try to answer questions regarding the impact of the performance on what they call “audience-citizens” (Rossitto et al., 2017). *Antigone in Husby* was written in response to the Husby riots in Stockholm, Sweden after the shooting of a man by a police officer in a “poor” neighborhood. Parts of the interactive performance were enabled via an app and took place in the train subway. The researchers

collected empirical evidence via observation, interviews, surveys, and application software logs. This project is described as “filmed-theater” play intended “to bring people together and to encourage a dialogue around the socio-political issues underlining the riots” (Rossitto et al., 2017: 4850).

The researchers found that several project goals were met, including “genuine interest for *Husby* and its socioeconomical tensions” but noted the lack of conflicting opinions due to audience homogeneity and possible discomfort while being observed (Rossitto et al., 2017: 4857–4858). They hypothesized that “framing an event as an artistic one might not necessarily attract the very people who would like to have their voices heard” (Rossitto et al., 2017: 4858). More powerful findings included the impression that “the understanding of the riots was remediated and made relevant through the reframing of the interactive performance [...] several text entries were characterized by emotional and personal attributes, thus connoting how people felt about the events in question, rather than pointing to collective, organized, political actions.” (Rossitto et al., 2017: 4858) Despite audience homogeneity there was “a consolidation of pre-existing values [...] an outlet to share thoughts and feelings, which resulted in a sense of empowerment for the audience-citizens.” (Rossitto et al., 2017: 4959). This outcome may be very different in a diverse educational setting, making the play a versatile intervention.

Haemon is one example of how HCI intersects with democratic decision-making and democratic innovations. Nellimarkka reviewed 80 such papers on participation support in democratic decision-making finding several critical research opportunities for HCI and political science, including “approaches and tools that enable political scientists to utilize prototypes and design with digital materialities” and “dimensions of democratic innovation” (2019: 139:10-13). Innovation can give rise to problematic phenomena such as pseudo-participation in digital public services, including voting catering to “technocratic clientelism,” “an impression of openness,” and “tokenism” (Palacin et al., 2020: 41). In interactive plays, voting on plotline outcomes that may or may not alter the ending, or the characters’ experiences in a significant way, is a type of pseudo-participation but this is not an-all-or-nothing argument. *Haemon* is an example where the goal of participation was not to change the story, but to create an opportunity for reflexivity. Such affirming emotional experiences can be as useful as value transformation experiences, and can influence perspective-taking.

Impact on knowledge, attitudes, and behavior

Measuring impact across diverse disciplines brings debatable results. The flourishing of research into serious games and games for/in health (Gotsis, 2009) has generated a growing area of scholarship with some rigorous evidence, but methodologies remain contested and heterogeneous (Tyack et al., 2020). Such lack of consensus is a natural reflection of the vast heterogeneity of the forms and genres of interactive entertainment. While psychologists are less comfortable with methodological ambiguity, educational researchers seem more flexible. Humanists, of course, thrive in complexity.

A close look into empirical evidence of games to promote empathy, pro-social behavior, and perspective-taking demonstrates high productivity, but it is too early to point toward true-and-tested paths toward achieving multiple educational goals (Boyle et al., 2016· Dishon & Kafai, 2020· Peña et al., 2018· Saleme et al., 2020· Schrier, 2020). In the case of democratic processes, even simple classroom simulations have been found effective at generating rigorous debate and improving comprehension (Nishikawa & Jaeger, 2011). A timely mini review of how games can cultivate perspective-taking cites Todd & Galinsky toward defining perspective-taking as “the active consideration of others’ mental states and subjective experiences” making the case for perspective taking as “central to a variety of social processes” and highlighting its

importance in times of political polarization and ideological echo chambers in social media (Dishon & Kafai, 2020: 1–2).

Perspective-taking (and empathy) are not without pitfalls, even in games, as was found in a study on 172 undergraduate students (Peña et al., 2018). Students played the award-winning game *Papers, Please* (2013), a puzzle simulation in which one role-plays an immigration officer in a fictional country with hostile political relationships. The researchers tested whether “taking the perspective of a game character that is suspicious of immigrants may subsequently reduce players’ willingness to help real immigrants.” (Peña et al., 2018: 688). Results showed that “intention, subjective norms, and self-efficacy to help immigrants decreased relative to baseline scores after random assignment to play the role of a dystopian immigration inspector (compared to a similar control game)” and despite generalization limitations, the researchers believe that the one-sided perspective taking experiment probably backfired (Peña et al., 2018: 692). This underscores the complexity of trying to understand the many ways that narrative and interactivity can influence perspective taking and other outcomes. While science can provide rigorous methods of evaluation, the burden of ethics and moral decision-making regarding stories and characters cannot be left to science alone (Gotsis & Jordan-Marsh, 2018).

Zacharia and Gotsis game *Enthralled* is based on Euripides’ *Bacchae* with a goal on exploring perspective-taking, democracy, and the boundary between fact and belief. The narrative consists of multiple brief scenes adapted from the original play of Euripides. The main character of each scene is questioned at the end of each scene. The character’s response is drawn from a deck of cards and may or may not be congruent with the play or the character. Nonetheless, the players are asked to judge the character on a binary outcome and to provide a judgement rationale. The game is replayable with the goal of achieving a majority vote via deliberation. While *Enthralled* is in early development and testing, it is a valuable conversation piece in this transdisciplinary collaboration.

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This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101004949. This document reflects only the views of the authors and the European Commission is not responsible for any use that may be made of the information it contains.