

Space Bites Back: Agency and Archive in Gamespace

In recent years, digital games have moved outside of the arcade and the living room. The emergence of competitive play has created large, spectator-driven arenas and pop-up Local Area Network (LAN) parties occupying entire convention centers (T.L. Taylor, 2012). Mobile applications have altered common practices of gameplay, the spaces in which play occurs and the communities that inhabit those spaces (Hulsey, 2015; Hulsey & Reeves, 2014; Montola, Stenros, & Waern, 2009). Furthermore, virtual and augmented reality technologies are poised to revolutionize how gamespaces are designed, deployed and experienced (Gordon & Manosevitch, 2010; Manovich, 2006; Roy, 2012). Space, and more specifically ‘gamespace’, has become problematized in the context of game studies. Gamespace is often considered the space in which a game is played. Recent developments in the study of gamespaces suggest that gamespaces are best viewed as interdependent spaces existing within a complex network of contingencies that includes player, gameplay and technology (Malaby, 2007). Gamespace is a combination of all active gameworld elements: controller, screen, code, aesthetics and interface (Jorgensen, 2013; Nitsche, 2008).¹ Player avatars and enemies are also part of gamespace, as they are interdependent with coded space. Using this definition, I aim to build on the concept that gamespace acts as a co-relational source of agency in what Taylor (2009) deems an “assemblage of play”: a web of human and technological agents that comprise the act of play in a digital context. T.L. Taylor, drawing from Deleuzian theory, suggests that agents in the “assemblage of play” can only be defined by their external relations.² Scholars must first explore agency before assigning any elements a formal ‘place’ in the assemblage or, more preferable to me, *network* of play and gaming.³

While the study of gamespace has moved towards a network-oriented approach, most work on gamespace is concerned with where gamespace falls in relation to gameplay. However, when using a network-oriented framework, analysis must begin with *agency*: in other words, we begin with *what gamespace does* rather than *where it fits*. Where does gamespace go and what does it accomplish? Rather than being bitten, when agency is added, space bites back. I assume the process of play, digital or no, is comprised of networks within networks. However, as Latour

¹ “Gameworlds” encompass all spatial elements and aesthetics in a game, including those that do not come into play. Backdrops, inaccessible areas, barriers such as walls and water and cinematic spaces are gameworld elements that help sustain spatial narrative but are not part of gamespace (Jorgensen, 2013). Gamespace comprises the active spatial components of play.

² For Deleuze and Guattari (1987) the term “assemblage” is, at its most basic, a set of heterogeneous entities that are relationally bound to one another. An assemblage can be recognized and observed by its external relations with other assemblages (de Landa, 2006).

³ Taylor (2009) uses the concept of ‘assemblage’ to define the complex interactions during acts of play. In this paper I will be using the term ‘network’ in the tradition of Latour (2005): as a “tool” tracing the movements and interrelations of objects, energies and meanings. Latour notes the shared sympathies between ‘network’ and ‘assemblage’: assemblages are arrangements of actors and network analysis is a method for describing the relationships (p. 2-8). He describes the similarities between concepts as a “change of metaphor” (Latour, 1996).

(2005) points out, part of studying networks is the act of tracing agency, or, in his own words “flows of translations” (p. 132). So, my work here attempts to “trace” gamespace’s translations by examining what it does. I suggest that gamespace is agential in the context of gaming, simultaneously acting as the source of spatiality in gameplay and a fluid archive of player actions that sustain the player’s identity during gameplay. By drawing on diverse bodies of theory that deal with spatiality, this approach seeks to clarify gamespace by analyzing how gamespaces actively work in the context of fluid networks that constitute games and gaming.⁴

First, I will explore relevant examinations of gamespaces proposed by game studies scholars and contrast them with ‘gameplay’, which is usually given precedence. These myriad approaches are supported by problematic representationalist and dualist tendencies, proposing that gamespaces are virtual containers, representations and “allegories” (Aarseth, 2001). By assuming that gamespaces are representational forms, these approaches frame gamespace as an antecedent to players, narratives and gameplay. Dualism and formalism in the study of spatiality suggests space either precedes agency, is the result of agency or hosts agency (Lefebvre, 1991). In game studies, formalism separates players, games and play as ‘forms’ that exist independently of one another. Rather than heterogeneous networks, formalists assume games are composed of unified homogenous systems (Malaby, 2007). However, recent scholarship paves a way for integrated, agential views of gamespace (Nitsche, 2008; Wood, 2012). While these developments are important, they also pose issues. Often, attempts to frame gamespace without first exploring its external agential relations intimate that gamespace is subordinated in relation to agents like ‘player’ and ‘gameplay’. In other words, gamespace is “created” to house important processes. A one-space-fits-all framework leads to the frequent assumption that player and gameplay comes first and exist *a priori*. This line of flight leads to suggestions that “game,” “player” and “play” should exist as primary distinct categories (Kampmann Walther, 2003). This creates a schism where studies of players and play can be detached from space. Not only does this subordinate gamespace, it also subordinates our understanding of how spatiality, and spatial epistemology, works in the context of gaming. I argue when scholars assume that gamespaces *do* exert agency, a different model emerges where understandings of player identity and gameplay are diversified.

This analysis explores gamespace by tracing two different translations: gamespace as *agent* and gamespace as *archive*. To do this, I deploy an epistemology of gamespace that avoids subjugating space as a non-agential prop or dead framework. Any epistemological exploration of gamespace as agential should include exploration of how spatial knowledge constitutes gameplay and player identity. In short, how do translations of gamespace act on adjacent external networks such as player and gameplay? To accomplish this, I will pull from three areas of

⁴ Spatiality refers to a variety of individual and social spatial practices. More specifically, spatiality applies Tobler’s (1970) law postulating that the position and movements of individuals and groups through space determines the intensity and nature of interactions. I draw my understanding of space from a Foucauldian perspective. Foucault (1984) defines space as a heterogeneous “set of relations” that we live in; space also “draws us out of ourselves” by actively distributing and circulating relations of power and knowledge.

theory grounded in examining agential characteristics of constructed, technological spaces: critical theory, technological philosophy and (media) ecological theory. I argue that an epistemological take on gamespace benefits from an approach that is sensitive to spatiality in digital games, one that assumes neither player, gameplay or gamespace possess some unique formal quality that allows them to be separated or ranked—rather, each exists within a mediated ecology of shared agency. Along with Lefebvre (1991), Deleuze and Guattari (1987), Latour (2005) and Foucault (2010), my approach draws from Gilbert Simondon's (1992) theory of individuation and Matthew Fuller's (2005) reimagining of media ecology as heterogeneous, networked processes.

