

A Preliminary Geography of the (Mega)Dungeon Spatial Practice and Tabletop Role-Playing Games

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Abstract The dungeon and megadungeon are imagined spaces of a complex and interconnected network that emerged in fantasy tabletop role-playing games (TTRPGs) from the 1970s. As a space distinctive to early TTRPGs it is characterised by asymmetry between the dungeon as an object of design, and the dungeon as a practice of play. The discourse of games manuals, independent publications and blogs emerging from the TTRPG scene tracks the origins and evolution of these procedural and labyrinthine spaces, and the distinct spatiality of the megadungeon as a geographical object. The space of the megadungeon can be mapped onto a Lefebvrian triad of spatial production: it exists as a representation of space produced by a dungeon master or algorithmic generation that forms an infrastructure of play; it exists as a spatial practice emerging out of the unique experience of players traversing the megadungeon; and it forms a space of representation by seeking to imagine the megadungeon as a living fictional world, intersecting with the assumptions about spatial norms and relations originating in tropes of fantasy fiction. Surveying these trends in conversation with recent insights from human geography illustrates the distinct spatiality of the megadungeon that is derived from its origins in TTRPG play. This brings forward important questions for the utility of the megadungeon as a metaphor for digital media ecologies, and asks whether the metaphor could be extended to enrich conceptual debates in human geography.

Keywords Tabletop role-playing games. Critical geography. Spatial practice. Mapping. Play. Infrastructure.

Summary 1 Introduction. – 2 An Infrastructure of Play. – 3 Dungeoneering. – 4 Gygaxian Naturalism. – 5 Return to Surface and Conclusions.



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1 Introduction

The megadungeon is introduced in this issue as a metaphor for a complex and intricate volumetric structure that is layered, interconnected, labyrinthine, procedural, and gamified.¹ It is posited as a representation of media ecology, drawing on concepts of volumetrics and vernacular notions of depth within digital media.² This text seeks to return to the dungeon as it originally emerged and was played in the tradition of fantasy tabletop role-playing games from the 1970s onwards, and to consider how this practice intersects with the contemporary spatial imaginary of the megadungeon. The purpose of this archaeology of the megadungeon is not just to excavate the origins and evolution of these procedural and labyrinthine metaphors in games manuals and blogs. Rather, it seeks to construct an account of the specific spatiality of the megadungeon as a geographical object and its implications for contemporary imaginaries of human (and inhuman) space. This genealogical excavation of the megadungeon seeks to explore the topic through playful interaction with current thought in human geography, considering how it can be interpreted through geographic praxis and might likewise enrich current geographical concepts.

A dungeon in the world of games describes a semi-open landscape across which various quests (i.e. objectives) can be played (Aarseth 2005). A megadungeon describes a particularly large (possibly endless) dungeon which can never be fully conquered or explored by players. It likely contains multiple factions of hostile life within it and is often generated according to procedural rules which allow it to extend infinitely. This article takes as a starting point the general concept and history of the dungeon and examines how aesthetic tendencies within this concept came to be emphasised in the ultra-extended and ultra-complex megadungeon.

Palmer (2019) suggests the dungeon is a common trope within games: a heterotopic convention of space which exists according to rules different to those of the normal world. I wish to extend the study of the dungeon as generic space through an exploration of its existence in tabletop role-playing games (TTRPGs). By contrast to wholly digital games, the TTRPG refers to games primarily played through structured conversations: the construction of shared and improvised narrative fiction between participants based on a set of rules which constitute the constraints of this fictional reality (Montola 2008; Arjoranta 2011). In the genre of fantasy this is typified by Dungeons and Dragons (Gygax, Arneson 1974), but has also been

1 See Berti, in the present issue of the Journal.

2 See de Seta, in the present issue of the Journal.

expanded to many other rulesets and settings, and has significantly influenced the design of video games.

This text is thus reliant on multiple sources of knowledge which relate to the (mega)dungeon as a geographical space. The TTRPG hobby has produced thousands of iterations of the dungeon as a designed space since the 1970s, differing from video games in the low barrier to entry for prospective dungeon designers. As TTRPG dungeons are constructed primarily through readily accessible and ephemeral media such as 2D diagrams, texts, and conversations, they constitute a genre of imagined space which lends itself to modification malleability, and experimentation. The inherent tendency towards a DIY ethos in the design of a dungeon mirrors the hackable and patchable spaces created by contemporary networks of digital media. Designing spaces of engaging TTRPG play is also a necessarily social practice which encourages copying, borrowing, and translating ideas between different designers and players. The dungeon discourse of TTRPGs then consists of commercial publications but also self-published or freely shared maps, suggestions, and adaptable ideas. The genre of TTRPG dungeons has a canon of 'classics', periodisable trends, and a lively critical discourse (Horvath 2023; Bell 2021; Deterding, Zagal 2018).

In developing a preliminary geography of the megadungeon the discourse of dungeon designers and players stretching across blogs, forums, publications, podcasts, and reviews has provided an extremely valuable source of knowledge on the dungeon and its use.³ I am conscious that this popular discourse is already developing its own sophisticated 'dungeon philosophy' and a rich and experimental discourse on the spatiality of play. Thus, a large part of the knowledge I present here is derived from these sources with specific authors cited where possible, interpreted through the wider lens of human geography.

The (mega)dungeon is an imagined space which is created and experienced in very different ways depending on an actor's relationship to it. For the designer or 'dungeon master' (DM) the dungeon is in principle a space of perfect authorship where they have complete control as planner and creator, sketching out a dungeon on paper before a game.⁴ For the player or 'player character' (PC) the dungeon is

3 The rich online discourse around the so-called 'Old School Renaissance' (OSR) in tabletop role-playing games is particularly important for my analysis. This is a loose term used by designers and bloggers who endorse a minimalist, process-driven and DIY ethos and aesthetic in fantasy role-playing, nominally contrasting this 'old school' attitude to apparently more commercial, narrative-oriented, and rules-heavy recent trends in fantasy games (Gillespie 2012; Gillespie, Crouse 2012; Bell 2021). OSR practice also typically centres the dungeon as an infrastructure of play, for reasons outlined in the second section of this article.

4 While it is the presence of a human DM which has typically distinguished TTRPGs from computer-based RPGs, a growing genre of single-player or DM-less TTRPGs challenges the notion of an authorial DM as a necessary precondition of improvisational

a space in which agency and knowledge about the space is hugely restricted, requiring them to proceed cautiously through the dungeon with frequent questions asked of the DM to ascertain the properties of the fictional space. The geography of the megadungeon is notable for being constituted through this highly asymmetric social practice between architects and users, which gives rise to a distinct spatiality.

