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GAME, PLAY AND MATERIAL

An Introduction

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Timo Schemer-Reinhard / Arvid Kammler / Tim Glaser

GAME, PLAY AND MATERIAL

This special issue of Spiel|Formen investigates the materiality of games and play from an interdisciplinary perspective.[1] It is a contribution to the growing field of *Material Game Studies* which encompasses research on themes of corporeality and materiality in relation to games.
Historically speaking, attending to the material dimension of games could only emerge as a novel research approach after the early study of digital games glossed over games' physical correlates in favor of analyzing their rules and narration. In contrast, board game researchers always had to attend to the actual *matter* of games, as Alexander de Voogt clearly states in his editorial for the first issue of Board Game Studies:

> "If we consider a context with players, boards and pieces, and rules, it appears that these elements cannot be separated for a complete understanding of a board game. The rules may influence the board and vice versa. The players may determine the shape and kind of boards and the specificity of the rules."
>
> (de Voogt 1998, 6)

It took digital games researchers quite a while longer to arrive at the same conclusions. Only after the intermediary step of theorizing games as surface phenomena of underlying code structures did going "deeper, to the metal", present itself as the logical next step, as the blurb for MIT Press's book series on the study of gaming platforms states.[2]

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1 The original German version was published as an issue of the journal Navigationen with the title Spiel|Material (GamesCoop 2020).

2 Cf. http://platformstudies.com/.

Since then, the understanding of games' material aspects has broadened considerably. In their diagnosis of a material turn in game studies, Thomas Apperley and Darshana Jayemane (2012) group the academic engagement with the topic into three sub-fields: *platform and software studies*, which examine the material foundations of digital games; the s*tudy of digital labor*; and *ethnographic explorations of game situations and cultures in their materiality*. These three fields, however, do not perceive themselves as being part of the same paradigm. Miguel Sicart (2014) calls on designers in particular to focus on the materiality of play. In doing so, he argues for a play-centered perspective that corresponds to the project of *Play and Game Studies* centered around the research group GamesCoop in Siegen, Germany. Both approaches advocate for expanding the notion of game studies to include a whole gamut of playful phenomena not based on rules. Despite the importance of his message, Sicart's call to pay attention to the materiality of playful phenomena remains vague and does not address how this could be achieved. It comes as no surprise, then, that the relevant efforts are few and far between and do not follow a unified systematic approach to the matter. Following the German release of *Spiel|Material* (2020) that this reworked and expanded issue is based on, Beil et al.'s (2022) edited volume *Playful Materialities* took up the baton,[3] highlighting forms of entanglement between game culture and material culture that range from chainsaw-shaped game controllers to playable museum experiences, and Lego-based hybrid games. Nevertheless, there is still a need to expand the theoretical groundwork for reflecting on ludic materiality and to develop and refine the methods for exploring it. The present volume represents a further step in this direction. Its aim is to examine the relationship between play and materiality in its manifold facets, the underlying premise of all texts in the volume being that 'playing' usually means 'playing with material objects' of some kind.

From a game-making perspective, the design of playful activities is typically linked to the design of game materials. Conversely, games themselves can generate an output of material products – think, for example,

[3] Quite literally so, as Hanns Christian Schmidt, who also contributed to *Spiel|Material*, went on to edit the *Playful Materialities* volume.

of the Surrealists' attempts to translate processes of the subconscious into art via the practice of play. However, neither game materials nor products of playful action necessarily have to be present as physical objects. The computer game MINECRAFT (2009), for example, is centered around moving and creatively arranging digital building blocks. It thus vividly demonstrates that games are performative and consist of practices that can be thought of as fundamentally material, that is, as movements of bodies.[4] Building on this, Pablo Abend and Max Kanderske's paper examines Quantified Gaming, self-tracking and how individual actions and operations occur within and are enabled by material arrangements. These arrangements can transform into practices and those in turn are stabilized to become part of the larger framework of gaming culture. This is complemented by Felix Raczkowski's analysis of Theming and Materiality in which he examines how the game design process is profoundly informed by different materials. By looking at the relationship of game design and materials employed in the making of games, Raczkowski challenges the generalization that games can adopt any theme without impacting their core gameplay, by analyzing the presumed disconnect of theme and game design materiality.

