On, off and in the map: materialising game experiences through player cartography

Nick Webber

This chapter builds on my analysis of role-playing game character sheets (Webber, 2019) extending my engagement with the materiality of the 'aftermath' of gameplay. Here, I focus on maps, not as paratextual elements supplied by game developers, but rather maps produced and used by players – the output, then, of player productivity. My aim, in this research, is to understand maps as more than instrumental tools or devices created to be used for orientation, for example, and employed as such in the 'moment' of the game. Instead, I seek to understand maps as recording devices, which capture narratives and experiences, and preserve them subsequently. I take the position that the materiality of maps not only emerges in their very existence and relation to place, 'as part and parcel of the material world' (Palmer and Lester, 2013: 2), but also in that way that, in charting progress through a gameworld, they chronicle experience and record a past. In the space of fictional gameworlds, this distinction is arguably emphasized because the relation to 'real' place is weakened or non-existent.

Cartographic practices in games are, however, enmeshed not only in discussions about materiality, but also those about colonialism. Mapping, and relatedly naming, are part of a set of (player) activities which can be understood as 'imperial acts of taking possession', and as re-enactments of empire (Fuchs et al., 2018: 1482, 1495). In many games, this exploratory process is connected with conflict, and associated with what John Rieder (2008: 31) has referred to as 'the discoverer's fantasy', in which a land and its inhabitants are only given structure and meaning by the arrival of the adventurer or protagonist. Mapping in games, then, often represents the objectification of space, in the service of player narratives. Yet if we accept Daniel Miller's (2005) perspective that materiality is produced in the relationship between subject and object, such objectification surely limits the forms of narrative which can emerge. So what narratives – and what pasts – can and do such maps record? How do they offer an account of experience? And what is it that is made material in their materiality?

Keywords: materiality, agency, affect, memory, maps, video games, roleplaying games

Introduction

In January 2017, game historian Dan Boggs published a post entitled 'The Oldest Dungeon Maps in D&D History' on his blog, *Hidden in Shadows*. The post focuses on maps produced by David Megarry *c.*1972, while a player in Dave Arneson's 'Blackmoor' roleplaying game. Bound within 'an old Chemistry notebook', these maps were, so we are told, drawn by

Megarry 'from sketches made as his character H.W. Dumbo braved the depths of Blackmoor Dungeon' (Boggs 2017: n.pag.). The Blackmoor game is considered something of a precursor to 1974's *Dungeons & Dragons* (*D&D*; Gygax and Arneson 1974), one of the most established roleplaying games (RPGs) in existence and currently played by an estimated 13.7 million people worldwide in its tabletop form alone (Camp 2019). *D&D* emerged through collaboration between Arneson and co-creator Gary Gygax, after Arneson introduced Gygax to his game. As Boggs (2017: n.pag.) has it, Blackmoor 'sparked the creation' of Dungeons & Dragons.

For Boggs, therefore, Megarry's maps are important historical documents, worthy of close analysis, and of comparison with later versions of Blackmoor maps issued by game publisher Judges Guild in 1977. The language of the blog post acts to further establish this significance – Megarry is described as 'one of the original players in the Blackmoor campaign' (speaking to his authority), Dumbo his '5th created character' (speaking to the depth of his experience), and in a time 'before D&D existed, probably even before Gary Gygax was himself introduced to the game' (Boggs 2017: n.pag.). The post includes a detailed exploration and annotation of the maps, along with some reflection. Through Boggs' work, we can see in these maps what one comment on the post refers to as the 'prehistory' (Melan 2017: n.pag.) of a much-loved game.

In this chapter, however, I will argue that maps produced by players have a much broader significance in relation to game history and memory. Seeing the Blackmoor maps as important simply because they are old, or because they are artefacts or evidence of a teleological process which ended in *Dungeons and Dragons*, is to underplay their cultural significance as both part of and remnants of game experiences. While acknowledging the aura (Benjamin 1969) of Megarry's maps, and the connection to a particular time and space so important in their construction here as historical documents, we must also recognize that versions of this aura and connection might be seen in all such maps - even when not associated with a 'moment' in the history of a major international franchise, or with someone who knew its creators.

The expectation that players produce maps as they play is encoded in several generations of *D&D* rules: 'one player must keep track of the expedition's trek' (Gygax 1978: 106); 'one or more of the characters should be making maps, but one player must make the actual map' (Allston 1991: 5); 'someone should keep a map of the places you explore so that you know where you've been' (Tweet et al. 2003: 166). Mapping as a practice is thus embedded in *D&D* play, but this is not a phenomenon unique to that game. Similar expectations can be seen elsewhere, for example with gamebooks like the *Fighting Fantasy* series ('make notes