Space is a key word when exploring gaming as a set of networked agencies. Drawing from work by Lefebvre (1991) and Harvey (2006), I do not assume that space is a container or that it is primarily *acted upon*. Rather, all space is created, creative and dynamic—in short, space is *agential*. Applying this insight to gamespace, it distributes contingencies and acts as a heterotopic archive, providing context to gameplay, which is a form of spatiality. Gamespace does not necessarily *contain* anything so much as it is *connective* to everything via territorialization and coding. Through spatiality, the subject position of 'player' is a networked, spatialized archival process of 'individuation', or ongoing processes of informational networks that sustain temporary, discernable identities (Simondon, 1992). Gamespace sustains player and gameplay by spatializing the contingencies and archiving the information produced via spatialization. Gamespaces are kinetic relationships that drive and record player experiences. As such, I offer an integrated approach to understanding how gamespaces work to sustain, rather than contain, gameplay by actively cultivating and archiving players' spatial knowledge. Rather than a representation of space or a container constraining the bodies of players, gamespace is the key contextualizing process in player embodiment and experience.

Game/Space/Play

In this section I will be exploring how gamespace has been framed through the course of game studies. This review acts to form a critical epistemology of gamespace rather than an exhaustive review of literature. However, before we explore interpretations of gamespace, it is best to exercise terminological clarity. Throughout this analysis, 'gameplay' is a common term I use. In short, I am directly referring to the actions that a player takes and the consequences of those actions. However, I typically employ a Foucauldian approach centering gameplay at the nexus of control-oriented potentialities connecting player, technology and game. N. Taylor, Bergstrom, Jenson, and de Castell (2015) describe gameplay as an "economy of desire that operates between the player and the game" that can include a variety of elements including desire, pleasure and attention as they pertain to the rules of a game. The concept of *desire* is key here, since multiple relevant disciplines—including philosophy, sociology, architecture, cultural studies and, of course, game design—link it with control *and* play (Ash, 2010; Baudrillard, 1998; Deleuze, 1995; Grosz, 2008; Massumi, 2002; Schell, 2008; Schore, 1994; Trammell & Gilbert, 2014; Tschumi, 1996). Voorhees (2013) states that gameplay is a manipulation of desire on the

part of player and game. Gameplay is co-relational control: a player's desire to navigate the game's rules and outcomes and the consequences of that desire. This conceptualization of gameplay situates control at the "nexus of structures of domination and individual agency" (Voorhees, 2013). Voorhees states that gameplay can be understood from the perspective of Foucauldian power: the relationship between the subject and power is not antagonistic, but rather a process of negotiating desire through the circulation of continuous possibilities within a space. Gameplay, then, involves a "possibility space" that is "bounded by but not bound to game rules" (Voorhees, 2013). A key element in understanding the position this analysis takes is that gamespace and gameplay are not separate: it questions the logic of prying them apart. In many of the frameworks of gaming covered here, the terms 'gameplay', 'gamespace' and 'player' are cast as separate entities, as if one can be detached from the other and analyzed independently. While this makes it easy to assign distinct forms to each concept, it does not solve the issue of how they act on one another or where one entity "begins" and the other "ends." As we will see, the urge to divide and conquer leads to a myriad of issues, centering on the argument that gamespace is either consequential or purely representational.

One example of gamespace-as-representation is Aarseth's (2001) early work on gamespace as "allegory." Aarseth makes some valuable moves in this piece, one of the earliest to address spatiality in game studies. In it, he claims that spatiality is a key concept in gaming and differentiates gamespace from the term 'cyberspace', which was commonly used in studies of hypertext and the early internet. This moves away from his previous classification of games as "cybertexts" (Aarseth, 1997). Distinction between gamespace and cyberspace is important because it supports that space actually *exists* in gaming. However, his interpretation also limits the concept of gamespace to representation. Aarseth (2001) states that gamespaces are "representations of space (a formal system of relations) and representational spaces (symbolic imagery with a primarily aesthetic purpose)" (p. 163). However, gamespaces also can work against the player, meaning that they take an active role in gameplay—an important point in his argument that games are "ergotic": they systematically challenge the player (Aarseth, 1997, 2001). This suggests agency, but presents a question: what type of representation is gamespace? Aarseth maintains that gamespaces are "closed" representations, assuming that they form a procedural unit from which the player cannot escape. He states: "the topology of even the most 'open' computer generated landscapes makes them quite different from real space, and construed in ways that are not inherent in the original physical objects they are meant to represent. This makes them allegorical: they are figurative comments on the ultimate impossibility of representing real space" (pp. 169). A representational model essentially holds that gamespace is static within the overall structure of games and it can be analyzed solely as a type of diegetic/ergodic text, a "fictional comment" by the authors of the game.

One issue with this approach is the arbitrary distinction between real and unreal, which leads to the definitional problems encountered when talking about "virtual spaces" and "virtuality" as evidence double-sided reality rather than a process of becoming (Massumi,

2002).⁵ By Platonizing gamespace and enclosing it within literary terminology, Aarseth (2001) fails to take into account that the (game)space outside the screen matters, as well. The coded spaces of computer games cannot exist as referents to an indiscernible reality because they have consequences. Gamespaces, at their most basic level, are necessarily rooted in a physical and material world. In the context of digital games, the physical spaces of play, the materiality of technological devices and the haptics of control matter. Players cannot directly act within an allegory, and allegories have a clear referent within the overall structure of a text, but not necessarily outside of it. Thus, allegories certainly exist through the spatial narrative of the game.⁶ Allegory can perhaps happen within gamespace, but gamespaces are not lived allegories. However, gamespace cognitively and physically extends beyond the screen, connected to a wide network of other spaces and spatial actors. This fact defies the idea that gamespaces are virtual in the Platonic sense—that they exist as a space that is only referential to itself. What is interesting in this case is that examining spatiality in games and play has a relatively long history, but that history is not located in what would generally be described as textual, narratological or hermeneutical studies. Aarseth’s early analyses provide one of the first independent interpretations of gamespace, proper.

