Iterating the Past: Using Game Analytic Methods in Historical Game Studies

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Keywords

past-play, historical game studies, mixed-methods, experiment, pilot

INTRODUCTION

This study presents a mixed-methods, player-experience centric examination of past-play, play about and around history, as a process of destabilizing and shaping relationships to the past. A large portion of contemporary work analyzing historical games centers on researcher-centric and game-centric approaches, such as close-playing and developer interviews (Chapman 2016; Mukherjee 2018; Grufstedt 2022). These ventures demonstrate the value in studying historical videogames as sites of pastness, recognizing and categorizing historicity in and around videogame play in relation to discourses of authenticity, accuracy, and agency, among others. However, recent works have highlighted the need for a shift in historical game studies research, incorporating game-analytic approaches, larger-scale analyses, and focusing on experience (Mol 2020; Politopoulos et al. 2019). This pilot study combines player observation, eye-tracking, survey data, and focus group discussion, to two ends: (I) to examine past-play using an Open Science, mixed-methods approach, and (II) to road-test the feasibility of implementing the chosen methods at scale. The pilot presents the first phase of a larger series of past-play 'labs', showing the potential of iterative, mixed-methods research for deepening lines of investigation into past-play.

PAST-PLAY PERFORMANCE & PLAYER EXPERIENCE

Drawing on literature in theater and performance studies, cultural anthropology, and postcolonial & queer game studies, I argue that players of historical videogames make the backdrop of history 'graspable' through alternative orientations in real- and game-space. History becomes a prop which the player can assign and attribute new disruptive meanings to in the performance of past-play, disrupting hegemonic ideas of 'successful' historical videogame play and forming relationships between the past and the self (see Ahmed 2006, Keogh 2018, and Morgan 2020). To investigate this theoretical framing, I look at interaction in past-play, examining hands, gaze and physical orientation, as well as discourse, self-involvement, and social orientation, in relation to a historical game and its content. The aims of the research are presented in three research questions:

Proceedings of DiGRA 2025

1. How do players interact with elements related to the past during play?

2. How does this interaction differ across various types of past play(ers)?

3. What is the impact of this interaction on players' understanding, valuation, and emotions relating to the past?

This pilot uses the game *Assassin's Creed Origins* (Ubisoft Montreal) as a case study for player experience analysis. This is one of many case study games to be implemented in the past-play 'labs'. The game's narrative centers around themes of family, oppression, and invasion. Gameplay features role-playing elements, varied combat mechanics, and an open world setting against a 'high-fidelity' historical landscape. These elements position it as a suitable case study game for the study of historical immersion, player interaction (e.g. with a controller), and self-involvement.

METHODOLOGY

This study combined three game-analytic methods: player observation, questionnaire responses, and focus groups. Players were observed playing *Assassin's Creed Origins* in controlled (lab) and home settings, asked to respond to two questionnaires, and then participated in mixed-condition focus groups with other players. A total of 12 participants (aged 18-37 years old) were selected on the basis of their experience with the Assassin's Creed series (30 or more hours played).

Player observation allows for the investigation of player interaction—comprising perception and action—and choices made during gameplay, in and out of game. Observation was conducted in one of two conditions: a controlled lab setting or the player's home gaming environment. This variable condition permitted observation into whether player behavior differs across an unfamiliar lab setting and the player's situated "gaming body", their local setup. In both conditions, players were asked to play *Assassin's Creed Origins* for two hours. Players were recorded via eye-tracking, screen recording, and a camera focused on their hands and their chosen gaming interface; players were also observed live.

The questionnaires allow players to self-report on their experiences in a closed-response environment, formulated based on several existing scales assessing player experience, identification, and affective self-involvement (Drachen 2018; Abeele et al 2012). Two questionnaires were filled out by each player. Q1, which collects demographic information and self-report items about play style, player skill, and interaction with game paratexts and player communities, was filled in prior to the observation session. Q2 is aimed at assessing participant attitudes towards various elements of gameplay including attention to story cues, game-world immersion, and their feelings about history and the past during play. Players were asked to fill in this questionnaire immediately following their play session.

Lastly, focus groups facilitate player discussion within a social environment that simulates player communities, which have been established as a site for the negotiation, attribution, and rekeying of game interactions. Focus groups consisted of 3-4 participants each and were moderated, audio-recorded sessions. Participants were given a list of questions relating to their engagement with the game's setting of Ancient Egypt, their attachment to story elements and player and non-player characters, and "correct" ways to play a historical videogame. These questions guided

the discussion, and follow-up questions were derived from each discussion and so differed across focus groups.

Players' gameplay timelines are often stitched together from multiple disparate play attempts, variously deleting and blurring *undesirable* moments of difficulty or failure (Atkins 2007; Keogh 2018). By observing both the moment of play, how players interact with both interface and game, and recording how players code their gameplay experience in closed and open-response settings, it becomes possible to construct a multidimensional narrative of gameplay that, considered holistically, can be evaluated as the object of analysis. This narrative provides critical insight into where, how, and why these connections to history, pastness, and selfhood are constructed and deconstructed through play.

ANALYSIS & DISCUSSION

Data collection for this pilot experiment concluded in May of 2025. The data have since been processed (using Tobii Pro Lab, Amberscript, and Qualtrics), tagged and compiled into a comprehensive dataset of focus group transcripts, annotated eye-tracking recordings, questionnaire responses, and tagged play session footage. Analysis fronted an exploratory grounded theory approach to allow for bottom-up observations across the different types of data and inform the iterative design process of future past-play 'labs'. In this talk, I will provide an overview of the statistical, discursive, and methodological conclusions drawn from the analysis of the compiled dataset. In specific, I draw connections across interaction intensity, gaze data, and player investment in the game's narrative and the game's historical representations. I will also reflect on the limitations of the chosen methods, adopting game analytics for past-play observation, and collecting videogame data in naturalistic settings, in the context of carrying out scalable, replicable research into historical videogame play. Feedback from the presentation of this pilot study will be incorporated into future iterations of this experiment.

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