Participation and observation in both 'sides' of the space of a megadungeon as a DM and PC playing with friends during and after my PhD, has granted me some insight into the different contours of geographic thought and praxis which this spatial practice intersects with. I thus also draw on my own (auto)ethnographic experience as a designer and player of dungeons, and the tacit knowledge derived from reflexive ethnography of my own hobby documented in notes taken before, during and after games and conversations with fellow players (Butz, Besio 2009). Reflective discussions arising out of this experience gave rise to the Serious Play Seminar Series at the University of Leeds which facilitated a series of conversations (recorded as a podcast) with games designers, academics participating in games practices, and studying role-playing games (Thurley et al. 2022).

To begin thinking about the megadungeon as a geographical space it is necessary to examine how the players and designers of these spaces distinguish the dungeon from other forms of fictional space which might be encountered when constructing a shared narrative fiction in a TTRPG. As an environment which might be encountered in a fantasy game the dungeon should be differentiated from other complex physical environments which players might usually encounter such as human settlements and wilderness areas. An influential pamphlet by the dungeon designer Jason Cone (2007, 22) posits the dungeon as a "mythic underworld" in which many of the typical conditions of familiar human environments are overturned and where the environment is obstructive if not actively hostile to players attempting to pass through. This takes the form of environmental hazards (darkness and hidden spaces), physical obstructions (traps and barriers) and lifeforms which may be hostile (monsters). On this basis he enumerates nine characteristics of a megadungeon:

1. It is big and has many levels; in fact, it may be endless.
2. It follows its own ecological and physical rules.
3. It is not static; the inhabitants and even the layout may grow or change over time.
4. It is not linear; there are many possible paths and interconnections.
5. There are many ways to move up and down through the levels.

play, and the use of large language model 'artificial intelligence' to substitute the role of DM has proved popular amongst some players.

6. Its purpose is mysterious or shrouded in legend.
7. It is inimical to those exploring it.
8. Deeper or farther levels are more dangerous.
9. It is a (the?) central feature of the campaign. (Cone 2007, 23-4).

Other writers have put forward alternatives definitions and criticised the focus on the mythic and otherworldly aspects of the dungeon in Cone's definition as too narrow and bound to specific genres of heroic fantasy.⁵ Bloch (2022) indicates some useful additional criteria which more clearly differentiate a *megadungeon* from a regular dungeon: it is a space which cannot be "cleared" (i.e. a space which cannot be completely emptied of danger or conquered by a player - it is a permanently inimical and restive terrain); it may not necessarily be a subterranean space in the fictional universe but could be any kind of self-contained network of enclosed spaces (e.g. a ruined city, a forest, a swamp). He also notes a secondary characteristic that is important to the latter section of my analysis: that the megadungeon is generally a space which contains multiple factions of life (referring to different groupings of inhabitants with varying and often antagonistic relationships), meaning that the dungeon forms a political terrain which players must navigate.

The megadungeon that emerges from this set of elements is one characterised less by the way it is described or 'dressed' in the fantasy world of a game, and more about a specific kind of spatial agency which is prompted by the encounter between the player and the dungeon. Besides the typical Gothic clichés of the dungeon-as-trope such as dark stone-lined corridors, dusty tombs equipped with deadly traps, and surprise attacks by giant spiders, the dungeon can be interpreted beyond these tropes as a formal spatial practice. The TTRPG dungeon is a space-based platform which could take on a variety of settings distinct from typical Gothic aesthetics.

The dungeon provides an infrastructure for expressing agency. It is a designed or generated space which is encountered by players as a series of challenges (environmental, physical, lively) while also offering some freedom of choice in how or where these are met or surpassed. The dungeon provokes in the subject encountering it a particular kind of mobility which is required to pass through the space ('dungeoneering') and is presented as a space with distinct (though not immediately legible) rules which form complex systems, with the expectation that those passing through the dungeon may come to understand these rules and engage with them towards some specific ends.

⁵ Bloch 2017; Rossi 2017; Dell'Orto 2017; Spalding 2017; Krombach 2010; Bobjester 2008.

These three aspects can be mapped onto Lefebvre's (1991, 38-9) triad of spatial production which has been so influential in human geography. The dungeon comes into being as (1) 'representation of space'; a space conceived by a designer. It is created out of text and diagram by a DM who acts as an author, planner, and social engineer of the dungeon. The dungeon is encountered by players as (2) 'spatial practice'; a space which they perceive through their (fictional) senses as described by the DM and which they are tasked with traversing. Finally, a dungeon emerges as (3) 'representational space'; a lived space which appears to take on a life of its own through the system of signs and symbols which arise from play. The dungeon is a space which is lively with complex social and ecological systems. This tri-alectic production of space provides the structure for the following sections, exploring the space of the megadungeon across three levels, before returning to the surface for concluding points.

2 **An Infrastructure of Play**

The popularity and ubiquity of the megadungeon as a structure in games reflects its history as a space designed for play. The spaces of the megadungeon are designed to encourage and anticipate a certain form of agency which presents those exploring the dungeon with challenges, meaningful choices, tantalising uncertainty, and narratively satisfying outcomes. Certain formal qualities of how a megadungeon is designed reliably give rise to engaging puzzles. The megadungeon is an infrastructure which facilitates play, and like all infrastructures instantiates a spatial practice which contains transforms the affective and agential relations of those who interact with it (Furlong 2011; Rao 2014; Bosworth 2023).

Discussion of the principles of designing a megadungeon (or a smaller dungeon) often highlights the way that the design of the dungeon structures and focuses a player's agential encounter with a fictional world. One of the peculiarities of tabletop role-playing games as a form of play is that the player's agency is uniquely open and not restricted by interpretation through a non-human client with a limited range of actions, as in video games. Instead, there is a nominally infinite range of detail and possibility for interaction with the world, structured through a conversation between the DM and the PC. A player encountering a new dungeon space can ask for its objects to be described in limitless detail ('What is the floor made of? What does this book smell like? What colour are the goblin's eyes?') and can engage in a limitless range of interaction with the space ('What happens if I dig through the floor? What happens if I tear out a page of the book and eat it? Will the goblin become our friend if we sing a song to them?'). This presents a challenge for both parties. For the

DM this can require an enormous amount of preparation to adequately think through the complexities of a fictional world and anticipate the ways in which PCs may interact with it. For PCs this range of possibility can be daunting, and result in them feeling overwhelmed by the radical openness of TTRPG play.