Other definitions of gamespace utilized formalism, often quoting Huizinga’s “magic circle” by locating the ‘space’ of games within the set boundaries of ritualized rule systems (Salen & Zimmerman, 2003). As such, gamespaces in early works are construed as purely virtual, synthetic or “half-real” spaces that are consequences of players’ interactions with rules and mechanics (Aarseth, 2001; Castronova, 2005, 2007; Castronova & Falk, 2009; Juul, 2005). Gamespace was considered to be a result of ludic procedure (Sicart, 2011). These procedural spaces also functioned as rhetorical spaces that contain and constrain player actions. The procedure of play generates meaning which in turn defines space, and not the other way around (Bogost, 2007). For example, L. Taylor (2003) states: “video game spaces are more than simply the sum of their code – they are experiential spaces generated through code and the player’s interaction with the execution of that code through the medium of the screen.” Gamespace is cast as the formal result of procedure, with no active component beyond consequentiality.

More recently, “procedurality” (Sicart, 2011) has undergone significant alterations that focus on gamespace as an active process linked to gameplay. Approaches that resist framing “games” and “spaces” as separate entities have suggested gamespace is: *pervasive*—any space can become a gamespace so long as gameplay is present (Montola et al., 2009); *cybernetic*—gamespaces are the result of looping processes between player and gameplay (Galloway, 2006);

⁵ Virtuality is either platonic in nature, a representation or simulation, or it is active. I adopt the Deleuzian approach to the virtual, which claims virtuality is the presence of possibilities, which are very real but not actualized (Deleuze, 1991). The virtual/actual circuit describes virtualities that are actualized, and actualizations that become virtualized (Massumi, 2002).

⁶ To avoid an old debate, it should be stated early that narrative and gamespace are closely tied. While this will be covered in depth later, it is important to note that Jenkins (2004) correctly claims game narrative is architectural, and generates meaning through gamespace. Narrative in game design is important and shares similarities with major design principles in architecture (Jenkins, 2004). Ignoring narrative and aesthetics, two other translations of gamespace, passes over a wealth of meaning and agency.

recursive—gamespace takes an active role in shaping multiple player identities that are sustained through gameplay (Wood, 2012); *networked*—gamespaces intersect with social-spatial aspects of power, capital and knowledge (Dyer-Witheford & de Peuter, 2009). In these co-agential models, both gamespace and gameplay grant agency to the player, but gameplay comes first (Dovey & Kennedy, 2006; Voorhees, 2013; Wood, 2012). Gamespace embeds spaces of possibility that are opened up and explored through gameplay. This implies that players, through play, actively generate gamespace while gamespace recursively distributes “possibilities” or “directions” that player can take (Wood, 2012). Under this model the generative power of play is shared by player, gameplay and gamespace. The player maintains the subject position of ‘player’ so long as the process of gameplay continues. The continuance of gameplay is contingent on recursive spatial possibility. Under this model, gamespace contextualizes the players’ negotiations of protocol through gameplay.

Wood (2012), working with process -based models of play, states that gamespace is “co-constituted” by player and gameplay. She claims: “This space is recursive, based on feedback between the state of the game (relations between the objects) and the state of the gamer” (p. 102). For Wood, gamespace is instantiated two ways: one is the player’s physical engagement with space via technology and another is the procedural creation of gamespace that depends on gameplay. Thus, gamespace is understood as a recursive space that exists based on contingency—the contingencies of the game’s mechanics, the contingencies of the technology on which the game is played and the contingencies of the player’s body as it interacts with both mechanics and technology (Malaby, 2007; Wood, 2012). Gamespace is formally classified as a rule-based process. However, these rules require constant collisions and engagements between players and the possibilities instantiated and sustained via gameplay. These collisions directly lead to the creation of gamespace (Wood, 2012). In this framework, the creation and maintenance of gamespace is necessary for gameplay and player; however, it is largely seen as a secondary process.

Process-based models of gamespace cast it as a set of organizing principles that allow gameplay to sustain meaning-making practices: “Players manage their input to try and work with or against the ways in which the game recursively plays out...any action of an avatar mediated by the gamer has the potential to alter space” (Wood, 2012, p. 103). Recursive space proposes that gameplay and gamespace both support the meaning-making actions of the player—they comprise an entanglement of code, materiality and the player’s actions. However, gameplay and player deliberately build gamespace via technological co-agency, which leaves gamespace as a secondary concern in the study of games and play—its agential qualities are reactive. So, gameplay constitutes players’ actions experiences and create gamespace (L. Taylor, 2003; Wood, 2012). Beneficially, this scholarship purports that gamespace is process-oriented and thus agential at some level. However, in terms of ontology, gamespace acts as a container for, and a result of, player and gameplay. While there is some logic to thinking of space (and gamespace, in particular) as a container that holds important ingredients together, I argue that this approach

denies the importance of spatial agency in the process of gameplay. After all, you can easily remove ingredients from a container. For this reason, I call these assumptions “active container models.” Despite issues, though, gameplay-centrism brings the body of the player into question in a positive manner, while also highlighting how space and the player-body interact. Active container models hold that the player’s body enters and builds gamespace via technology—i.e., the player is technologically embodied gamespace via cybernetic loops constantly reproduced through engagement with technology (Dovey & Kennedy, 2006; Simon, 2007; Wood, 2012). In this cybernetic loop, the body of the player becomes a technologized body that is enabled and constrained via willing negotiations with gameplay’s requirements (Dovey & Kennedy, 2006). Gameplay highlights the co-dependency of players and machines in the act of gameplay and the production of gamespace.

One example explored by Simon (2007) involves practices such as case modding (or building and decorating the cases that house gaming equipment) and LAN parties, where players set up impressive networked spaces for localized multiplayer gaming. In both instances, players go through extreme effort to display and valorize their co-productive status with technology and materialize their relationship with gamespace. This materialized effort is important to the study of games because the body, combined with both technology and coded mechanics, are indicative of the desire to sustain gamespace through play. Thus, the networked body becomes the primary site of spatial activity, entering “into” and acting “within” a gamespace that is part code and part material. While the body might be seen as a frustration, the case mod turns the player’s technologically co-constructed body into a source of pleasure that is “coextensive” with both gameplay and gamespace (Simon, 2007). Thus, the production of gamespace is inevitably linked to the technologically entangled body of the player. The produced/productive body of the player is also key in the continuance of gameplay *and* gamespace. This approach places the player as a node within a larger network of technology. It also suggests that gamespaces are not just coded spaces, they are very real. However, it still does not assume that the gamespace is agential in the creation of the player’s body. Rather, as Simon (2007) points out, it is gameplay that acts as the structuring force behind the networked player—the external relationships between technology, player and gameplay lead to the production of material gamespaces.

