

Thinking with Labyrinths: A Fictional- Topological Exploration



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Metode

Metode (2023), vol. 1 *Deep Surface*
ISSN 2704-0550

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We are accustomed to thinking of the greatest challenge that a labyrinth can present us with in terms of “cracking” it, solving its mysteries or figuring a way out. For me, the writing of this essay posed the opposite difficulty: how to mislead the reader into entering? What promises can I give? Will it suffice to state my “aims” and “interests” right at the outset, hoping that they will overlap with yours, reader? Here is an attempt:

Thinking with labyrinths invites us to conceptualise surfaces as sites of narrative production. Delving into the rich fictitious texture of labyrinths and following the paths of various protagonists that seek to traverse and solve them renders the clear-cut opposition between surface and depth untenable. Moreover, on the terrain of the labyrinth the surface is not necessarily posited as “flat” or as two-dimensional (Krämer 2022); what turns out to be more pertinent to understanding labyrinths’ narrative productivity is accounting for surfaces’ material heterogeneity and spatial as well as temporal operations. We could describe labyrinths as assemblages of surfaces: their peculiar topological properties mean that what counts as “interior” and what is positioned as “exterior” to the labyrinth is constantly negotiated and reconfigured. Compellingly, it is the tension between these poles that becomes a material for storytelling and experimentation on their terrain. In a labyrinth, whose surface, as we shall see, is both continuous and porous, a protagonist’s quest to access its depths, to reach what is hidden away or stolen, can only be successfully solved if diverse practices of orientation and modes of thought are cunningly brought together, at the surface. Arguably, labyrinthine surfaces are built not only with stones, mortar or hedge, but are also permeated by magic, monsters and spirits; it is this composite, ambivalent and errant character of labyrinths that I attempt to respond to and assemble anew in this essay.

The text draws mainly from literary and film works that centre on labyrinths to use them not as illustrations, but rather as building blocks for formulating the essay’s three main propositions. Each of them focuses on a different aspect of the workings of labyrinths: their fictional productivity, the way they operate temporally, and how they bring together diverse modes of thought.

Finally, the present contribution is meant as an experiment in reading as navigation. It offers a series of shortcuts in the form of hyperlinks, which the reader can follow if they choose to. In adopting this form for the text, my wish is to foment some of the affective-intellectual resources – like patience, curiosity and the experience of disorientation – that one would expect to engage in a labyrinth also.

The labyrinth fictions

Stories and myths brew in labyrinths¹ : they always suggest some kind of quest and bring forth protagonists that set off for it. A labyrinth might conceal certain threats or treasures, some questions and solutions, but it also invites the deployment of intelligence and dexterity for the generation of other questions and answers that can unlock it. A labyrinth as a tale is activated the moment when someone positioned as “foreign” in relation to it attempts to traverse it, bringing it into disequilibrium with her alien interests and skills. What counts as internal and external to the labyrinth is not fixed, as we learn in Ursula Le Guin’s novel “The Tombs of Atuan”. When Arha, the High Priestess of the Tombs, meets a thief and magician from Earthsea who has entered the maze-like crypts, she starts shifting allegiances. She becomes Tenar, forsaking her role as a guardian of the subterranean labyrinth in favour of the newly found trust in Sparrowhawk. This brings upon her the anger of the Dark Ones (the powers of the Earth seething in the tombs) – and the labyrinth, alive with malignant spirits, suddenly becomes a lethal trap (Le Guin 2016). Similarly, following Theseus’s successful quest and killing of the Minotaur, King Minos imprisons Daedalus together with his son Icarus within the labyrinth of his own making. So complex and convoluted are its passages, that even its architect cannot simply walk out of it. Daedalus is then compelled to come up with a different solution altogether and construct wings with which to fly away, together with Icarus...

As commented by Unwin, the young mathematician in one of Jorge Luis Borges’s numerous stories unfolding around labyrinths, “the Minotaur more than justifies the existence of the labyrinth” – indeed, as he points out to his friend, the poet Dunraven, there is a “correspondence between the monstrous house and the monstrous creature that lives inside it” (Borges 1999a, 260). We can say that the monster and the strange house imply each other – their relationship is of a different, more intrinsic kind than the one between the labyrinth and its maker Daedalus.