and draw a map as you explore' - Jackson and Livingstone 1982: 17), with *Ryuutama* (りゅ うたま: Okada, 2007), in which mapping is a core mechanic of the unfolding journey, and in *The Quiet Year* (Alder 2013), described explicitly as a 'map game'. Even where games do not incorporate map-making directly into their gameplay, the desire for players to know where they have been (and, indeed, how to get back there), alongside the tendency for games to include labyrinths and mazes amongst their puzzles, has embedded mapping into game communities, both on- and offline. Videogames are littered with mechanisms which seem to demonstrate the assumption that players will have or will make maps to orientate themselves or to address particular challenges: chains of teleporters, locations which alter the direction of travel, false walls which hide the path onward, and floor traps which return players to earlier sections of the game. Even games which provide players with pre-created maps often omit important details in order to preserve a sense of discovery and surprise, leading players to add their own notes and annotations.
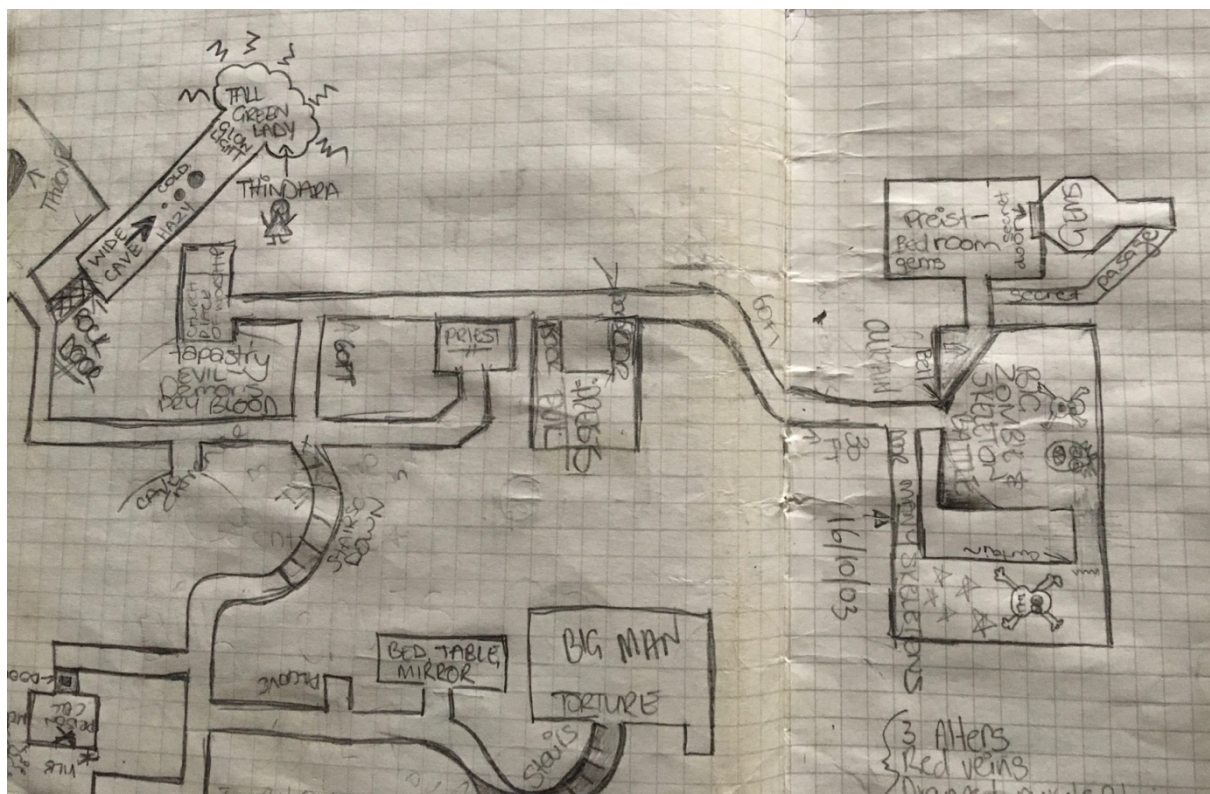

Figure 1: A player map from a *Dungeons & Dragons* adventure. From author's personal collection.

Through mapping, therefore, players act to produce practical representations of game environments to orientate themselves, to solve puzzles and respond to challenges, and in many of the most discoverable cases, to aid other players. Yet these maps are not neutral documents, but instead subjective interpretations of game spaces informed by player

experiences. Each player map, physical or digital and however 'ordinary', captures - *records* - a moment of experience through what is both an act of creation and an act of witnessing, offering a specific narrative of an experience in time and space. In what follows, then, I will draw upon a range of physical and digital maps, along with resources connected with a variety of games, including rulebooks, archives, blogs and the games themselves. I will situate these maps within discussions of materiality, agency, colonialism and story, emerging from studies of material culture and anthropology, geography, literature and games. In doing so, I will explore what narratives and what pasts such maps can and do record, and how they offer accounts of game experiences.

Materialities, tactility and agency

At the centre of this exploration is the idea of materiality, or rather *materialities*. Maps of all kinds, not only those drawn by game players, are embedded within a series of relationships which relate to and produce a range of materialities. Megarry's maps have a fairly obvious materiality, or perhaps physicality, about them which has much in common with that of character sheets, something I have discussed elsewhere (Webber 2019). This is visible in the images of the maps included in Boggs' post: scanned and cropped, they convey an incomplete and organic cartography - an unpredictable work in progress - alongside something of the material qualities of these gaming remnants. Freehand pencil on squared paper, with scribbled annotations and evidence of deletions. Corridors that end in question marks, or which seem to break across the book's fold. Some pages yellowing with age. Staining and discoloration at the edges, where sheets had been either taped into the book, or taped together to extend Megarry's attempts to capture Blackmoor's sprawl.

Yet the electronic mediation of these maps immediately suggests that their materiality is not limited to physicality. Drawing on dictionary definitions of 'material', Paul Leonardi (2010, n.pag.) identifies three kinds of materiality (the quality of being material), summarized as 'matter', 'practical instantiation' and 'significance'. All of these materialities can apply to maps in one form or another. For Leonardi, concerned with digital materiality, it is the latter two material qualities which are most immediately significant, in developing discussion beyond the idea that materiality bears a necessary relationship to physicality. Building on the work of psychologist James Gibson (1986), he uses the idea of affordances 'to ask whether physical matter really matters at all' (Leonardi 2010: n.pag.), highlighting the importance of ideas of use in relation to the physicality of many objects, tools in particular. For digital objects, 'what makes them "material" is that they provide capabilities that afford or constrain action';

consequently, we 'lose little by focusing on contexts in which there is no physical matter' (Leonardi 2010: n.pag.).

Yet this attempt to set physicality aside is unnecessary, and ironically serves to accord an unwarranted primacy to physical materiality. This is not to suggest that we should not sometimes focus beyond the physical when thinking about materiality, but that we should not dismiss physicality to do so. Writing about maps, Catherine Palmer and Jo-Anne Lester (2013: 237) make explicit the interconnectedness of the physical and digital here, observing that 'the fact that maps can be accessed by digital means such as the Internet, mobile phones and tablets does not take away their essential *materiality* as part and parcel of the material world' (original emphasis). Maps, then, as representations and/or mediations of places or spaces inherit something of the physicality of the location so mediated. In the West at least, and increasingly since the Enlightenment, maps are also understood principally as tools rather than, say, art (Rowland 2014: 195), returning us to ideas of use and affordance. We might also think of maps, either physical or digital, as affording a particular kind of *tactility* which supports their use, visibly reflected 'in the signs of wear that maps accumulate through interaction with their users; from misfolded maps to obliterated "You are here" symbols on street maps, rubbed off by countless fingers over time' (Kent 2019: 2).