The analysis of bodies, materiality and gameplay intimate that gamespace reaches beyond the rule-based ritual spaces and the mediated space of the screen. It is framed as a *reactive* agent and space a container for players’ desires. However, Nitsche (2008) ensures gamespace finally moves from container to network. Nitsche situates gamespace across “five planes”: mediated spaces, rule-based spaces, fictional or imaginary spaces, the physical act of play and the social spaces, such as LAN parties, that encompass gaming culture (2008, pp. 15-17). He points out that gamespace is conceptual and distinctive: it is a combination of both biological, physical and coded spaces in addition to imaginary, cognitive and social/cultural spaces, as well (Nitsche, 2008). By assuming that gamespace is not monolithic, Nitsche draws from concepts of spatiality

found in Lefebvre's (1991) concept of *spatialization*, or the social and material production of different, intersecting formulations of space.

When discussing the “production of space,” it is important to note that Lefebvre does not assume that space is non-existent before spatialization occurs. Rather, he argues that space enables its own means of production, and those productive mechanisms take specific forms (Lefebvre, 1991; Unwin, 2000). Spatialization maintains that when studying space, scholars should pay attention to the ways in which space is socially defined and altered through spatial practice and experience, or *spatiality*. However, scholars must also consider the ways that space impacts human activity. Spatialization acknowledges that space is simultaneously active and reactive. Different spaces act differently and are acted upon according to their heterogeneous qualities (Foucault, 1984; Lefebvre, 1991). Spatiality leads to imperfect categorizations of space: natural (or *absolute*) spaces, mathematical (or *abstract*) spaces, mediated (or *representational/represented*) spaces and cultural (or *social*) spaces (Lefebvre, 1991). Social space is a connective space, rearticulating the proposition space is not absolutely natural or abstractly mathematical—it is networked and consists of physical, social and material relationships that are enabled *through* spatiality and not *within* space itself (Lefebvre, 1991; Soja, 1989). Lefebvre states that even mathematical, abstract space is subject to the social understandings of people at a certain time in place: “If space is a product, our knowledge of it must be expected to reproduce and expound the process of production. The ‘object’ of interest must be expected to shift from things in space to the actual production of space...” (pp. 36-37). “Producing” space has a double meaning. Space produces the means of its production: it defines and enables agency, which creates different forms of spatialization. Spatiality places gamespace into an active category, rather than a reactive one.

Applying the concept of spatialization to gamespace leads Nitsche (2008) to a key point: gamespace is not a single space, but a set of interlocking spatialities comprised of “qualities” (formal features) and “operational forces” (embedded agents) that produce “five planes” of gamespace (pp. 20-21). By categorizing gamespace as interlocking planes, Nitsche takes major steps towards a multidimensional understanding of gamespaces. He envisions gamespace as “layers” of conceptual spatial dimensions linking spatiality to the experience of gameplay. Again drawing from Lefebvre (1991), he focuses on how gamespace helps produce spatial experiences and sustain spatial narratives. However, he also assumes that gamespaces are conceptually comprised of “layers” (Nitsche, 2008). Under Nitsche's framework, gamespace, while active, also maintains internal consistency based largely in acts of gameplay and player experience. I would like to modify this assumption: gamespace is a networked composed of heterogeneous actors that exert agency on both player and gameplay. Gamespace's affective qualities are not dependent upon gameplay; rather, networked gamespace actively co-produces both gameplay and player. Gameplay is composed of conflicting, and active, spatialities; a claim that is in direct opposition to the notion that gamespace is a product of other agents' activities, rather than the structuring force enabling those activities. Gamespace is not directly produced by gameplay;

rather, gamespace enables the means of its own production by configuring and contextualizing gameplay. This analysis traces the affective qualities of gamespace as networked external relations that act on other aspects of gaming: gameplay and player.

To define any network or assemblage, we must examine its relations and translations (Latour, 1996). This means that we must view networks as a fluid sets of assemblages that change meanings as they interact with other networks (Latour, 2005). Translations of gamespace do not always form neat layers. Gamespace shapes players and gameplay and should be considered an *active agent* in networked play. This means that a network-oriented epistemology of gamespace must assume that it gains form via external relations. Latour (2005) states that ‘network’ is a conceptual tool used to trace agency through examining the shifting relationships of actors and assemblages. Agency is movement, and translations of movement, as the network creates and sustains relations between various nodes (Latour, 2005). So, we must trace how gamespace moves by looking at its affective capacities—how it generates possibilities and actualizes consequences. Gamespace is the native site of contingency and possibility in gaming. In distributing contingency, it also keeps a record, or archive, of human and non-human actions to provide narrative contextuality. In doing this, gamespace also builds the ludic body of the player and give that body meaning. This section traces some, but not all, of the affective energies of gamespace. I show how agency, contingency and archive can be used as fundamental examples of gamespace working within a networked ecology of play. I center gamespace as a key agent playing a role in individualizing the player and reaffirming the players’ actions in the context of play.

Ecologies of Gamespace: Agency, Contingency and Archive

To frame this exploration of networked gamespaces, I use Fuller’s (2005) revised framework of media ecology. Fuller (2005) states that the term “ecology” is used to refer to media systems “because it is one of the most expressive [terms] language currently has to indicate the massive and dynamic interrelation of processes and objects, beings and things, patterns and matter” (p. 2-3). Media and information—it is questionable if one is truly separable from the other—are affect-oriented networks that entangle living subjects. Media are material and immaterial, ordering and disordering. Media ecologies act as the channels through which culture distributes and constitute a vast array of mutually inclusive (although not always harmonious) environments (Fuller, 2005). Rather than a homogenous grouping of similar technologies, Fuller states that the individual mediums comprising ‘media’ (such as computer games) are far from stable categories: each medium is a tangle of agents acting within a dynamic ecology. This assumption leads away from teleological frameworks that rely on formal classification and moves towards the assumption that all media assemblages and networks are both active and reactive, simultaneously. Using this framework, we can say that gamespace does not come first. However, neither do gameplay or player. All are connected in an ongoing process—they are *connective*. What matters is their identity, which is determined by how they

express themselves and act via externalities. While gamespace is expressed in multiple ways, I find it useful to begin with how it sustains meaning and produces knowledge—how it is agential.