Jacques Attali acknowledges that the labyrinth always tells a story, though not exactly the same: these stories are of passage, voyage or communication between worlds. He writes that the ubiquity of labyrinths from

¹ Some authors distinguish between labyrinths and mazes on the basis of the kind of paths that they are formed of: whereas labyrinths are unicursal and technically there is only one way that leads in and out of them, mazes are multicursal – their paths tangled and riddled with dead-ends or routes leading nowhere. While intriguing from a topological point of view, this differentiation is not central to this piece. Similarly to approaches found in literary and other cultural engagements with such sites, I will use “labyrinth” to signify both types of spatial organisations. This is because I want to shift the focus from an engagement with the generative capacities of lines (see Ingold 2016) to one dealing with the productivity of surfaces.

different times and geographical locations – both architectural and ornamental – could be linked to the need to ritualise a “passage from the nomadic to the sedentary state”² (Attali 1998, 19). What I am here interested in is not the provision of a cultural anthropological explanation of labyrinths, but rather in the exploration of their magic ambiguity and fictional-topological properties. To come back to the question of exteriority and interiority, intrinsic and extrinsic properties vis-à-vis labyrinths: while it is clear that they tell stories about passage and transformation, requiring a traveller/trespasser as a force driving the narrative, an important component of these stories is formed by the issue of what or who counts as *internal* to the labyrinth. The Minotaur is a constitutive part of the Cretan labyrinth, as are the Dark Ones in relation to the Tombs of Atuan, as are the goblins in relation to the fantastical labyrinth from the 1986 film simply titled “Labyrinth” (Henson 1986).

As can be seen in films like “Labyrinth”, the architecture of labyrinths consists not simply of stones, mortar or hedge, but also of magic, monsters and spirits. In the story, Sarah needs to find her baby stepbrother Toby, who has been taken away by the Goblin King (upon her own wish) – and she must do so before the 13th hour strikes. She finds herself in a constantly shifting mesh of paths and blind alleys, passages looping upon themselves but also, at the very beginning, within a pathway that stretches as if eternally into the distance and makes for the weirdest of all the labyrinths: one with no curves, left or right turns, or dead ends³. Once having entered the labyrinth at whose centre little Toby is kept, her second challenge (the first was to enter) is to find a way out of this seemingly endless path. The answer to the riddle only presents itself when she stops and shifts her attention from the ever-diminishing vanishing point of the alleyway towards the cracks in the surface of the surrounding walls. There, a miniature blue-haired worm advises her that one shouldn’t take anything for granted in the labyrinth. Indeed, camouflaged as a mossy wall, there happens to be an opening right next to them. Sarah walks through it and lets herself be guided once more by the strange little creature which warns her to “never go *that way*”. Once Sarah goes the other way, however, the treacherous worm murmurs to itself that had she taken *that way*, she would have directly reached the castle of the Goblin King who keeps her stepbrother!

Indeed, nothing is as it seems in the labyrinth and more often than not it turns out that what happens or rumbles from its interstices, from the crevices of its non-flat surface, is more important for the story than finding the straight way towards the centre.

² This too is a fiction.

³ Like the desert in the short story “The Two Kings and the Two Labyrinths” whose smooth space “has no stairways to climb, nor doors to force, nor wearying galleries to wander through, nor walls to impede thy passage” (Borges 1999b, 263)

The labyrinth curves time

What counts as internal and external to the labyrinth is not fixed. The classical Cretan labyrinth, consisting of a unicursal path that loops on itself seven times, is a good figure through which to approach this. As Paul Harris writes with surprise, this “path is marvelously intricate and tantalizing, for in moving from entry to center, it actually progresses further away from the center, then moves close to the center, then further away again, before finally reaching the goal” (Harris 2014, 144). Harris suggests that this oscillation can be seen as indicating not only a spatial, but also a temporal “two-wayness” and a “suspension of linear time” (2014, 145). I will come back to this proposition below; let us stay with the Cretan labyrinth for a bit longer. Were you to take a printout of a map of the Cretan labyrinth as seen from above⁴, you might want to imagine its lines as walls. If you then trace their inner and outer surfaces with a pencil, it is likely that you too will be startled, for you won’t have lifted your hand before you have covered the whole area of the imaginary walls. Hence, the labyrinth is a fascinating topological object not simply because of the algebraic and geometrical rules according to which it unfolds, but also due to the continuity of its surface. It is impossible to distinguish between the outer and inner surface of the Cretan labyrinth, because it is in fact one and the same, twisting and looping in and out of itself.