Tactility, again, is an idea which invites us to presume a physical form, in its association with the sense of touch, and the idea that to be tactile is to be touch*able*. Yet tactility, like materiality, can stretch beyond the physical, and the importance of interaction in creating those 'signs of wear' can help to think this through. Alexander Kent (2019: 2) focuses on the importance of physical engagement 'whether we are flicking a "slippy map" on a glass screen or feeling the page of a paper atlas'; an equation which reflects the fact that our use of and engagement with digital maps is often mediated by interfaces which account for physical norms, and which we employ in physical ways. We push or pull at the map on the screen before us, resting our fingers, our mouse pointer, on locations of significance. So, tactility across these two forms suggests an invitation, or possibility, of touch - broadly understood: an invitation *to* push, *to* pull, *to* linger. Materiality, then, is what is produced through that touch, when a material is pushed against or lingered on: grain and texture, and the possibilities of the material itself.

Taking account of Leonardi's three forms of materiality, though, as we move beyond the physicality of matter we must account for materiality as 'practical instantiation' and as 'significance'. In both cases, further context benefits our analysis. The former concerns the practical, rather than theoretical, dimension of something - 'the practical instantiation of a theoretical idea' (Leonardi 2010). The latter is concerned with matter as a verb - to matter,

mattering. What does tactility look like for these materialities? What are we invited to push against, and with what? In the first instance, a practical materialisation of theory offers an application of an idea. The tactility offered is intellectual, a critical engagement through we push against an idea given form. In the second instance, we touch a mattering that contains concepts of investment, of importance, and of attachment. Here, perhaps, the tactility offered is that of an affective engagement with something meaningful, something that matters.

The materialities produced in these processes of touching might thus be characterized as physical, intellectual and/or emotional. When approaching our player maps, we must be mindful not only of these different dimensions of materiality and the ways in which the maps might afford different kinds of tactility, but also our relationship to them. Daniel Miller's (1987) theorisation of materiality connects to discussions around objectification, constructing materiality as a 'quality of relationship rather than of things' (Pels 1998: 99-100), a theory that encodes 'an understanding of the assumptions about subjects and objects, and the relations between them' (Borgerson 2005: 440). Although, as Miller (2005: 14) observes, it is perfectly possible in philosophy to dissolve the dualism of separate objects and subjects, the distinction between them reflects the way that people think about the world around them. Thus, if we are to understand relationships between people and things, we must 'return to the vulgarity of our relativism and our empathy with the world […] to talk and write in terms of subjects, objects and social relations' (Miller 2005: 45).

Understanding the materiality of maps as a quality of a subject-object relationship has two implications, however. As Palmer and Lester (2013: 3, 7) explain, maps mediate in a variety of ways: they mediate the movement of people between places and the connection between people, place and history, but they also mediate space more generally, typically through representation. In this respect, they enact the subjectivity of their creators, for example through their 'silences' (Yan 2007: 7), with the result that they objectify the spaces and places that they represent. Maps, then, are implicated in a network of material relationships, as objects themselves and as mechanisms of further objectification.

This complexity and layering of objectivity (and thus of materiality) is also reflected in the ways in which maps exercise what Latour (1996) would consider agency, through their capacity to constrain action, an issue also raised by Miller (2001) in respect of material culture. Some scholars use the idea of 'cultural techniques' (*Kulturtechniken*) to define this 'agency of media and things' (Vismann 2013: 83), focusing on the ways in which they 'supply their own rules of execution' (Young 2015: n.p.):

we do not choose how to open or close a door […] We must act according to the rules it sets out for us: push or pull, open or close. A door has agency in the sense that it structures what is possible for praxis.

This approach also attends, and connects our conception of media to, the 'ontological and aesthetic operations that process distinctions (and the blurring of distinctions) which are basic to the sense production of any specific culture' (Siegert 2011: 14) – for example inside and outside, matter and form or, as already suggested, subject and object (Young 2015: n.p.). In terms of the agency of media, then, cultural techniques are seen 'to describe what media do, what they produce, and what kinds of actions they prompt' (Vismann 2013: 83).

Considerations of agency are widespread in the literature on (video)games, and are often based upon Janet Murray's interpretation of agency as 'the satisfying power to take meaningful action and see the results of our decisions and choices' (Murray 1997: 126). Drawing on Foucault, Rowan Tulloch (2014) has argued that agency in games is itself produced in relationship: it is not, as we might initially assume, about working in opposition to the rules or structure of the game, but rather about relationships with and between the structures of power which 'produce the possibility of agency' (2014: 345). Under this approach, conceptions of constraint are set aside – structures of power can be understood simply to afford different types of engagement, allowing particular types of agency in turn. Returning to tactility, as an affordance which invokes a sense of both action and constraint – pushing *against* – we should perhaps understand materiality as the result of a specifically tactile form of agency, produced in relationship between subjects and objects. Consequently, the narratives, pasts and experiences captured and revealed by player maps are conditioned and afforded (and thus constrained) by the relationships that produce their materiality.