Gamespace and Agency

The basic definition of an ‘agent’ is one who acts. The term has recently found a home in the framework sometimes referred to as “new materialism,” which holds that non-living parts of a network or assemblage can exert just as much force as living agents in the process of (de)territorialization and (de)coding (Bennett, 2010; de Landa, 2006; Latour, 2005).⁷ This framework is useful for looking at gamespace because it assumes constructions of space are constantly engaged with processes of internal structure and outward expression. For example, gamespace is internally configured through computational code; the changes in this code determine the structural boundaries of this space and the position of players and non-player characters (NPCs). The space’s outward expressions—or how the gamespace changes and reacts to activities in terms of semiotics and aesthetics—are processes of coding and decoding. Territorialization and coding processes configure player and gameplay. There is no better way to illustrate this than looking at how contingency enables spatiality, and spatiality determines gameplay.

Games’ rule systems are built of game mechanics, which are “methods invoked by agents, designed for interaction with the game state” (Sicart, 2008). Cook (2006), a game designer, states that “game mechanics are rule based systems/simulations that facilitate and encourage a user to explore and learn the properties of their possibility space through the use of feedback mechanisms.” Arrangements of mechanics, distributed and contextualized through gamespace produce contingencies (Malaby, 2007). The concept that games are, at their heart, arrangements of contingency has freed game studies scholars to move away from analyzing games through genre classifications. As proposed by Malaby (2007), games are: “dynamic and recursive” in that they reproduce their form over time and space, but also encode within themselves the pattern for change. Malaby suggests that on the surface, games are a series of processes based on *contrived contingencies*; outcomes that, theoretically, can be contained and constricted through the rules of play. Contingencies are part of the virtual/actual circuit of gameplay: they determine what could be and what is. In this way, contingency drives gameplay and also determines its outcomes. However, contingencies are rooted in spatialization and distributed by gamespace.

Spatially, contingencies act as territorializing and coding agents; they are the conditions of ludic spatiality during play, and triggering contingency changes both the inner and outer

⁷ Drawn from assemblage theory and used in network-driven approaches to sociality, processes of territorialization “either stabilize the identity of an assemblage, by increasing its degree of internal homogeneity or the degree of sharpness of its boundaries, or destabilize it” (de Landa, 2006, pp. 11-12). While territorialization concerns internal structure and identity, coding refers to outward the outward symbolic expression of a network or assemblage such as language, color or scent in the animal world (de Landa, 2006).

expressions of the game. Internally, contingencies alter or maintain coded space. Outwardly, the aesthetic of the game is also altered or maintained. Change or continuity is based on whether potentials, enabled via contingencies, are actualized. Stated previously, gameplay is a desire to navigate contingencies and to explore and conquer spaces of possibility (Voorhees, 2013). The game's architecture provides push-back to player actions while players push forward (Malaby, 2007). Voorhees (2013) notes that gameplay is a series of control-oriented actions contextualized by space and spatial narrative ensconced in game architecture. The circulation of control in gameplay is locational, and can't exist independent of a gamespace, where possibility is potentiated. Control, from the player's standpoint, is located in the liminal space of the interface: openings, enclosures and protocol are all spatially distributed and functionally enable the act of gameplay (Galloway, 2006). From the game's standpoint, control is exerted through space—the locations and distributions of contingencies impact how the interface responds to activity. Both interface and gamespace determine the course of gameplay via territorialization and coding.

The locations and contexts of mechanics are dependent on spatial arrangements within gamespace. These arrangements create spatial narrative: twists and turns that the player must navigate and negotiate (Jenkins, 2004). Mechanics and contingencies are close to what Nitsche (2008) calls “embedded agents,” or non-formal qualities that direct how gamespaces are active in the context of gameplay. Contingencies, acting as embedded agents, directly relate to the “the informatics of control” circulated via interface and gamespace (Galloway, 2006). In every game, rule systems and protocol must be contextualized and, most importantly, navigable. Contingencies require that gamespace is bounded off by an interface, which sets the spatial conditions of protocol and play (Galloway, 2006; Jorgensen, 2013). The productive state of gamespace articulates unique configurations of spatiality: how the player responds to contingency is a form of spatial production. Thus, contingencies enable multiple configurations of gameplay across gamespaces.

Gameplay, rooted in desire, requires different configurations of spatiality. Contingencies produce spatialities centered on *where* the interface is located in terms of gamespace. The interface can be moved forward or backward in terms of visibility (Jorgensen, 2013). Galloway (2006) points out that in information-heavy games like *World of Warcraft*, the interface overwhelms the aesthetic gamespace during intense encounters; the “world” fades to the background while spatialized information, the visual confirmation of gameplay, becomes the center of attention. In these types of games contingency is heavily influenced by informational aspects of the interface. In other games, the interface is tantamount to the gamespace, itself. For example, *Tetris*' mechanics dominate the space, and extraneous spaces that add any narrative beyond informational contexts are sparse. In each case, contingencies configure different modes of spatial experience on the part of the player. Contingencies produce spatialities, which provide context and meaning to gameplay via interface and gamespace. In short, spatiality shapes gameplay and sustains the gameworld.

In her study of gaming interfaces, Jorgensen (2013) points out that interfaces informationally, visually and physically constitute the “gameworld,” or informational and narrative aspects of games tied to “navigational world representation” (Jorgensen, 2013, p. 56). Gameworld, as a construct, focuses on spaces directly tied to the game’s mechanics and logics: the interface. For example, the gameworld may include areas that do not correspond with play “such as the tops of buildings that cannot be reached” because these spaces are interfacial, meaning they give context to interaction and bound off spaces, but they are not the direct space where play takes place (Jorgensen, 2013, p. 68). For Jorgensen, gamespace is a “wider category” that includes conceptual spaces and distinct spaces (p. 67). The interface is a spatial construct that facilitates interaction with gamespace by providing contextual and informational elements. The interface, at various levels, shapes spatiality. Typically, the interface has been relegated to graphic user interfaces, but as Nitsche (2008) points out, the interface constitutes a large part of the “distinct spaces” of gaming: the mode by which the player navigates physically, visually and mentally. In terms of expression, the gameworld interface is a primary function of territorialization and coding: it gives structure and identity to contingency and outwardly marks what areas of gameworld are open and closed.