However marvellous to contemplate are visual representations of labyrinths, what makes them exciting as narrative sites are diverse attempts to “crack” them. Solutions can require walking or achieving a comprehension of the labyrinth’s internal logic, or both. In any case, the protagonist needs to inhabit it, to submerge herself into its fictitious texture and extrapolate the particular solution for its successful traversal out of the elements (temporal and spatial, magical and logical) that are narrated as intrinsic to it. For example, in her quest towards the Goblin King’s castle, Sarah needs to constantly converse with different creatures that could be antagonistic or sympathetic to her cause. Trust and betrayal are situational and complex, because neither can be taken for granted: this means that the decisions that the labyrinth requires to be made involve not only the taking of left or right turns, or the opening of correct doors, but also the capacity of discerning the right allies, a weaving of a web of affinity and trust. Perhaps the starkest instance of this is Sarah’s relationship to Hoggle, who is torn between different kinds of loyalties and belongings – between his service to Jareth the Goblin King, who attempts to intimidate him

⁴ Or learn to draw/make it yourself. See Phillips (1992) and Fenyvesi, Jablan and Radović (2013) for two distinct ways of creating a Cretan labyrinth. The former would require you to start from a nucleus (made of a cross, four L’s and four dots) and then draw lines connecting the free ends, while for the latter you will first need to draw a square root spiral and then cut out squares, tilt them to 90° and then paste them back.)

into betraying Sarah and bringing her back to the labyrinth's beginning, and Hoggle's friendship with Sarah herself. Hoggle is a figure that with his intimate knowledge of the labyrinth can be seen as an intrinsic part of it. However, by way of his attachment to the intruder Sarah, he gradually distances himself from the labyrinth and becomes a wanderer and foe in the goblins' kingdom.

All of these mini-quests and encounters happen against the backdrop of time literally running out. The thirteenth hour of the strange clock that keeps time within the labyrinth might initially appear to be a welcome gift – until it turns out that Jareth can manipulate time and forces the clock to fast forward. This constitutes a temporal aporia internal to the labyrinth: on the one hand, an important part of almost any story that takes the shape of a quest is the protagonist's struggle against time, and the Goblin King seems to understand this very well; on the other hand, time within the labyrinth flows differently, as manifested in the additional hour of the clock and the malleability of time.

Writing about the Cretan labyrinth, Paul Harris explicitly links the twisting and turning of its lines to the production of what following J.T. Fraser's conception of nested temporalities can be termed as "eotemporality" (see Fraser 1978). According to Harris, "the labyrinthine line evokes a hiatus in linear time, an aporia or pause in which the directional distinction between past and future is lost" (2014, 135). This suspension of progress and curvature of time is interesting in itself, but what I want to highlight here is that it also makes the site of the labyrinth permeable to all sorts of stories and paradoxes. The expansion of the surface area achieved by the folding and curling of pathways within a relatively compact, delimited, organised site results in the compression of time and the production of temporal loopholes that might condense in specific objects, intuitions or rhymes. In the film "Labyrinth", such elements include the mirror, the small-scale model of a labyrinth that Sarah has in her room, and the final line of a fictional story that she has memorised and that becomes the key to prevailing over the Goblin King in their last encounter. The reoccurrence of aspects of these objects and rhymes makes the boundaries between the fictional and the "actual" world appear brittle and porous. It is impossible to determine which world and which story is nested within which. Instead, while clearly governed by different spatio-temporal and social relations, they are inextricable from one another – evidenced by their mutual pollution with objects, verses and interests.

The labyrinth produces diverse modes of thought

A labyrinth invites the deployment of intelligence and dexterity for the generation of questions and answers that can unlock it. It requires tools and the invention of practices that fit within but that can also overcome its logic. At least since Ariadne's gift to Theseus, using a string to thread one's way through the windy passages of a labyrinth has established itself as an effective tool for keeping track of the right way through it. In a more dynamic labyrinth, like the one that Sarah loses herself in, putting visual marks on tiles and walls can prove to be less practical – for creatures inhabiting the labyrinth trail after her and reverse the directions of the tiles, thus rearranging the path taken as well as the path yet to be followed.