The structure of a dungeon as a network of interconnected discrete spaces imposes clear limits on these possibilities. As one prominent DM and dungeon designer describes, “dungeons constrain a complex world and bound it by walls, and doors, and floors, and ceilings, and within these boundaries you have near infinite space to create” (Colville 2018). For the DM the dungeon vastly limits the amount of preparation they have to undertake to present a realised fictional world by allowing them to prepare a series of discrete spaces which restrict players to certain pathways but nonetheless present them with a range of freedom and agency in how they traverse the network.⁶ For the players the dungeon is encountered as a series of discrete spaces which pose discrete challenges where their goal is often clear: to successfully transverse the space and reach the next room, to advance to the next level of the dungeon, to acquire the object or slay the monster which constitutes their quest (Aarseth 2005). The dungeon drastically limits the agency of both DM and PC, but in doing so re-structures the limitless possibilities and infinite space of a fictional world into a series of discrete spaces and puzzles which can be overcome in novel and inventive ways. In this sense the megadungeon constitutes an infrastructure of play because it structures play through a series of bounded spaces of problem-solving.

This infrastructural aspect of the megadungeon also extends to the way in which it structures the social dimensions of play. TTRPGs are typically played in a series of scheduled sessions (usually lasting 2-4 hours) by a group of players, with these individual episodes linking together to constitute a larger campaign. The megadungeon provides a structure for these series of games, with each individual session narrating a particular expedition into the dungeon (building on the explorations of previous forays) with a changeable cast from session to session (Alexander 2011a). This is particularly important in relation to megadungeons which by virtue of their size and complexity are generally impossible to fully explore or map. Thus, the megadungeon is not just a single site of play, but a wider infrastructure

⁶ Within this article, the designer of a dungeon and its DM are often assumed to be synonymous as ‘architects’ of the dungeon. However, this role is not necessarily identical. Specific designers may be authors of dungeon maps and plans (such as Jennel Jaquays, see below), which may then be played by separate groups of DMs and PCs. The equivalence of these two roles in this article is based on the assumption that in practice DMs frequently adapt and ‘hack’ pre-designed dungeons on the fly to suit the needs and preferences of themselves and their PCs, and so they can be treated as co-authors of the space.

for continuous, repeated play across an entire campaign – a complex spatial field in which repeated explorations can be carried out. This point also highlights the methodological analogy between the play engendered by the megadungeon and typical geographic methods: the dungeon delve as fieldwork.

Nguyen (2020) undertakes a philosophical enquiry into games as an art form and concludes that games achieve an aesthetic effect by defining knowable goals and providing players with rules-bound agency to achieve those goals. Games then constitute an agential art by providing a gap of indeterminacy for players to occupy in their striving for goals which form a focus of the players' attention. The geography of a megadungeon provides a clear representation of this agential art constituted as space: the DM designs certain constraints on agency (the layout of the dungeon itself and its hostile terrain) and attentive foci (quest goals, treasure, and monsters) which players can nonetheless struggle towards through novel and innovative applications of their agency.

The challenge in designing a dungeon as an effective infrastructure of play is then to create a space which is aesthetically rewarding to explore and overcome through discrete challenges. It is a space which must be basically perceptible and knowable to players so that they appreciate the verisimilitude of the fictional world and act within it, but which also must be (at least initially) largely unknown and obscure. If a megadungeon abandons any consistency or repeatedly frustrates the attempts of players to traverse it will cease to be a game. For example, if a DM designed a dungeon such that rooms or their physical properties were arbitrarily transformed or rearranged every time the players passed through a door, it would cease to be perceptible or knowable. The classic dungeon *Tomb of Horrors* (Gygax 1978) was designed to deliberately frustrate complacent players by including arbitrary traps and dangers which could not be perceived in advance (exemplified by a misty portal which instantly results in death by any who pass through it), but nonetheless presented the dungeon as a series of euclidean spaces which largely obeyed the laws of physics familiar to human reality. Conversely, a megadungeon that presented players with a perfect map of the space and its dangers at the start of a played session would cease to be an enjoyable or rewarding space to encounter. The 'representation of space' which is a megadungeon (as conceived by a DM) must then be legible but largely obscure to players.

With these formal dimensions of a megadungeon established, the possibility for developing an algorithmic basis for generating the map of a megadungeon was quickly exploited. A key element of fantasy TTRPGs has always been the use of randomised elements to produce novel and unexpected outcomes (mostly through the rolling of a die and consultation of a table of outcomes), and it did not take long

for this simple stochastic approach to be applied to the spatiality of the dungeon itself. The first published rules of Dungeons and Dragons emphasised the authorial design of an individual DM in creating a dungeon, stating that it was “necessary for the referee to sit down with pencil in hand and draw these labyrinths on graph paper” (Gygax, Arneson 1974, 3). The rapid digitisation and automatising of the process of dungeon design in the years after this rapidly turned it into an algorithmic and rhizomatic practice.⁷ By 1979 the rules of Dungeons and Dragons had taken advantage of this evolving practise and provided a set of random tables which constituted an algorithm for the infinite design of a dungeon which was also “easily adaptable to solitary play” (Gygax 1979, 173), and so removed the necessity of having an individual DM to act as author of the space. Instead, the dungeon could act as a truly processual space, generated on the fly as a PC explored it. Equally the generation and interpretation of a megadungeon by a DM on their own could form a type of processual game in its own rights. The DM can be said to be playing the dungeon itself as they design it, fleshing out the details of the algorithmically generated space with their own fictional narrative (Colville 2018).

Typically, the rules provided for dungeon creation presume a DM is recording the dungeon as a keyed map on a 2D grid of graph paper. The 1979 rules for procedural generation comprised tables which dictated the size, shape and nature of entrances to/from rooms, the frequency with which monsters would appear on different levels, the nature of any traps and treasure within the room (including a sub-table for different kinds of poisonous gas which might be released), in addition to an appendix of ‘dungeon dressing’ which comprised tables of hundreds of different sounds, smells, air currents, furnishings and detritus which might be used to add colour and a sense of place to the environment. The donjon website (donjon.bin.sh 2023) has assembled various iterations of dungeon generation algorithms into a tool which can rapidly generate fully populated and realised dungeons for various different games and settings based on a few inputs [fig. 1]. A rich genre of single player RPG content contains rules for generating game spaces randomly to be played by single PCs without the need for a DM. The ability to generate an infinite stochastic space allows for the possibility of the discrete and single-authored dungeon extending into an infinite megadungeon. If we understand the megadungeon as processual space rather than a pre-determined space, it can constitute a nominally endless infrastructure of play.