Colonialism

The idea that maps objectify spaces and places has further significance here, given the longstanding association between maps and power; as Kent (2019: 2) has it 'the physical act of holding a map reinforces a sense of ownership and possession'. While a major function of maps is orientation in a range of contexts, both in games and otherwise, Sara Ahmed (2006: 113) reminds us that 'to orientate oneself by facing a direction is to participate in a longer history in which certain "directions" are "given to" certain places: they become the East, the West, and so on'. The subjectivity of these representations is then the performance of control, depicting and describing the world in a way which is suitable to the maps' creators,

and presenting power relations as they see them. This is a practice of mastering space, in which maps are cultural technologies that serve as spaces of representation (Siegert 2011: 13). As Cornelia Vismann (2013: 84) observes, 'someone advances to the position of legal owner […] by drawing a line, marking one's territory – ownership does not exist prior to that act'. Here, then, drawing a line is a cultural technique not just of property and ownership, but sovereignty itself (Young 2015: n.p.). It is significant that Benedict Anderson (2006: 163-4) saw the map, alongside the census and the museum, as a core institution of power in the imagination of the colonial state.
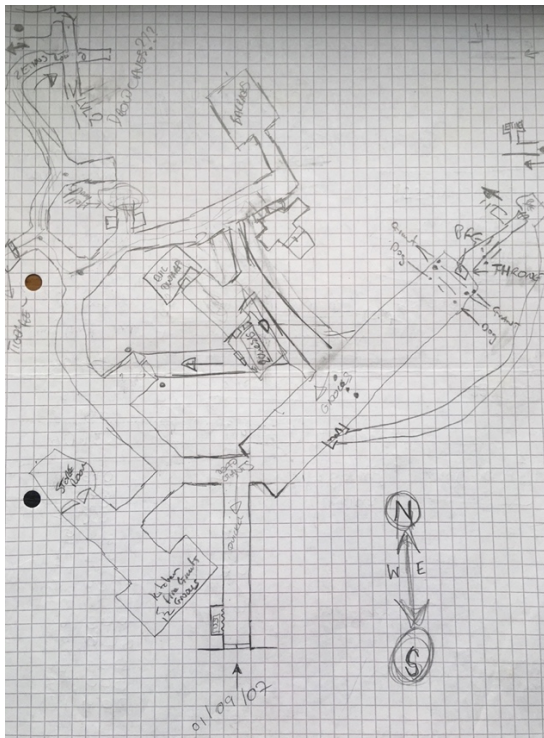

Figure 2: Player map showing rudimentary compass rose. From author's personal collection.

Of course, the colonial overtones of maps have not gone unremarked in studies of games, and nor have the more generally colonialist qualities of many games which have maps and map-making at their heart (see, for example, Lammes 2010; Lammes and de Smale 2018; Mukherjee 2017; 2018). Much of the attention of postcolonial scholarship on games has been directed at historical game series like *Sid Meier's Civilization* (1991-2016) or *Age of Empires* (1997-2020), and while reflecting on how these games encode certain colonialist assumptions, this scholarship has also identified how they create a space in which such assumptions can be challenged. Here player actions and the personalisation of these experiences can produce alternate histories, and consequently maps which represent personal power struggles rather than simply reproducing and continuing colonialism (Lammes 2010: 4), along with outcomes which may reverse historic colonial relations, albeit

still within the framework of a 'colonial game' (Mukherjee 2018: 517). These modes of play persist beyond historical games, of course, echoing movements in literature and other representative forms, which responded to the 'end of geography' and the disappearance of *terra incognita* from maps of the world by creating imaginary spaces in which the discoverer's fantasy, fantasies of acquisition, and adventure stories could be played out in new imperial geographies (see Phillips 1997: 6-7; Rieder 2008: 31-40; Fuchs, et al. 2018: 1477, 1481).

Looking at (early) RPGs like *Dungeons & Dragons*, these issues are pronounced, and compounded by the approaches to gameplay which are assumed. As already observed, there is an expectation that players make maps, and this activity takes place alongside other aspects of play which reinforce colonial expectations within the game, and which will be familiar from a range of other games as well. There is investigation and discovery of 'dangerous and forbidding areas' (Tweet et al. 2003: 164) which are then mapped, described and often named by players, like European geographers filling in 'the hazy outlines on their sea charts and maps with names and symbols' (Phillips 1997: 6). The inhabitants of those areas are othered, and monstrous characteristics attributed to them ('a "monster," technically, is any creature that is not a player character'; Allston 1991: 152), part of a collection of ways in which, as Antero Garcia (2017: 240-1) argues, 'racism is *built* into the D&D system'. Combat takes place against these 'monsters', and spoils are collected. Such loot, or 'treasure' is 'normally found in the lairs of monsters' (Allston 1991: 224), and 'these rewards might be ancient treasures that [player characters] have unearthed, the hoards of the villains they have conquered, or pay from a patron' (Tweet et al. 2003: 167). As Fuchs and colleagues suggest, in Western fantasy RPGs, 'in order to make the unknown both known and knowable, the player character has to explore, appraise, and assess the environment, along with everything and everyone contained therein', a process of searching for exploitable resources, taking possession through imperial acts of mapping and naming, and the establishment of nodes of imperial control such as camps and trading posts (2018: 1482).

The use of such nodes to push back the 'fog of war' now commonplace in video games reminds us that this constellation of problems is not, of course, exclusive to *D&D*, to tabletop games or to games which use hand-drawn maps. Fog of war serves to make the practice of searching for resources more meaningful, offers a mechanic to stage the 'discovery' of the previously discovered (such as natural wonders in *Civilization* – see Ford 2016), and allows for the 'remapping of the game space according to one's in-game affordances' (Mukherjee 2018: 508). Having been subject to adventure, then, these now-revealed video game spaces

are no longer the site of the kinds of acts of representative erasure discussed by Yan (2006: 7, 19, 23-6), in which unknown lands are populated with mermaids, cannibals and monsters rather than polities. Now, their 'silences' convey power, not only through visual, cartographic absences but also, as Sabine Harrer (2018: 7-8) suggests of *Resident Evil V*, through a more conventional meaning of silence as the absence of sound, an absence of activity which signifies domination.

Maps and stories

It is impossible to disentangle our player-made maps from the context of their play – as is clear in the case of *D&D*, cartography should be understood as part of the play experience. The colonial overtones of these maps produce a particular kind of materiality, an intellectual and emotional quality to players' relationships with their ideological material. However, this is not the only quality of player-map relationships, nor is it necessarily the principal one. In *The Quiet Year* (Alder 2013), the players draw a map as the game unfolds, but the focus of this map is their own community and its immediate environs: it reflects the events of the game, but without any expectation of the acquisitive exploration that characterizes *D&D*. Equally, while the map of a game of *Ryuutama* (Okada 2007) chronicles a journey of exploration, it is the journey of ordinary people, not conquering heroes. Each of these games begins with a blank map, evoking the *terrae incognitae* or outline maps so often taken as the inspiration for adventure stories, 'malleable spaces', 'in which anything seems possible and adventure seems inevitable' (Phillips 1997: 3). At their inception, then, these maps represent spaces of uncertainty and of potential, in which stories can be told.