Across cultures and geographical boundaries, materials that are part of an aesthetic of play typically have in common that they are constitutively ambivalent. They are both malleable and stable: the sand of the sandbox, the building block, wood, as well as plastic, the material that allows for an unparalleled variety in shape and color. Crucial to the brief history of game studies are the simulated, virtual materials of digital games, which exhibit practically unlimited malleability. During the discipline's infancy, which has been shaped by literary studies, digital games were still discussed as spaces of immaterialization, but at the same time always with recourse to material metaphors and spatial narratives, such as amusement park attractions. Looking at the ontogenetic qualities of light in games, Arvid Kammler's contribution examines the superimposition of light spaces on the threshold of the display in the form of emitting and reflecting light and

4 The material character of practices is also emphasized in practice theory. See Reckwitz 2003 and Schatzki 2006.

the materialities of light encountered by players. Materializing as a representation of sand, water and spaceship corridors, Kammler shows how light, understood as the basic building material of games, appears only as a reference to other artifacts.

In recent years, however, the material and the body have come to the fore as central categories when engaging with digital games. Today's users of digital games do not disappear into virtual worlds composed of frictionless and freely constructed spaces. On the contrary, at the very moment when the discourse on cyberspace expected the detachment from physical space, materiality returned in force. After all, tremendous efforts must be expended to maintain virtual spaces. The digital worlds of light and memory states require rare earths, which are wrested from the ground through human labor, as well as electrical energy, which often means burning fossil fuels like coal and natural gas.[5] In the early nineties, Friedrich Kittler titled his famous essay *There Is No Software* (1992). Today, in light of the ongoing semiconductor shortage, his aphorism intended to foreground the material foundations of all computing seems to carry a threatening undertone.

In addition to this material side of the digital, it is becoming increasingly clear that analog parts of gaming practice are by no means disappearing. The hard core of today's *gamers* are those who identify strongly with their hobby and are competitive and technologically interested. Far from disregarding the materialities of gaming, these players ostentatiously display their affinity towards gaming culture through specialized hardware. Not only is this hardware materially conspicuous with colored lighting and an expansive design; gaming chairs, gaming mice and gaming keyboards are also characterized by being designed with the corporeality of the user in mind, i.e., to reduce the negative consequences of a largely motionless, sometimes unhealthy activity. The keys are spring-loaded, and the chairs are cushioned for comfort. Gaming thus also feels good

5 "Dross of the Digital" (Schlacken des Digitalen) is the poetic title of an undergraduate seminar offered by Thomas Hensel in Siegen in 2008 that captures this dimension of the digital.

physically, while it becomes a form of luxury on display.[6] Combining the analog game board, the digital playground and cinematic playfulness, Andreas Rauscher develops the concept of mise-en-game as an expanded view on the history of cinema with a focus on transmedial perspectives. Rauscher explores arcade games, material adaptation of board games, and hybrid world projections of role-playing systems as environments for the materialization of this mise-en-game.

Through online communities, board miniatures and card games are also experiencing something of a renaissance, with communities of enthusiasts sharing recommendations and knowledge. In the same vein, analog game companies use crowdfunding to create the financial basis for the production of games. Long before their eventual release, these proposed concepts of game rules and aesthetics have to attract enthusiasts who place their trust – and money – with them. Here, materiality gains importance as an attraction: high-quality prints, wooden figures and plastic injection molding compete for the favor of potential customers. Board game studies, like the fledgling analog game studies journal, explore such phenomena, with most work consisting of material analyses.[7] These approaches are heavily archaeologically and ethnographically influenced – if they are not part of these disciplines anyway. In this sense, Claudius Clüver investigates the affordances of game/play objects such as dice, cards, and boards. By examining how the sometimes very different material elements of games relate to each other as game forms, Clüver develops the notion of play-form as a taxonomy to further analyze the composite character of games and their object-affordances.

MATERIAL, BODY AND WORK

Over the last two decades, the material of the digital has gained significance in the realm of hardware and interface development, especially through the intertwining of actions in physical and digital space. In the

6 Cf. the communities: reddit.com/r/battlestations and reddit.com/r/mechanicalkeyboards.

7 Cf. http://analoggamestudies.org/.

2000s, for example, users of *Nintendo Wii* and *Microsoft Kinect* began to control simulated game objects with their body movements; over the following decade, touchscreens and the adherent finger movements of scrolling, swiping, etc. became the dominant mode of interaction in the field of mobile (game) media. This intervention of the player's body in simulated spaces already anticipated the renewed enthusiasm for AR and VR technologies in the 2010s and added the crucial category of gesture to the repertoire of forms of digital gaming practice (Apperley 2013).