⁷ See Berti, in the present issue of the Journal.

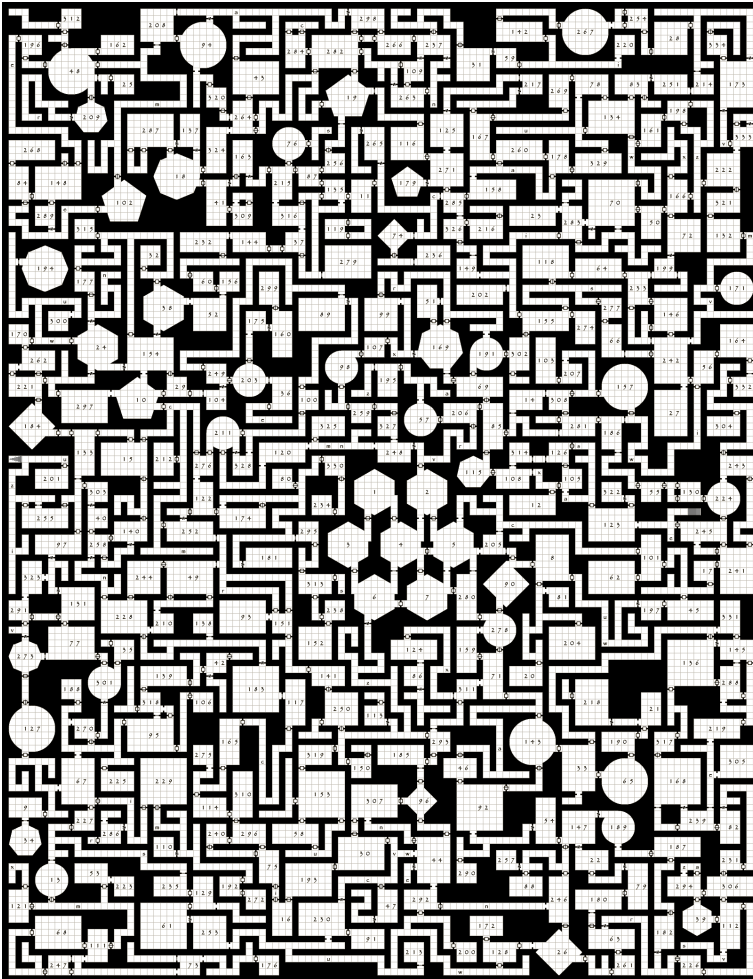


Figure 1 Dungeon map produced through the donjon.bin.sh generator

Discussing the affective dimensions of games Nguyen (2020) argues that the effective design of games mirrors urban planning and governance in that it constitutes an ‘architecture of agency’ which uses rules, constraints and incentives “to shape the activity that will emerge from the agency of users” (157). The question of how a dungeon shapes the agency of players towards affective ends resonates with the concept of affective infrastructures (Bosworth 2023). The development of the philosophy of the megadungeon from a single-authored architectural work to a processual space which unfolds a potentially infinite infrastructure of play mirrors recent debates

in urban geography which have focussed on the urban as a processual space which is characterised by extension beyond conventional notions of scale towards global totalities (Brenner, Schmid 2015). This infrastructural quality is also a clear point of comparison between the conceived space of the megadungeon and the gamified platforms of contemporary digital media – to this end its noteworthy that Nguyen (2021) has extended his analysis of games as architectures of agency to argue that contemporary digital media platforms represent a gamification of communication. Beyond its applicability to digital media ecology, the analogy of the megadungeon might offer a metaphor for the tendency towards gamification in the production of spaces of processual extension, operationalisation, incarceration, and extraction which characterise the human geography of planetary urban infrastructures. As an infrastructure of play, the dungeon functions as a platform which introduces standard tropes and formats of agency and chance, re-interpreting the seemingly infinite possibilities of the narrative engine of a TTRPG as a series of discrete agential encounters between the architect (the DM) and their users (the PCs) (Bratton 2015).

3 Dungeoneering

Navigating the megadungeon as a player offers a very different way to experience the representation of space conceived by a DM. As an infrastructure of play, the dungeon is designed to provoke certain aesthetic experiences in the PC who must traverse it. The verb ‘to dungeoneer’ arose in early discourse around fantasy TTRPGs to describe the ways in which players navigated these spaces. The term dungeoneering is commonly used to refer to the development of particular skills and knowledge by a PC necessary to navigate the space of a dungeon in a relatively safe manner. While this form of encounter with fictional space is common to dungeons of all scales, the importance of traversing this space took on special significance within the emerging genre of the megadungeon. This section concerns the experience of dungeoneering, and the kind of spatial practice which traversing the dungeon provokes in players.

The dungeon is designed to produce for players an experience of restricted knowledge (uncertainty – the inability to predict what dangers lurk around the corner or beyond the next door) and restricted agency (contingency – the need to rely on the limited skills and resources the explorer has to hand in order to deal with any dangers or challenges). However, dungeons which successfully produce a satisfying and rewarding experience of play should allow for the possibility of making the space legible and safer to travel through. That is, that through effectively deploying their limited resources, the player can

develop useful knowledge about this uncertain and dangerous terrain. We can then ask what kind of spatial tactics and agencies the megadungeon requires of those who encounter it: what is it like to play through a megadungeon, and what kind of geographical knowledges and experiences are produced?

To answer this, we can return briefly to consider how a dungeon can be designed to allow kinds of nonlinear play. The games designer and illustrator Jennell Jaquays started her career by creating dungeons for play in *Dungeons and Dragons*, and later went on to contribute to the design of the *Quake* series of computer games (Mobygames 2023). Analysis of her writing and design of megadungeon-like spaces has been particularly prominent in online discussion of the experience of dungeoneering, as her dungeons are thought to have pioneered principles which produce a particularly satisfying and engaging space to navigate. Jaquays' approach to dungeon design emphasised the importance of creating non-linear dungeon spaces which did not have one single solution or correct path which players would need to discover, but which rather constructed the dungeon as a landscape characterised by complexity and dynamism. These spaces are thus frustrating and difficult to navigate, but also present the PCs with a wide range of resources which can be combined and exploited in novel ways, including those which may not have been anticipated or imagined by the designer themselves. They are thus designed with a degree of indeterminacy about how the space can be traversed, without a pre-determined linear solution. Alexander (2010) coined the verb 'Jaquaying' to describe how dungeons can be designed to encourage this kind of novel and improvisational play, and quoted Jaquays' assertion that "a melding of design intent and fortunate accidents" was the basic principle of effective dungeon design.