Yet to engage with these maps after the game has ended is to understand them not as the grounds of future opportunities, but rather as the remnants of gameplay: the outcomes of choices and experiences which have already taken place. The limitations of these maps - their edges, their silences - thus circumscribe the stories which they tell; which they *can* tell. While spaces and absences on such maps might once have held the promise of further adventure and excitement, when subject to reflection and when understood as past, they speak of adventures which *did not* happen, stories which *were not* told. Here, perhaps, two forms of materiality sit in tension: engagement with the structure of the map presents an intellectual potential, in the knowledge of the possibilities the absence represents; but also an emotional recognition of the possibilities since lost. Blank spaces on player maps, therefore, are both cartographical and experiential silences. So while other, more 'complete' maps may exist (for example, game masters' or developers' maps), giving answer to our

intellectual pressure, they are unable to provide quite the same deep, affective texture as players' own maps.

This is of particular significance in respect of video game maps, which are often shared widely as part of walkthroughs and other attempts to assist the broader player community. In this context, it is relatively simple to discover online multiple maps of the same game locations, each of slightly different aspect but all representing a tightly defined and programmed space. In some instances, archives draw such maps together, offering a variety of representational strategies, aesthetic approaches and emphases. Perhaps the most notable is the Play Generated Map and Document Archive (PlaGMaDA), created by artist Timothy Hutchings and held at The Strong National Museum of Play in Rochester, New York, and unfortunately inaccessible online at the time of writing (although a few images of maps from PlaGMaDa can be seen on the archive's homepage, and on Bittanti 2012). Elsewhere, game journalists and bloggers collate small collections of maps from those that have been made available (see, for example, Abels 2008; Kuchera 2014a; 2014b).

The *EverQuest Map Preserve* (Prutz 2020), a database of maps of the online RPG *EverQuest* (Verant Interactive and 989 Studios 1999), collects 20 different maps of the adventure location 'Blackburrow'. These are labelled in a mixture of English and Japanese, and prioritize significantly different information: the spawn locations of specific creatures alternate with information about traps and descriptive/community names for parts of the zone ('elite ledge', 'green room'), all set against attempts to capture the extensive complexities of Blackburrow's winding tunnels. Commonalities are also interesting. and the consistent labelling of a pit trap near the entrance ('Hollow Tree with Pit', 'Pitfall', 'Pit!'), even on a map predominantly labelled in Japanese, seems to speak to a desire to record, but also to prevent, a significant shared experience. In some instances, maps can be seen to be appropriated and reused - relabelled or altered, sometimes crediting the original author (a practice visible for at least two of the thirteen maps of the 'Plane of Fear', for example).

Relatively few of these *EverQuest* maps were drawn on paper, but some evidently were - an approach to mapping a precise, digital space mirrored for other video games, for example, older 'grid' games like *Phantasy Star* (1987; Crawl 2007) or the original *Bard's Tale* series (1985-1988; Klohan 2016). Increasingly, doubtless as a result of the prevalence of drawing apps and tablets, maps have been produced in digital form - something demonstrated in the *EverQuest* archive, and which has also been afforded within certain games. The *Etrian Odyssey* series (2007-2018) is notable for using the Nintendo DS/3DS touchscreen to make mapping part of gameplay, for example to complete specific quests. One map-maker's approach during a 2013 replay of the *Final Fantasy* game series (1987-2020) offers a good

demonstration of this shift in practice from paper to screen. She moves from pencil sketch maps of the Crystal Tower in *Final Fantasy III* (1990; Auronlu 2013a) to iPad based sketch maps of Giruvegan in *Final Fantasy XII* (2006; Auronlu 2013b), which she then polishes into a more finished form (Auronlu 2013c). Her comments on her Giruvegan sketch indicate that this is part of a longer development of her practice - 'I've mapped Giruvegan once before, but it was a messy sprawl across a few notepads'. As noted above, these interactions seem to reproduce many of the physical dimensions of our relationship with maps, suggesting that a consistent form of physical materiality is maintained between the remnants of play in the 1970s and in the 2010s.
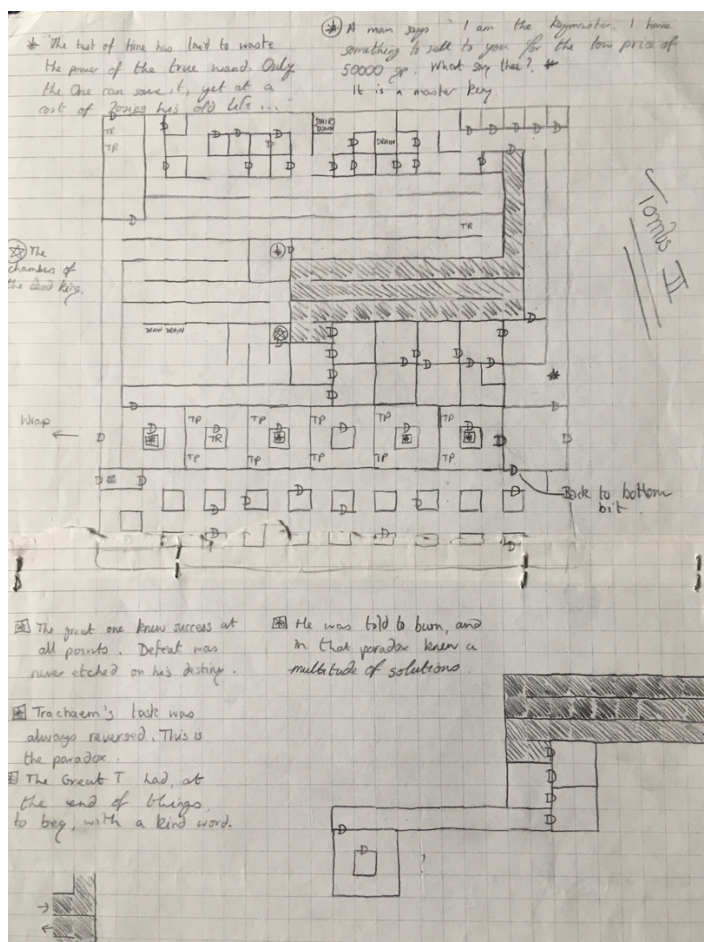

Figure 3: Player map of a level from *Bard's Tale II: The Destiny Knight*. From author's personal collection.