Bodily interactions with virtual spaces require materially present sensing devices and an extension of digital measurement into the physical environment of the users. Consequently, the goal of creating the illusion of a deceptively real artificial world without material limitations requires technologies that are all the more integrated into the physical environment. VR and AR interfaces, for example, must locate themselves in relation to the space in which they are to be played. Inertia sensors and object recognition algorithms are among the tools that make the material environment tangible in machinic terms and facilitate a relatively well-functioning immersion in the simulated world. Here, the dialectic character of virtuality becomes obvious. The connection between player and environment is not severed – as is often feared in terms of cultural pessimism[8] – but rather technologically intensified, becoming more complex, multilayered, and aesthetically richer in the process. The field of Game Studies is thus faced with the task of taking this enrichment into account theoretically and methodologically. In this context, the expansion of corporeality through new connections and layers is not a new idea. Donna Haraway's (1985) *cyborg* is already a decidedly corporeal-material hybrid between human, animal, and machine. In Félix Guattari's (2019) ecology, connections in the material environment are equally crucial for a similarly rooted perspective on the individual, society, and nature.

8 This idea can be traced in both the discourse about computer games and the danger of escapism, as well as in the technical-utopian concepts of immersion - in which the (supposed) merging of bodies with technology / virtual worlds is accompanied by a turning away from the 'real' world and its environments. For a critical reading on the concept and history of Immersion, see: Belisle 2016.

Digital enrichment is not limited to private spaces. Since the triumph of handheld consoles, games have accompanied and accelerated the development and dissemination of mobile media that can be used virtually anywhere – from the *Nintendo Game Boy* to the App Store. Finally, with the emergence of the practice of digital treasure hunting known as geocaching, locative media have also been adopted for gaming purposes in public spaces.

Various terms have been used to describe such games: *location-based games* refer to games in which the location serves a special function within the game's context; *ubiquitous gaming* emphasizes that the act of playing can happen everywhere; *urban games*, finally, are those games whose practices relate to urban spaces to a particular degree. An inventory relevant to this has appeared in the special issue *Playin' the City 2016* (Ackermann/Rauscher/Stein 2016) of the journal *Navigationen*. As if to confirm the relevance of the topic, the same year saw the release of the highly successful Android and iOS augmented reality game POKÉMON GO (2016), which both spiritually succeeded and commercially exploited many of the ideas pioneered by earlier, more experimental *urban games*.

Traversing a space, acknowledging one's own physicality as well as the materiality of the input interfaces, and empathizing with the simulated materialities are thus important aspects of the reception of digital games. Accordingly, computer game studies are increasingly focusing on the materiality of ludic experiences. In 2009, the cover of *Navigationen* issue *It's all in the Game* (Beil et al. 2009) already featured a skyline of urban high-rises in all their aesthetic-material impregnability that could be felt even through a game screenshot. In addition to the aesthetic corporeality of digital materials as well as the corporeality of perception (aisthesis), the materiality of the interface and its conditions have recently come to the fore. Interface studies investigates how forms of control emerge and are enculturated. Thus, the focus is less on the individual games and more on the material conditions of playing itself.

Timo Schemer-Reinhard's contribution sheds light on the social practice of sharing that, in the case of the *PlayStation 4*'s DualShock 4 controller, has been embodied in a single button. Schemer-Reinhard analyzes

the enculturation and conciseness of the button press to show how the practice of sharing has changed in the milieu of digital media and games. This approach is closely aligned with the ideas forwarded by *Platform Studies* scholars. Their approach towards studying games centers around the question of how concrete hardware and software platforms shape the games developed for them, or what mutual relationships exist between game and hardware design (Bogost/Montfort 2009). At the same time, distribution platforms, social networks, and streaming providers are also becoming possible research interests, as they contribute decisively to the genesis and evolution of game and game-related practices, raising questions of economic and social control.