Dungeons designed by Jaquays such as *The Caverns of Thracia* (1979) forgo a simple branching layout where players are presented with a series of choices of which space they will interact with (left door or right door). Instead, the dungeon creates complex and integrated spaces which feature loops (allowing players to backtrack on themselves or play through areas in different ways), multiple entrances (providing different experiences depending on the entrance chosen), secret paths and areas (rewarding players who thoroughly investigate the terrain with new spaces and resources), verticality (extending the two-dimensional space of the paper map into three dimensions) and non-Euclidean geometry. Jaquays dungeons are also characterised by incorporating extra-dimensional or nested spaces within 'normal' dungeons. Such designs make the spatial practice of dungeoneering more dynamic and interesting than a series of simple choices by creating a more complex and variable landscape within the overall infrastructure of play provided by the megadungeon. Melan (2006) illustrated this point by producing diagrammatic

representations of classic dungeons as simplified branching paths. This forum user writes that

good map design contributes to the fun of an adventure, and it is not a total crapshoot - there are clearly identifiable design principles which [...] when followed, benefit a given creation. (Melan 2006)

'Good' dungeon design from this point of view gives rise to free-form and inventive play, as opposed to the exploration of rigid pre-designed stories. It is notable here that the apparently infinite and procedural space of the megadungeon may not reliably deliver the same narrative satisfaction and good design principles of intentional map design following these principles.

The complexity of non-linear dungeoneering also serves to introduce the spatiality of the dungeon itself as a resource which the players can exploit in their dungeoneering. Secret paths can allow dangers to be avoided, or new angles of attack on adversaries. Enclosed areas of the dungeon can be fortified or protected with traps in order for them to act as bases from which players can venture forth. Elements from one space of the dungeon can be combined with those of a different space in unanticipated and novel ways: a monster can be tricked into falling through a trapdoor or becoming lost in a labyrinth; a hungry dragon can be placated by giving it access to an underground stable of livestock; a portal to an extra-dimensional realm can allow players to acquire a magical tool which allows them to overcome a locked door; an underground community can be persuaded to help the PC to circumvent a danger in a completely different part of the dungeon. These kinds of environments thus resist linear play and often require creative use of space itself to successfully navigate the megadungeon.

The spatial practice of dungeoneering within the massive and multi-level space of a megadungeon also allows the PC a degree of control over the broader coordinates of their experience. One of the key spatial characteristics of the megadungeon is that it is "big and has many levels" (Cone 2007, 23). Levels here refers to the dungeon as a vertical stack, with multiple levels of rooms and corridors placed on top of each other, accessed by staircases or lifts between them. The levels of a megadungeon typically correspond to varying levels of risk and reward. Those levels closest to the surface will offer the least danger (with weaker adversaries and traps) but also the most meagre reward in terms of material treasures acquired. Deeper and lower levels will offer progressively more dangerous encounter but also more substantial rewards. The algorithmic generation of random dungeons takes this into account, with randomised monsters and traps varying depending on the level of the dungeon in which they are generated. The fictional justification for this vertical spatial differentiation

is typically that higher levels of the dungeon are frequently visited by outsiders, so have already been more thoroughly explored, tamed and stripped of treasures than the lower levels (Curtis 2009). Lower levels then represent further degrees of separation from the human world of the surface and will likely contain increasingly weird things and hostile environments (discussed in the following section). This vertical stacking also serves an important purpose in that it allows players a degree of control over the level of danger they will face, while also encouraging a mode of play that resembles variable odds gambling: they always have the opportunity to “push their luck” by venturing deeper into the megadungeon (Milton 2020a).

The ways in which the actual traversal of the dungeon environment is described and imagined is also important here. Early versions of Dungeons and Dragons which tended to be more dungeon-centric in their play emphasised dungeoneering as a slow and methodical process which is quite unlike travelling through normal corridors and rooms. These rules are set out systematically in the edition of the game edited by Moldvay (1981). The party moving through the dungeon must do so slowly and carefully, moving just 120 feet (36.6 metres) in ten minutes of fictional time. They must also rest for ten minutes in every hour, giving an average speed of just 183 metres per hour (which would be further reduced if they were carrying heavy objects such as treasure). Moving any faster will risk attracting wandering monsters. Players are also expected to pay close attention to their surroundings when exploring, searching for hidden traps and secret corridors, listening at doors. The rules emphasise careful resource management. Dungeons are dark and those exploring them will need to bring a large supply of light sources which will need to be replenished: a single torch will burn for one hour, and when the party runs out of torches they will be in total darkness unless they have a magical source of light or a non-human character who can see in the dark. The prevalence of the term ‘dungeon crawl’ to describe dungeon-centric play in tabletop and on the computer RPGs captures the notion that megadungeons are traversed cautiously and arduously. Dungeoneering is a gruelling and exhausting process of crossing a hostile landscape in which players who do not show requisite caution will be at risk of meeting an untimely end. The experience of traversing a megadungeon (in which players might spend days, weeks, or months underground) is presented as a viscerally challenging experience.⁸

⁸ This focus on caution and procedure is exemplified by the way dungeoneering players encounter traps. While later editions of the game would introduce numerical tests for overcoming traps (a player can roll a six-sided die to spot and disarm a trap, for example), earlier playstyles emphasised a description of the materiality of the dungeon space when traps were encountered in the megadungeon (Maliszewski 2009; Alexander

Significantly, these rules also suggest that all groups exploring a dungeon should assign one player the role of ‘mapper’, who will be tasked with producing a map of the terrain for the players themselves. This can be done on graph paper, emulating the original map produced by the DM themselves. This mapping is done to help players to visualise the space and to record the elements of the dungeon they have already explored but serves a vital role in the spatiality of the dungeon. Mapping the megadungeon reinforces the verisimilitude of the fictional world and provides a material record of the space which is otherwise only encountered through the dialogue and description from the DM.