Importantly, again, Auronlu's maps include personally-specific interventions in these mapped and remapped spaces. Her attempts to capture Sabin's 'epic journey' in *Final Fantasy VI* result in a traced copy of the game map bearing a winding red line (Auronlu 2013a) - her

specific interpretation of this aspect of the story. Much like other video game maps, then, this map articulates a story - a narrative - through a general act of reproduction or repetition (of commonly-held cartographic information) with a series of individualized interventions as the journey is traced. The idea that maps can tell stories through comparison is not, of course, new: not only does Boggs take this approach to understanding Megarry's maps, as I note above, but this is also the process at the heart of an established genre of cartographic work - the historical atlas. Charting the transformations of (predominantly) political and territorial relationships over time, these atlases offer a historical narrative through raw comparison, of successive representations of the same bounded space, with editorial interventions to attract our attention to particular features. The narratives so produced are of complex, messy interactions, of time and of change, reminding us that maps do not need to be blank to represent malleable spaces where adventures might happen.

Comparative storytelling can also function in another mode, of course - through the sense of a map as a living, developing document which changes as a story is told. The majority of player maps we might encounter are 'complete', in the sense that their development has ended and their stories concluded. In some instances, however, maps are captured during, or throughout, the process of a game, telling a story over time. An example can be seen in the campaign diary of the twenty-year-old *D&D* game *Adventures in the World of Wearth* (Morris 2003), where the player map for each game session has been preserved online, alongside a text record of game events. The visual narrative provided by the maps is supplemented by the text, allowing us to better understand both. The slow accretion of story demonstrated in the gradually developing map adds to our sense of its materiality: the map not only spatializes the narrative for us, moving our sense of this tale beyond textual abstraction, but also provides a sense of granularity, or perhaps sedimentation: time passing through visible growth of layer upon layer of cartographic production. In this respect, much like photographs, the developing 'snapshots' of the map spatialize both time and experience. Maps produced for the game *Ryuutama* can be seen to reach a similar outcome but through a somewhat different process. Here, map space is explicitly temporal space, with each grid square representing an amount of time in the journey as well as a geographical distance.

What does it mean to map stories?

The complementary nature of the relationship between words and maps is most apparent when player maps are, or at least try to be, in some manner recognisably representative of an imagined world. However, some player maps can be extremely abstract, and reflections

on RPG design discuss ideas of maps as flowcharts or 'pointcrawls' (Anne 2018, n.pag.), 'a way of depicting space that maps a set of known locations as "nodes" that are connected by a limited number of "paths"'. Hitherto, my analysis has focused upon objects which match a set of aesthetic criteria we expect to see in maps, in that they attempt to articulate, in some kind of geographically accurate manner, the spatial dimensions and characteristics of a place. These kinds of maps serve specific gameplay purposes, as blogger Merric Blackman (2021) highlights: visualisation, first and foremost, but also the discovery of 'secret areas', which are most effectively identified through precise mapping. Pointcrawl or flowchart maps do away with this kind of geographical specificity, instead focusing on a series of places or locations, and the paths between them.
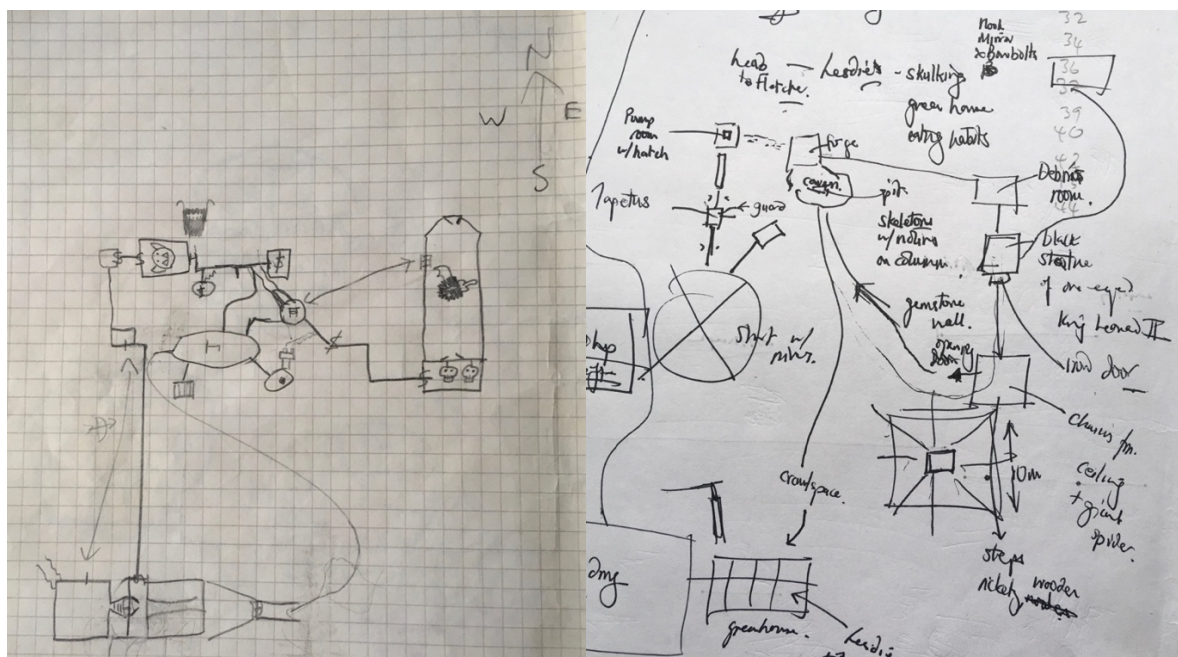

Figure 4: Two examples of players' pointcrawl maps. From author's personal collection.