Developing computer games means working *on* material things (both physical and digital) and *making use of* material things in the form of tools and devices. It is also material in the sense that it requires the physical exertion of human bodies. The various physical qualities of game design work were analyzed in the *Navigationen* issue *Game Laboratory Studies* (Beil/Hensel 2015) through the lens of actor-network theory. Here, the question at the outset was what objects, structures, or elements are used in the making of digital games and how they relate to one another. The result is a kaleidoscopic analysis of creative work in game studios. The present issue expands this field of investigation by looking not only at professional game studios, but also at other – historical and current – sites of creative game making. By means of Lyonel Feininger's *Block-Eisenbahn* (block train) Ina Scheffler exemplifies how toys served to illustrate experiences of material and color in the context of the Bauhaus. Since models highlight various features of a represented object while simultaneously being not an exact reproduction, toys can function as a starting point for didactic and educational purposes. Hanns Christian Schmidt connects the Bauhaus to NINTENDO LABO by exploring the Bauhaus' material studies courses as fields of experimentation and relating them to composite media experiments like NINTENDO LABO. NINTENDO LABO, Schmidt argues, allows players to assemble the game console in interesting new ways using

cardboard, demonstrating new pedagogical approaches, the simplification of artistic material, and the constructiveness of playful and experimental modes of exploration.

Players are central to the genesis of the medium of computer games in two respects: on the one hand, they participate performatively in the creation of play through their game actions; on the other hand, they are directly involved in the shaping of the computer game landscape as producers of communities of practice, game-related content, and data material that enters the development process. Work is always material in that it implies human activity, which can only be kept available through the sustenance of living bodies via housing, food, and other forms of bodily care.[9] Creative practices such as *modding*, *machinima*, *Let's Plays*, *streaming* as well as various aspects of fanhood such as *cosplay* (costuming), *fanfiction* (creative writing), blogging and vlogging (reporting) or organizing gatherings are active, motivated participation in the culture of game making that usually also produces material output. The line between *playing games* and *making games* is thus increasingly blurred – not least by the genre of *editor games* (such as Minecraft) and easy-to-use game creation tools. The systemically ubiquitous but usually uncompensated work of game fans is reflected in concepts such as Kücklich's (2005) *Precarious Playbour* and Abend et al.'s (2019) concept of *Laborious Play* and *Playful Work*. Finja Walsdorff's contribution analyzes the status of work involved in creating game modifications as well as the means modders use to make financial gains from their work. While modding began as a form of unpaid labor by fans, today increasingly professionalized forms of work can be observed in modding projects, as Walsdorff argues based on extensive interviews with modders of *Bethesda Softworks* games. Tim Glaser's article offers a different angle on the same set of issues of fan labor and commercialization in the form of weapon skins in COUNTER-STRIKE: GLOBAL

9 In a call to investigate the economy of games, Rolf F. Nohr (2008) conceives the game-economy explicitly immaterial, primarily connecting it to attention. An economy of games, however, is always to be understood as material as well, for the reasons mentioned.

OFFENSIVE (2012). Looking at these weapon skins and their entanglement in processes of production, distribution and commercialization, Glaser raises the question of the extent to which randomized reward mechanisms can be thought of as a platformization of gaming culture.

As the contributions outlined above demonstrate, ludomaterialities, emerge in a wide variety of contexts and roles: from design processes, industry and fan productions to the platformized distribution and sharing of game content, as an interface element to enable practices of sharing and self-measurement, or as a game tool applicable to art and media education.

We are ending this introduction with a word on behalf of the journal: Starting with the current issue, Spiel|Formen will introduce a recurring op-ed written by changing members of our editorial board. This new format is aimed at providing a space for timely commentary and critique of current developments both in the academic field of game studies and in the wider field of games, game production and play. The first op-ed, co-authored by Claudius Clüver and Max Kanderske, provides a scathing critique of so-called crypto gaming by attending to the historic developments leading up to the "pay2earn" monetarization model and analyzing its devastating economic and ecological consequences.

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GAMES

COUNTER-STRIKE: GLOBAL OFFENSIVE (2012), Valve / Hidden Path Entertainment.

MINECRAFT (2009), Mojang Studios, Xbox Game Studios, among others / Mojang Studios, Microsoft Studios, among others.

POKÉMON GO (2016), Niantic / The Pokémon Company, Nintendo.