Gameworld interfaces contextualize what a player is doing in simple and complex ways. For example, simple spatial agency is exerted in puzzle games like *Tetris* and *Bejeweled*, where space is literally the source of game mechanics. Spatial arrangements are the complete framework of gameplay, and in these games, space *is* the interface. Jorgensen (2013) points out that the interface can be relatively easy to spot in many games (think the health bar and ammo count in an FPS); however, it can also disappear into the aesthetics of the coded gameworld. One example of a transparent interface is the stark desert world of *Journey*, where the aesthetic space of the world embeds all the cues for player interaction. *Journey* has been an object of research for a variety of reasons: the aesthetics of narrative space (Moltenbrey, 2012), the unique multiplayer experience based in exploration and cooperation (Kirkpatrick, 2015) and the emotional aspects of navigating narrative spaces (Van Nuenen, 2016). However, *Journey* is equally unique in its lack of any discernable informational interface (Moltenbrey, 2012). *Journey* is a game where aesthetics are information, and the environment is the contingency.

Controlling *Journey*’s protagonist in the stark, desert world does not involve player levels, skill trees, inventory, health bars and gold or other resources. The game is navigational contingency at its purest: all mechanics are contextualized through the aesthetics of the gamespace itself. The gameworld interface is arranged to promote gamespace aesthetics to the level of gameplay. Space and protocol are indiscernible, and the player’s desire and identity are centered purely on navigation. While many games set the protagonist apart from space, in *Journey* the individuality of the player fades into the gameworld. The avatar is also a spatialized contingency, communicating and communing with the world that surrounds it rather than extracting resources or killing. Identity is reduced to locational position in relational to the world or another player. To know who you are, you must know *where* you are. Kirkpatrick (2015),

describes the multiplayer aspect of *Journey*: “it is also possible to lose certainty as to which of the on-screen characters is ‘me,’ since [players] are basically identical in appearance. Here, it is not the social connection that fascinates but, as with art, the process through which we might attain it (but are thwarted)...the overriding feeling we have at the end is one of wonder” (p. 520). Players drift through the gamespace, blending into the aesthetic. Other players act as part of the environment, playing with notions of individuality in the context of vast spaces. Similar to landscape photography’s effects on viewers, the individuality of the player is rendered insignificant by the impact of gamespace on both the level of protocol and aesthetics. *Journey*’s spatially de-individualizing aspects define its gameplay; its ambiguous, aesthetic spatiality is what makes it a touching and emotional experience (Moltenbrey, 2012; Van Nuenen, 2016). *Journey* brings spatial aesthetics to the forefront and employs them as interface: contingencies shape and form the spatiality of the player while also affecting the player’s experience of spatiality—a double-sided coin of spatial production. Thus, *Journey*’s gameplay is based entirely around spatiality-as-experience.

Journey is a unique game. The spatial agency of the gameworld-via-interface, in the traditional sense, is illustrated in fighting games. Games like *Street Fighter*, and more recently *Injustice: Gods Among Us*, have a combination of informational interfaces, such as a health bars, and more subtle spatial mechanics that direct spatiality: namely, the combo. Fighting games are, for the most part, based in mastering a string of attacks that successfully bypass an opponent’s defenses and take away large amounts of health: the combo moves the game along. Combos also produce narrative elements. Many fighting games, like *Street Fighter*, feature episodic matches that isolate overall narrative to individual bouts. The “story” of the match is largely told in the combos performed and the resulting wins and losses. However, in the *Injustice* series, combos trigger cinematic sequences and dialogue that ensures matches are contextualized in terms of the overall narrative. For example, a combo performed by Supergirl during a match reaffirms her role in the complex narrative of warring superheroes. In *Injustice* combos serve as both contingency and narrative in the context of fighting games. The combo in both games is a form of spatiality. However, *Street Fighter* codes combos as anti-narrative while *Injustice* codes combos as spatial narrative. Both serve as an example of how gameworld interfaces spatially enable and embed mechanics. Contingencies, like combos, are part of the ongoing circuit of spatiality that comprises gameplay. Gamespace actively territorializes the mechanics, producing a degree of internal homogeneity, while the mechanics produce spatial changes that amount to coding, or externally shaping gamespace’s aesthetic and experiential qualities. Internal homogeneity, in this case, simply means that mechanics spatially confirm that the player’s actions are within context, rather than out it.

An example of destabilizing territorializations, which increase heterogeneity, are glitches or hacks that cause mechanics, and players, to act out of context (such as holes appearing in corrupted gameworlds, causing the player to “fall through” the floor). No floor, no combo, no gameplay. Gamespace, through the gameworld interface, sustains gameplay by internally and

externally contextualizing spatiality. In short, combos are only productive through spatial knowledge on the part of the player as the gamespace deploys territorialization and coding functions via contingency.

Combos also extend to physical spatiality. Their execution requires physical spatial knowledge (in terms of controller fluency) and player embodiment through the coded gamespace. In order to land combos and advance the match, players must constantly be aware of their position in relation of the edges of the map and their opponent's actions. The connection between physical spatiality and gameworld are so strong that many competitive players eschew the traditional controller in favor of arcade-style joysticks whose physical layout better matches the coded spatial qualities of in-game combos. Control and agency are based in gameplay, which is rendered productive through the territorialization and coding functions of interface and gamespace. Winning and losing in games like *Street Fighter* depends entirely on digital and physical spatiality and the coding and territorialization of gamespace's physical and coded aspects. Fighting games provide a traditional approach to looking at gamespace-as-agent. However, new mobile technologies are changing the way games are designed and played, further muddying distinctions between digital and physical spatiality.

Most traditional studies of the gameworld interface examine where the interface is located in the context of gameplay. However, the question of where the interface begins and ends becomes a slightly different issue in the case of location-based mobile gaming/games (LBMG) and pervasive games (de Souza e Silva, 2008; Montola et al., 2009). The gameworld interface in pervasive games is not just coded worlds, but code distributed *through* the physical world. Pervasive games do not necessarily create new worlds, rather they, along with the player, act as a ludic agent. Pervasive gamespace recycles quotidian spaces, altering their use values and their social construction. Streets become a game board, spatiality becomes ludic and physical navigation contributes directly to the arrangement of code on the screen (Gordon & de Souza e Silva, 2011; Hulsey, 2015; Sutko & de Souza e Silva, 2008). In these types of LBMG—*Pokemon Go!* being the latest success—mobile devices constitute the interface and physical space is the gameworld (de Souza e Silva, 2006). Here, gamespace could be interpreted as the city or countryside through which players move as new navigational routes are expressed via the mobile interface. The gamespace, then, is mobile and shifting, a network of interfaces and agents occurring wherever the game is played and leading wherever the game is going. The mobile interface stakes out what spaces are territorialized and coded by gameplay, effectively converting quotidian spaces to gamespace. LBMG directly alters the spaces where they occur by shifting contexts and altering spatiality through ludic processes of decoding and territoriality. Furthermore, they change the actions and identities of the players via spatialization.