These maps serve as a resource for the players to assist in their dungeoneering, but they may also contain errors (which the DM should not correct). The complex spatiality of the megadungeon as a non-linear and multilevel space characterised by loops, secret areas, verticality, and nested zones introduces further challenges the production of a dungeon map as straightforward process and increases the chance of errors. Given the apparently infinite detail in which the megadungeon can be described, player created maps will never be perfect Borgesian 1:1 map of the deliberately deceptive territory but will reflect the particular priorities and contingencies of each group of players. Despite these challenges, creating a map allows the players to take greater advantage of the spatiality of the megadungeon itself in their journey, and to exploit the space itself as a resource. Players may identify potential locations of secret rooms, or tunnel through a wall to bypass a hostile monster. The megadungeon is a territory which actively resists mapping, but the production of a map assists greatly in its traversal.

Viewed from this perspective we can see the entire practice of the dungeon as a process of translating space through encounters. The process rests on two maps: one prepared by the DM (or generated on the fly through algorithmic processes), and one created by the PC. The actual ‘play’ of the megadungeon is a conversation between DM and PC which slowly translates one map into the other, from the DM’s representation of space to the PC’s spatial practice.⁹ It is also highly significant that this conversation is typically a transitory performance which is not recorded, while the map produced by players

2020). Players were encouraged to describe exactly how their characters were checking for traps in the fictional world of the dungeon (a common technique being to carry a ten-foot pole outstretched in front of them and tap on walls and floors) and how these would be disabled (e.g. through wedging hinges open or cutting wires). This emphasis on a thick description of the dungeon and its spatial practice contrasts to the more gamified abstraction of dungeons in *rougelike* RPGs.

⁹ For this reason, when I act as DM in games the players take the in-fiction role of mapmakers engaged in a cartography of the dungeon.

represents a material trace of their encounter with this space. It provides continuity between serial play sessions and represents the singularity of this player's encounter with a space (as other players of the same dungeon may have chosen different paths, faced different randomised elements, or modified the space in different ways). The player-produced map is the trace of the spatial practice of the megadungeon as it is played and experienced - a record of the production of space as the "simultaneity of stories-so-far" (Massey 2005, 9).

The spatiality of the megadungeon that emerges from play has resonances with other currents of thought in human geography. Rather than the open and omnidirectional space of the surface world, the megadungeon is an extremely structured space of hierarchy, containment, and division (Elden 2009), mirroring the distinction between smooth and striated space posited by Deleuze and Guattari (1988). However, the introduction of 'Jaquayed' elements in the dungeon transform this striation into a resource which the players themselves can use to navigate - they can 'hack' the space, acting as urban explorers of the dungeon's underworld (Garrett 2013). The megadungeon is a space which is navigable and partially legible, but which resists mapping. While two-dimensional maps of space-as-surface have been associated with assuming a territory to be conquered and known (Massey 2005), the complex and potentially infinite vertical spaces of a megadungeon always exceeds the ability of players spatial practice to produce a reliable map. The exploration of the dungeon could be reimagined as a cartographic subversion of the DM's designed space in a manner similar to the improvised remapping of the landscape proposed by the situationist *dérive* (Pinder 1996) or practices of counter mapping which seek to recapture the radical potential of mapping as a counterhegemonic practice (Counter Cartographies Collective, Dalton, and Mason-Deese 2012). To follow through on the metaphor of the dungeon visit as a field trip, the spatial practice of producing maps suggests the dungeon adventurer as geographer, ethnographer, and counter mapper - principles which might also be taken forwards to attempts to map and subvert the spatial metaphors of digital media.

4 Gygaxian Naturalism

The preceding sections have explored the spatiality of the megadungeon from the perspective of the two participants in the asymmetric dialogue through which a fantasy role-playing game is played: the megadungeon as a representation of space conceived by the DM, and the megadungeon as a spatial practice played by PCs. This section moves on to look at how the megadungeon is imagined as a space beyond both of these participants, as a place with its own laws, complex systems and lives which are posited as autonomous from author and player. This entails a cultural geography of the fictional world of the megadungeon as a representational space: a 'living' fictional space beyond either the DM's design or the PC's dungeoneering.

The broader cultural politics of the fantasy genre have been the subject of much relevant scholarship. The original dungeons of fantasy role-playing games were inspired by twentieth-century fantasy and pulp fiction (principally JRR Tolkien, Robert E. Howard, Fritz Leiber and L. Sprague de Camp) which themselves drew on the spatial tropes of castles, catacombs and prisons in Gothic literature (Ewalt 2013; Witwer 2015). Such spaces conform to a centuries-old narrative association of the subterranean with horror, often associated the repressed spaces of the human psyche in post-war century literary criticism (Zajac 2010). Recent scholarship and online discourse amongst players has particularly examined the colonial dimensions of fantasy fiction in general (Young 2015). Van Dyke (2008) identifies humans in fantasy role-playing as "the normative race", equated with Anglo-Saxon medieval culture and the forces of civilising 'good' facing a wild and dangerous realm (Premont, Heine 2021). By contrast, the monstrous non-humans who are typically their adversaries are othered and portrayed as evil through tropes which draw closely on a colonial imaginary of people of colour as warlike, cruel and opposed to the civilising enterprise of whiteness (Young 2015; Homes 2019). The colonial tropes of fantasy TTRPGs are being challenged and re-examined by a more globally diverse practice of contemporary gaming (Wee, forthcoming), but remain a strong influence in much of the genre.

The underworld which the megadungeon portrays may often conform to many of these colonial tropes, offering a representation of a space which is characterised by its weirdness, alterity, and hostility to players. Gothic and fantastical fiction related to underground spaces has often imagined the subterranean otherworld as a space of encounter in which the civilised contemporary encounters a repressed and inhumane other, again typically portrayed through racist tropes which paint the inhabitants of such spaces as analogous to colonised peoples. It is significant that the typical settings or fictional justifications for megadungeons do not just rely on the classic

tropes of Gothic literature (ruined castles and catacombs), but also commonly feature superlative representations of the vast processual spaces of infrastructure created by industrial capitalism and urbanisation since this nineteenth century: sewers, prisons, mines, bunkers, archives, and indeed cities themselves. The portrayal of the megadungeon as a space of geologic exploration and extraction (with players digging deeper into the Earth's crust to seek richer rewards in the form of rare minerals) is analogous to Yusoff's (2018, 7) discussion of the coloniality of mining and "the libidinal economy of geology (as the desire for gold, mineralogy, and metallurgy)". The sci-fi megadungeon *Gradient Descent* (Gearing 2020) allows players to explore a vast abandoned space station, navigating a dense network of server spaces and automated factories. The megadungeon as the excavation of an archive or the remains of a dormant server has clear parallels with the digital media ecology explored elsewhere in this issue.¹⁰ These approaches to the megadungeon dress the superstructures of urban capitalism in Gothic tropes and represent them as sites of weird fantasy horror.