Writing on the connections between western medieval maps and those in video games, Thomas Rowland (2014) draws our attention to the distinction between spaces and places, following Yi-Fu Tuan (1977) in conceiving of them as interdependent and yet different in character. For Tuan, space is open and free, and places are constrained and defined, 'centers of felt value' with identity and aura (1977: 3-7). For Rowland, reflecting on the travel networks in games such as *World of Warcraft* (Blizzard Entertainment 2004) and *Guild Wars* (ArenaNet 2005), spaces are something to be travelled *through* (or over) and thus are lacking in virtual experience. Places, conversely, are locations to be travelled *to* (2014: 190). Here space is about time, as it is in *Ryuutama*; but *Ryuutama*'s game experience

concentrates on movement through space, *between* places, and exploration and adventure in the blank spaces of the map.

Rowland moves on (2014: 191-200) to explore linear, non-geographical video game maps, and their relationship to (for him a reintroduction of; 2014: 190) medieval styles of mapping, particularly *mappaemundi* ('maps of the world'). Medieval maps reject blank spaces, incorporating nothing beyond the limits of the circle of the world, and do not seek to act as accurate geographical representations, instead concerning themselves with locations/places, with detail and information (usually text), and with the ordering of a narrative. Both medieval and video game maps serve as a 'virtual space in which we can view the sequence (both chronologically and geographically) of events via markers (sometimes as dots, icons, or written text), a space which is to be read not left to right, but holistically, circularly and diegetically' (Rowland 2014: 196-7). This narrative information, charting a pathway between different significant places and events, facilitated imagined journeys, spiritual itineraries which offered a form of pilgrimage for those who could not otherwise undertake one.

Nodal maps - flowcharts and pointcrawls included - thus present a process of emplotment (White 1973: 12), a narrative constructed around a sequence of meaningful events. Interconnections remain paths of the possible, but may render the process of movement between events itself uninteresting. Maps in this form abstract the relationship to space and indeed duration in favour of a concentration on significance and sequence, on the events which offer narrative outcomes. And while these maps echo everyday geographical maps much less directly, they still present physical, intellectual and emotional forms of materiality, in some ways offering greater tactility through their uncluttered abstraction, and concentration of affective modes of meaning-making around events. This is reminiscent of Bernard Siegert's (2011: 16) observation that the interaction between the materiality of a map and the medium of its representation can ultimately deterritorialize that representation.

Although Rowland (2014: 200) argues that it is particularly video games which have prompted a return to seeing maps as narrative spaces in the medieval fashion, this is only partially true, and requires us to hold a relatively narrow perspective on where maps might be found. Moving away from both video games and tabletop games, we can find widespread use of nodal maps by players undertaking game books - for example, the *Fighting Fantasy* and *Destiny Quest* series (in essence, more complex *Choose Your Own Adventure* books). Structured around a series of numbered entries which focus on events leading to decision points and minimize discussion of travel, these books concentrate on the narrative experience and often pay relatively little attention to the coherence of the space which they

purport to represent. In one blogger's case, this prompts shifts between cartographical and nodal mapping styles, according to which is most suitable for the information presented:

> Some books are easy to map, because they are logically laid out in geographical terms […] Others, though, present something more of a challenge, either because their geographical layout is not logical (e.g. turning left and right ultimately lead you to the same place), they are not geographically structured (so that the focus is on what you do, and how and when you do it), or their structure is so complex that simple forms of representation just don't cut it' (Paltogue 2013).

The relatively limited space of these books permits, even encourages, players to produce maps which represent less a specific play experience and more a mapping of all of the narrative possibilities of a book. These normally include multiple failure/end points which would not come to light on a strictly experience-based map, rendering them akin to video game walkthroughs. And as already indicated, video games make widespread use of nodal maps - not only in the terms of the representation of narrative through the non-geographic progress maps which Rowland identifies, but in terms of the very structure of the games themselves. In *Radiant Historia: Perfect Chronology* (Atlus and Headlock 2017), the nodal map at the game's heart is represented as part of gameplay, through two parallel timelines within which the player characters move in a decidedly non-linear fashion, jumping forwards, backwards and between events in an attempt to produce the 'true history'. This mechanism is implemented to an even greater extent in the full representation of the narrative map or story tree provided to players of *Detroit: Become Human* (Quantic Dream 2018). Here, it is possible to identify clearly where further narrative possibilities exist and, should they choose to, players can explore additional nodes through repeated plays.

Of course, these are not player maps, but there is an extent to which they have a similar function, in identifying which segments of the game have been experienced. Indeed, the open representation of narrative maps in video games, paired with the increasing tendency for tabletop RPGs like *D&D* to be played *on* a map provided by the gamemaster, has resulted in some longstanding players bewailing the loss of mapping as a practice (Rehm 2019), even as others cheer its disappearance (DM David 2016). However, innovations in online tabletop play, an area of particular focus in recent years, has seen the introduction of dynamic lighting mechanics which black out areas on the tabletop map as player characters pass through them, encouraging some to take up mapping once again (Chris C. 2014).

Conclusion: map, memories and materiality

The nostalgia of some players for pen and paper mapping in particular is a reminder that the materiality and meaningfulness of these maps goes beyond their capacity to represent and record stories. This can be further explored with reference to Megarry's maps. While many player maps can be found in more or less formal archives such as PlaGMaDa, the organic nature, relative age, and lengthy preservation of Megarry's ephemeral documents evokes the personal, informal archive (see e.g. Kibby 2009; Ashmore et al. 2012), as a repository of meaningful objects and things which illuminates an individual life. Such illumination occurs not only in private, everyday terms, but also in more public, shared contexts: professional life, for example, or, in this case, gaming. Commentators on posts about maps (and, relatedly, character sheets; see Webber 2019) discuss retaining (or losing) their own maps in a manner which attests to their meaningfulness, and their (physical and affective) materiality: 'I still have all of mine saved in a box of treasured possessions. Is there a name for this kind of perversion?' (Tom 2009: n.pag.); 'i had tons of maps drawn out on graph paper most of them are in the game case/box which sadly i no longer have :(' (SomaXD 2014: n.pag.).