Strava, a location-aware biking application, requires players to map their routes and competitively follow others' routes (Ward, 2014). Times are recorded and players can compete against past times on any given route by any given player. Players form clubs and compete for leaderboards (Sparks, 2013). They also share their biking-related

information, and they accrue social capital within the community by sharing this information (Glaskin, 2013). These bikers, recoded as players, also provide revenue and data to *Strava* (and other parties) by virtue of their altered spatial practices (Glaskin, 2013). The outcome of *Strava*'s style of gamespace is usually a very detailed map of a person's biking life as a variety of minigames distributed through a variety of spaces, each with their own memories, rewards and motivations. In the case of *Strava*, players are cyclists and their mode of social capital is literally interactive cartography. Their age, likes, dislikes and social network is attached directly to their life as a cyclist. This also identifies *Strava* as a data-driven apparatus which utilizes digital objects to ensure and track actual player movements. In turn, this informs consumer predictions on the part of those consuming the data produced. *Strava* tracks a live spatial simulation, much like GIS systems; however, instead of computational models, biological actors become living models engaging in an active ludic simulation. The bodies of bikers, and information about their quotidian lives, are deterritorialized through *Strava*'s restructuring of space.

Strava codes, territorializes and revises everyday spatiality. It acts as a spatial agent as much as it is also a space. *Strava* relies on two methods to render its specific iteration of gamespace functional: the first method capitalizes on desire by using a mobile interface that territorializes spaces in favor of gameplay; the second method involves using gameplay as a decoding function to provide a new player-based identity to bikers. While these acts are perhaps enough to qualify gamespace as an agent, the question arises: what mechanism prompts territorialization and decoding? In other words, how and why are bodies decoded through spatial agency? The answer lies in how gamespaces' nodes, connective points of mechanics, materials and actors, are bound through the archival of gameplay.

Gamespace as Archive

Gamespace acts as the archive of player's actions and experiences. Foucault (2010) used the term 'archive' as a designation of traces left by a specific culture at a specific moment in time. In short, the traces of discourse (statements and visibilities) are embedded in the archive, which is itself an ongoing process that is neither culturally nor politically impotent. For Foucault, the archive is an active agent in formations of social identity and the distribution of power and knowledge. Archives are also spatial; they serve as heterotopias: sites that are connective to different times and places (Foucault, 1984). Player data translated via the interface serves as a living archive that provides an identity to the 'body' of the player and traces how that body exists. Data exerts power over and through space, tracing the relationships players form with the gamespace and all elements distributed through it. Player data includes maps, equipment, inventory, resources and achievements. Player data relies on the interface, which is both aesthetic and informational. Interfaces are spatialized data: they are spatially situated in the liminal area between gameworld and gamespace, proper. However, we must consider how the interface's arrangement of data configures the gamespace as an archive.

Weapons, resources, explored areas, secrets and enemies are all archived via the interface. Graphically and informationally, gameworld interfaces serve as a living archive that continually collects and stores player information. The actions the player takes as they engage in contingency is arranged, filed and accessed. Player information is so important that Medler (2011) maintains that player data circulated via the interface is actually a reward mechanic: it provides pleasure because it charts every action, positive and negative, that the player has ever taken. Without the archive, gameplay has very little value after it has occurred. Basic archival data can include points, time and points-in-time. This temporally warped data is meta-spatial and most often occurs in games that have simpler spatial mechanics such as *Tetris* and *Donkey Kong*. However, games increasingly archive space and spatiality in far more complex ways: detailed maps and locational information provide context to the player's journey. Inventory is arranged in a way that spatializes loot, an aesthetic display of riches or paucity that kindles desire. Player data consists of "defined reports driven by recorded gameplay data, displaying the achievements earned and actions performed by players but exist outside of gameplay...The motivations that compel players to play, such as the feeling of mastery or the urge to explore, are confirmed by various dossier variables"(Medler, 2011). The archival functions of gamespace are overlooked frequently; however, archived data and player information—the informational aspects of the interface and gamespace—are inherently tied to spatiality and exist in the liminal areas between aesthetic and coded space. In short, they form a heterotopic archive.

The spatial liminality of player data can be put to use to understand how gamespace extends beyond architecture and contingency. Gamespace is a prime example of Foucault's (1984) definition of 'the site,' a modern spatial archetype rooted in computation: "The site is defined by relations of proximity between points or elements; formally, we can describe these relations as series, trees, or grids." For Foucault, the site entails that space is far more than just what people move through; sites entail "the storage of data...the identification of marked or coded elements inside a set that may be randomly distributed, or may be arranged according to single or multiple classifications." Gamespace as 'the site' encompasses a variety of relational connections of spatiality and the resulting data, both of which sustain and inform gameplay. It also suggests that gamespaces act as *heterotopic* archives contextualizing acts of gameplay and individualizing the bodies of players.

Connections between games and heterotopias have been suggested by other scholars (Kücklich, 2009). Gamespace functions in a heterotopic sense because it contextualizes both the player's in-game "body" and the data that body generates as it plays. Foucault (1984) states: "The heterotopia is capable of juxtaposing in a single real place several spaces, several sites that are in themselves incompatible." Also, Heterotopias are most often linked to "slices in time" that "arrive at a sort of absolute break with their traditional time." Finally, heterotopias "always presuppose a system of opening and closing that both isolates them and makes them penetrable."

The juxtaposition of space, time and data—while being both open and closed—simultaneously fits the definition of agential gamespace. Time, space, movement and stillness are recorded by heterotopic gamespace and displayed via the interface. Thus, gamespace acts as a primary agent in sustaining player identity by acting as an archive.

Heterotopias exist as archival spaces across diverse times and places. The same heterotopic space can serve archival capacities even as culture and societies change the physical space (i.e. a museum or graveyard). This cultural function is heterochronous. In gaming, for example, *Far Cry: Primal* (hereafter referred to as *Primal*) is an open world, first-person shooter (FPS) produced by Ubisoft that sends the player back to 10,000 BCE. Both the space and the player's data evoke an imagined archive of early human experience: ancient flora and fauna, rudimentary tool building and simple architecture. More importantly, all player data serves to confirm this temporal jump. So, the contingencies of tracking and hunting a Mammoth serve as ancestor simulation, a quick jump back in time. Player data provides a compact, spatialized narrative of exactly what “ancestry” entails—a mammoth skin, bone and animal fat are displayed in the inventory and the mammoth is marked on the map.