The question then is what kind of life are the inhabitants of megadungeons represented as having? Yusoff (2018) notes that the geographic imagination of geologic spaces as essentially static and awaiting discovery by extractive forces also supports the representation of indigenous inhabitants of a territory as unnatural obstacles to extraction. In the megadungeon, monsters fulfil this role as inhabitants of a landscape whose presence constitutes an obstacle to the project of mapping the space and extracting treasure. Fairly early in the history of fantasy role-playing however, there was a move away from representing such monstrous inhabitants of the megadungeon as merely static obstacles to the players, and introducing elements which sort to give the dungeon a more dynamic representation of its denizens.

This was first achieved through the use of wandering monsters, meaning randomly chosen monsters that players would occasionally encounter while traversing the dungeon. This principle builds on the risk-reward mechanism of the megadungeon's infrastructure of play (as spending more time or making more noise in the dungeon is liable to attract wandering monsters) but assists in representing a more unpredictable lifeworld of the megadungeon. Wandering monsters help make the dungeon feel living because they "take the game out of the DM's hands, so even they are surprised by the things that show up" (Milton 2020b). This is a key principle which links back to the conceptualisation of the megadungeon as a processual space generated through randomised algorithms.

¹⁰ See Berti and de Seta, in the present issue of the Journal.

However, as the hobby developed, dungeon designers sought to go beyond this representation of monsters as mere challenges for players and began to consider the megadungeon as a complex ecological and social system. This principle became known on the role-playing blogosphere as Gygaxian naturalism, after the work of *Dungeons and Dragons* co-creator Gary Gygax which increasingly exhibited this philosophy by the late 1970s.

As I use it, [Gygaxian Naturalism] refers to a tendency [...] to go beyond describing monsters purely as opponents/obstacles for the player characters by giving game mechanics that serve little purpose other than to ground those monsters in the campaign world. [...] The intention behind Gygaxian Naturalism is to paint a picture of a 'real' world, which is to say, a world that exists for reasons other than purely gaming ones. The implication is that monsters have lives of their own and thus go about their business doing various things until they encounter the player characters. (Maliszewski 2008)

This is achieved partly through a more advanced and integrated system of randomised dungeon inhabitants which models ecosystems and social structures. Rules are introduced which outline which monsters are likely to appear together, what kinds of environment they are likely to occupy, their relation to other groups in the megadungeon, and the kinds of spaces of social reproduction (lair) they create. The megadungeon is then posited as a stochastic terrain which has a semblance of 'living reality' because it follows its own internal logic beyond the fiat of the DM or the intervention of the PC. Rather than appearing as otherworldly beings whose existence and motives are beyond the comprehension of human interlopers (Krombach 2010), the provocation of Gygaxian Naturalism is to imagine the dungeon as an extension of the known world, with comparable (albeit deeply strange) laws of ecology and sociology to the familiar world of the surface. In some cases this transition might also imply a return to more narratively-satisfying, 'story-driven' games as opposed to truly random procedural play (Bell 2021). However, this move could also serve to radically decentre both the PC and the DM from the megadungeon, and instead posit the megadungeon as a complex and autonomous fictional space on its own terms.

This can take place through the introduction of social/political factions into a dungeon, which is stipulated as a key characteristic of a megadungeon in much online discourse. Positing dungeon-dwelling life forms as inhabiting complex social structures (with their own internal and external rivalries) creates a dynamic and political terrain for PCs to encounter, as opposed to assuming that all inhabitants of a dungeon are allied in their hostility to outsiders. It provides the PCs

with a terrain of political, social, and economic opportunity to navigate and exploit, and this is borne out in the description of dungeon-dwelling monsters in *Dungeons and Dragons*, which gives increasing focus to the holistic lifeworlds of these creatures in subsequent editions. Rather than just indicating the presence of monsters such as goblins in a dungeon, adopting the principles of Gygaxian Naturalism would prompt us to consider how political power is wielded within goblin society, the nature of gender within goblin culture, how labour is divided, where young goblins are raised and fed, and how dissident goblins might seek to change their conditions – all principles which provide an infinitely more rich terrain for PCs to navigate. The principle of the living megadungeon also implies that the megadungeon itself would respond to the dungeoneering incursions of PCs. Areas that had previously been cleared of monsters might be recolonised by new inhabitants, players may be invited to join a group of rebellious goblins as advisors, and the slaying of a dragon might upset the ecological balance and prompt the emergence of yet-more-dangerous monsters. This principle of restocking the megadungeon also transforms it from the site of a single expedition to a complex ecological, social and political landscape which will be vastly more replayable (Alexander 2011b). The territory of the megadungeon resists mapping not only because it frustrates easy surveying, but also because it transforms and adapts in response to mapping.

This further raises the question of how the megadungeon reproduces itself, and what infrastructures sustain it. In an inversion of the scholarship of people-as-infrastructure in contemporary urbanisation (Simone 2004), the design of the megadungeon typically posits inhumane or monstrous infrastructures as sustaining life in the dungeon. This is best illustrated by the monster named the gelatinous cube, which was introduced in the earliest edition of *Dungeons and Dragons* (Gygax, Arneson 1974). These creatures are amoeba-like cubes of near complete transparency which perfectly fit the dimensions of a typical corridor and slowly trawl the depths of the megadungeon, digesting and recycling detritus which has collected. In this way, a suitably otherworldly solution was found for how the endless corridors of a megadungeon were kept clear, and a further challenge for the PCs was introduced.

This principle of the megadungeon as an apparently infinite social and ecological totality is best exemplified by the fictional realm of the Underdark, first introduced in Gygax's *Descent into the Depths of the Earth* (1981). The Underdark describes an enormous subterranean realm which spans the entirety of the planet. It is essentially a planetary megadungeon of interconnected caverns and rooms featuring subterranean oceans, civilizations, and cities populated by the weirdest and most inhumane denizens of the game. It forms a kind of satirical inversion of the surface world rendered as a megadungeon – a

space which is presented as so radically weird that it constitutes an alternative reality to the known world.