The importance of such atypical archival material – of 'objects, ephemera, memorabilia and *tactile "stuff"'* (Mills 2013: 704, emphasis added) – lies in 'the memories associated with them, and the personal experience invested in the event, and recalled through their contents' (Ashmore et al. 2012: 87). This is demonstrated by a comment from Boggs on his blog post:

> I asked Dave [Megarry] about the mapping process and here is what he said […] 'The basic scenario is Arneson telling us, "10 feet, 20 feet, room 20x20 with an up staircase in southeast corner, down staircase in northwest corner, a passage on the north wall and east wall and an ugly troll standing in the middle of the room. What are you going to do?" […] We would be scrambling like mad to figure out a strategy. We would have been drawing the map by hand on loose graph paper […] For Dumbo, I would transfer the loose map into the chemistry notebook later' (DHBoggs 2017, n.pag.).

Here, maps can be seen not only to record but also to prompt memories of game experiences, both general and specific, for their creator. In this respect, they serve almost as a form of external memory: as game journalist Ben Kuchera (2014a) suggests, 'hand-drawn video game maps are physical memories […] We're mapping our memories as much as the landscape'. And while this attests to the relationship between maps and the memory of game experiences, the existence of Mapstalgia, a collection of 'video game maps drawn

from memory' (Millard 2014, n.pag.), indicates that this relationship is not entirely one way. Player maps are, then, mnemonic objects, objects around and through which memories are formed, articulated and remembered. Furthermore, in the idiosyncrasies of their form, they have the potential to prompt memories amongst other players as well. Such prompts might be understood to operate at two levels of recognition: firstly, that of more general understandings of the relationship between maps and gameplay; and secondly, that of a specific recognition of an affecting game experience - of a scenario, for example, or of a conversation in an imaginary place. This in turn suggests that these maps may tell stories which are not only individual but also collective in character, recognisable and legible by others with similar experiences.
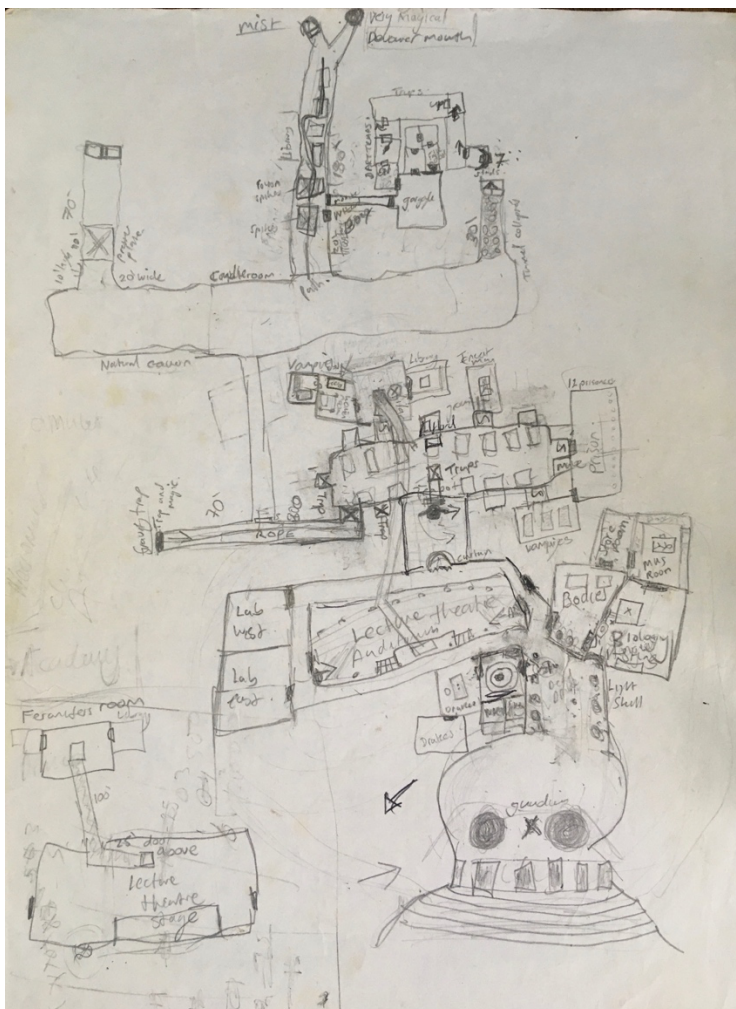

Figure 5: Maps such as this may provoke memories for others, who may have played the same published scenario or simply produced similar records of their game experiences. From author's personal collection.

Player maps, therefore, are enmeshed within and contribute to relationships of meaning; and these relationships result from the maps' material qualities, and the tactilities they afford. In general terms, this insight is already established in material culture studies, as discussed above. Yet these maps present specific affordances which help to further nuance our understanding of how these relationships function, and which seem to speak to broader issues arising around the materiality of media, especially when put to mnemonic purposes. Discussions of player maps often attach importance to the idea of the hand-drawn map; not necessarily a pencil and paper map, this, but a map produced through direct physical agency, in engagement with the tactility of a surface, be that paper or screen. Such a map serves in the first instance to record, but also to orientate, to capture imagination and set it into form. In so doing it also captures experience, through its notation, its gradual development and its absences, and creates a lasting affective bond which can be returned to later to prompt - to evoke - memory. In this respect, the materiality of player maps invites us to think further about our relationship with other kinds of mediation, the outcomes of other creative practices through which we exploit the affordances of a form to capture deeply personal experiences: the selfie, for example, or the diary. For the value in these maps - their meaning, their auratic character, and their nature as record - *is* their materiality, the product of the relationships between them and the players who make them, who use them, and who archive them, either formally or informally, for posterity.

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