However, these heterochronous spatial imaginaries—such as building huts, clubs and spears for hunting—are also coded as contingencies found in most modern FPS games. *Primal*, while spatially and aesthetically existing in the Stone Age, is also a recursive archive of modern game developments. For example, a cave with a campfire is aesthetically just that, but also linked with contingencies of saving games, territory expansion, new weaponry resulting from experiences gains and other common contingencies in computer games. The campfire also provides an inventory, a bank and displays all possible loot and building options for the network of camps and campfires that can be traveled to. Woven throughout the gamespace, *Primal's* interface effectively traces the player's movements, economic motivations and past actions—it works as a node to access past spatialities. When players view this data, it ensures the heterotopic archive sustains breaks in time: gameplay is laid out and recounted in all its spatial glory, and that glory is simultaneously 10,000 years old *and* brand new. Heterotopias are convergent spaces, the site of actual and virtual contingencies which are networked to other spaces of data and contingency. They continually actualize spatial agency in context with gameplay, and also resituate all past gameplay into identification in the context of gamespace and identity on the part of the player. In other words, the player can only confirm what they are playing by consulting the archive—their active subject position is confirmed by the discursive visibilities provided by the gameworld interface and gamespace. The archive also determines their future: they cannot desire new navigational options unless they confirm where (and when) they have been. Their position as a struggling human during the Stone Age is affirmed by the results of gameplay and not gameplay itself.

The heterotopic archive does more than alter behaviors in the context of data-driven heterochrony. Archival functions circulate space as a primary agent, allowing the player to exist

as an individual in multiple times. The ruptures produced by archived spatialities individualize the players by spatially situating them in a contextual process: the archive serves an *individuating* function. Individuation is the set of transductive processes that give structure and identity to an individual biological or synthetic unit, and it assumes that an ‘individual’ is never an end-state; it is a set of ongoing informational processes that give them a temporarily distinguishable form (Simondon, 1992). Simondon (1992) states that individuation is multiple processes that render ‘individuality’ an unstable category of constantly shifting relationships. Any individual is composed of ongoing process of individuation, and can only be understood from the standpoint of these processes. Simondon states that “individuation does not exhaust in the single act of its appearance all the potentials embedded in the preindividual state” (p. 300). Individuation never stops, it continues to actualize and potentiate change in a seemingly stable “individual.”

A constant flow of information drives an “imperative to individuate” by actuating multiple potential states of being through *transduction*—the circulation of specific, but temporary, relationships. However, transduction is an immediate set of relationships. Past and future are rooted in, and understood as, ongoing individuating processes. To identify an ‘individual’, one must trace what potentialities preexist, the current state of transduction and what information is left behind (Simondon, 1992). Thus, individuating processes are fundamental to territorializing and coding a perceived individual unit: they create a false historical stasis while accessing other possibilities. In the case of a player, the heterotopic archive provides a networked tracing of that player’s past movements and actions, a history that encompasses hours, seconds or years. This history is the sum of individuation, a spatial conformation of gameplay, which acts as transduction. Gamespace provides all preexisting conditions of spatiality, spurs transductive gameplay and leaves traces and translations that give the player a temporary identity rooted in past and future spatialities. We can only understand transduction by examining individuating processes—so we need gamespace to identify gameplay. Immediate spatiality, the ongoing process of transductive gameplay, does not offer a history or future for the player. Only the present is apparent during gameplay and does not provide an imperative to individuate. Gamespace sustains the temporary state of “a player” with a past and a future, an individual whose potential spatiality sustains gameplay.

Thus, the player gains individuality via the heterotopic archive; they become aware of the multiple processes that resulted in their temporary position. They are aware of transduction in the moment preceding gameplay and the moment after. For example, a player knows where they must go, what they need to find and what enemies they will face from accessing the archive. Games like *Primal* also link the current gamespace to multiple other gamespaces across time, letting the player know how to exert certain elements of spatiality depending on the gamespace. When viewed as archives, gamespaces are recursive functions that store repetitions of contingency across time and space. Each aspect of spatiality archived and displayed has series of repeating protocol that inform how a player understands the act of gaming and their identity

within a single game and across multiple games. For example, *Primal's* gamespace and interface recalls multiple generations of *Far Cry* games, and hundreds of FPS games. These simultaneously act to shape the player's spatiality by archiving transductive gameplay across games: one archive spreads to and influences another. So, not only can the player confirm they have played *Primal*, they can also reconfirm the experiences via other gamespace archives. The archive allows them to maintain the subject position of player across games; it enables the networked identity of a player in one game and across many.

When understanding relations between player, gameplay and gamespace these processes must be viewed as a ludic ecology, where perceived end-states, individuals and categories are only visible from exchanges of information and energy. Gamespaces are connected processes of individuation embedded in a living archive. Individuating spatialities constitute a heterotopia that enables gameplay and provides agency and identity to the player. A player's identity relies on the potential spatialities, spatial transduction (via gameplay) and heterotopic archival. These processes also must be archived in order for any classification to be reliably tested. Gamespace is the summation of these processes—it sustains contingencies to act and also archives all actions taken. Because each individuating process (and potential end-state) cannot operate in absence of the other, gamespace must be viewed as part of a complex ludic ecology—one where formal ludic processes are not clear cut and must be seen as a networked series of actions that are interdependent on one another.

In conclusion, I have argued that gamespace acts as an agent by dictating and contextualizing the spatialization. I have also shown how gameplay is a desire to navigate contingency and possibility. The actualization of contingency is, in fact, spatiality. The gameworld interface and gamespace both serve as active agents constructing spatiality. Furthermore, the identity of the player is also produced and sustained via individuation. Gamespace serves as a heterotopic archive that provides the player with a future, in terms of potentialities, and past in terms of player data. While immediate actions of gameplay serve as transductive relationships, the continuity of a player's identity is maintained by the archival processes across games. This argument adds to game studies by suggesting we consider gamespace and spatiality to be primary agents in the "assemblage of play." Furthermore, we should understand that gameplay's non-spatial aspects are located along the axis of desire and control. The active component of gameplay, navigating contingencies, is the result of spatiality. Future research should focus on gaming as a complex network, and conceptual definitions concerning aspects games and play should be rooted in the affective capacities of the assemblage and/or network being examined.

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