The megadungeon is significant then because it gives full space to the representation of life radically different from the apparent norms of 'civilised' (i.e. human) life. These holey spaces of subterranean infrastructure and inhuman environments constitute a heterotopia of sorts (Kindynis 2016). Rather than the brief appearances of the weird or horrific which are typical of fantasy and horror fiction, the weird and inhuman elements of the megadungeon necessarily must be given representation as fully fleshed systems or complex lifeworlds. Writing about the discourse around invasive plant species, Clark noted that "the notion of 'globalization from below' might have new connotations if it can be shown that there is no final cut-off point to this 'below', no guard-rail to keep us to the realm of the already humanized" (Clark 2002, 105). The Underdark, and the megadungeon more broadly, might be a provocation to imagine a radically different and monstrous form of globalization which lurks beneath the surface of liberal narratives of cosmopolitan progress.

Imagining the megadungeon as a representational space for other ways of life which subvert and challenge normative assumptions of surface-dwelling life aligns with the geographical discourse of volumetric spaces on the internet, and the apparently strange social structures which animate and maintain the depths of digital media.¹¹ The megadungeon proposed by Gygaxian Naturalism no longer stays put as a static space but reveals a lively and interconnected inhuman geography of a subterranean world (Cohen 2015; Yusoff 2018; Billé 2020). New and weird spaces of vertical life are apparent which contradict the normative presumption of life as horizontal and surface-dwelling (Roast 2022). As Garrett (2019) describes, contemporary urbanisation creates its own complex geology of sewer systems, bunkers, basements, mines and vaults which transform the subterranean earth into a geopolitical battleground and suggest the megadungeon as a potent metaphor for a planet-wide network of extended urbanisation.

11 See de Seta, in the present issue of the Journal.

5 Return to Surface and Conclusions

In this preliminary run through the geography of the megadungeon, Lefebvre's triad of spatial production has been applied to the imaginative and social phenomenon of the megadungeon as it existed in its origins in fantasy TTRPGs. Evidently, the web-based discourse of a wide community of players and designers has already developed a sophisticated 'philosophy of the dungeon', and my intention in mapping these discourses onto Lefebvrian categories is to illustrate the depth and resonances of the resulting spatial practice. The conceived space of the dungeon (both by individual DMs and algorithmic processes) is a 'representation of space' which functions as an infrastructure of play, imposing certain limits on agency and knowledge to create a hostile and indeterminate terrain. The result is complex striated space (Deleuze, Guattari 1988) which requires a distinct 'spatial practice' to perceive and navigate: players are encouraged to engage with the spatiality of the dungeon as a resource itself in novel and unexpected ways, not least through the production of their own mapping of the space. At its essence, the play of the dungeon is a spatial practice which translates the DM's representation of space into the player's spatial practice through the conversion of one map to another. Finally, advanced discourses of dungeon philosophy posit the megadungeon as a living material world with its own social and ecological cosmology, suggesting a 'representational space' occupied by weird and monstrous forms of life.

In tracing these three approaches, it is possible to identify how certain distinct spatial qualities of the dungeon came to be emphasised and exaggerated to the point where they became the notionally infinite space of the megadungeon. The platform-like standardisation of encounter through an infrastructure of play lent itself to automated generation instead of authorial design. The development of particular modes of traversing this space enhanced the possibilities of satisfying and rewarding play within hugely extended dimensions. With the principle of Gyaxian naturalism, the infinite extent of the megadungeon could be populated by strange forms of life and social-ecological systems took full advantage of the possibilities of this space.¹²

The megadungeon then constitutes a complex geographic object, produced through asymmetric spatial practice. TTRPGs in general produce a particular form of space which is grounded in textual and

¹² There is an evident tension here between the principles of authorial (human) design of dungeon spaces, and the procedural (machinic) generation of spaces and encounters. These two countervailing tendencies are well documented by dungeon philosophers (Bell 2021) and do not neatly cleave to the dungeon/megadungeon distinction. The interface of human-algorithmic design in TTRPGs and the cybernetic geographies this gives rise to is a topic worthy of detailed exploration beyond this article.

diagrammatic representations of space (whether produced by an author or an algorithm), but which is practiced differently in the ephemeral dialogue through which players navigate the space. The spaces of TTRPGs are performed through a very distinct improvised conversational practice, which arguably has closer parallels to geographies of dance, play, and artistic practice than geographies of video games. In the context of the megadungeon, the material trace left by this practice is a map of the dungeon which documents the players incomplete traversal of the fictional landscape. It is tempting to see the dungeoneer as a metaphor for the construction of geographic knowledge more broadly, both practices engaged in a process of mapping shifting spaces with limited resources and often adverse conditions. Representations of space in the pages of a dungeon module and of the real world in geographic journals often both rely on similar practices of textual description, and 2D diagrams and stochastic models. There are broader implications here for how spatial knowledge can be conveyed in novel and original ways: could we ask geographers to represent a field site through a megadungeon, or incorporate TTRPG practices into their fieldwork? How can textual and diagrammatic representations offer new insights into the traversal of vastly extended urban spaces and archives?

This also carries implications for the application of the megadungeon as a metaphor for digital media ecologies, as postulated in the other articles of this issue. The megadungeon is a space which is impossible to map, and in this it is most obviously parallel with the digital archive. The key function of the megadungeon as an infrastructure of play which shapes certain forms of agency (and the spatial application of agency) to my mind poses a provocation for digital media: what room is there for agency or creative and novel combinations of resources to circumvent the adverse terrain of the digital megadungeon? Is the gamification of digital media based solely on the 'mechanical' model of random number generation, numerical tests, and metrics, or is their possibility for digital dungeoneers to create novel and unanticipated pathways to the next level? Drawing on the notion of Gyaxian Naturalism we might also ask what assumptions about normative forms of life and inherited prejudices are embedded in the megadungeon - the colonial and Eurocentric tropes of the fictional megadungeon and its inhabitants perhaps mirror the biases introduced in the training data of large language models. We could also ask who does the work of maintaining the megadungeon: what is the digital analogue of the gelatinous cube that crawls the depths of the deep web to keep it clean and functioning?

With this observation in mind, we might also consider applying the megadungeon as metaphor to geographic phenomenon in the non-digital realm. The image of a processual space unfolding through a highly striated network of enclosures offers a potent metaphor for

geographies of incarceration and border control, resource extraction and infrastructure – and might prompt similar questions about the space for agency and representation within these networks. The megadungeon likewise aligns with recent discourses of urban geography, where the notion of extended urbanisation posits a centreless, permanent frontier of urban life which contains novel reconstructions of daily life, ecology, and definitions of the human. The metaphorical power of the megadungeon perhaps speaks to a deeper entrenchment of notions of gamification and enclosure in the landscapes and mediascapes which seem to surround us at the start of the twenty-first century. Future delves into the geography of the megadungeon should find ample material here for further enquiry.

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