Arha's strategy, on the other hand, seems beguilingly simple: she finds her way in the Tombs of Atuan by "touch and number" (Le Guin 2016, 211). Her fingertips never leave the wall, and she keeps track of the turnings and openings by counting them in her mind. Deprived of the possibility of relying on "sight and common sense" (ibid.), she needs to instead develop a different way of orienting herself. She puts to work haptic memory and arithmetic to ensure her survival; none of these distinct modes of thought would be sufficient on its own to guarantee her safe passage through the Tombs. A dynamic and heterogenous composition of surfaces that functions as a productive narrative site, the labyrinth demonstrates the futility of opposing thought to action, hapticity to intelligence, matter to form or meaning. The relevance of these modes of relating and their arrangement to each other will always shift in accordance with the specific situation at hand. Possibly the "first abstraction of a sense of human destiny, of an ordering of the world" (Attali 1998, 15), the labyrinth often acts like an interface or a border between worlds. As explicated by Tim Ingold, an interface "serves to keep the two sides separate, confined to their respective domains", but "it is also perforated by holes or keys that allow information, and sometimes materials, to pass from one side to the other" (2023). The interfacial character of the labyrinth – its capacity to both articulate difference and facilitate passage – calls for invention, experimentation and a mixture of different kinds of knowledge.

This character also has narrative implications, for in stories like Borges' "Ibn-Hakam al-Bokhari, Murdered in His Labyrinth" (1999a) the labyrinth functions as a common ground for the trading of different stories and frames of analysis. In it, a poet and a mathematician meet and swap their respective readings of the chain of events that has led to the death of

king al-Bokhari within the labyrinth of his own making. Both the positions of the two interpreters (the one offering the story and the one listening to it) as well as the roles of the chief protagonists (the king and his fellow traveller Said) are reversed in the process of narrating/deciphering the story within the story. These interwoven narrative reversals mimic the oscillating paths of the labyrinth itself. At the end, the poet's version of the story is replaced by the alternative reading of the mathematician, but it remains unclear which – if any of them – holds true.

It appears that labyrinths are of interest not only for storytellers and poets, but also for mathematicians. In particular, scholars from the fields of visual mathematics and topology have delved into the diverse properties of labyrinths, their studies offering strikingly practical insights for fields like archaeology, art history and even dance. For example, Anthony Phillips's (1992) modelling of 46 remnants of Roman mosaic mazes has helped him identify 14 instances in which a faulty archaeological restoration of such sites is highly probable. For their part, Fenyvesi, Jablan and Radović (2013) have proposed a simple way of a "cut and paste" construction of labyrinths and meanders, with one of the methods resulting in the visual representation of patterns of religious dances linked to the site of Knossos (where the original Cretan labyrinth was thought to have existed). Furthermore, we could say that the labyrinth is a fascinating topological object not simply because of the algebraic and geometrical rules according to which it unfolds, but also due to the continuity of its surface.

It is impossible to distinguish between the outer and inner surface of the Cretan labyrinth, because it is in fact one and the same, twisting and looping in and out of itself; this constitutes an interesting problem for topology and storytelling alike. Such examples attest to the fact that labyrinths operate not only as interfaces between worlds, as shown in the work of Jacques Attali, who has framed them as "place[s] of passage, meeting and communication between the world of the living and that of the dead" (1998, 20) but also as connective surfaces that enable encounters between diverse modes of thought. A dynamic and heterogenous composition of surfaces that functions as a productive narrative site, the labyrinth demonstrates the futility of opposing thought to action, hapticity to intelligence, matter to form or meaning. Their curving paths and unexpected openings can be traversed and populated by blue-haired worms and mythical engineers, by priestesses and mathematicians, lions and goblins, all at the same time, and there will still be space for more. But beware to count, touch and plot your way and your allies well, you thieves and voyagers, for the labyrinth is not innocent, passive or simply there: it will turn your bones to ashes and devour the carcasses of the misguided.

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“The work emphasizes an understanding of surfaces as fundamentally ambiguous existences through its relation to the configuration of labyrinths. An understanding of surfaces as simultaneously deep and shallow, continuous and porous, internal and external, inner and outer, fictional and actual, haptic and intelligent, form and meaning. The work encourages this understanding of surfaces in a way which renegotiates these binaries, and which I find very interesting also in relation to my own contribution to Deep Surface. Through its usage of the labyrinth to reimagine and explore our understanding of surfaces, it also becomes explicit how when considering surfaces today it is also critically necessary to reflect upon how surfaces have been understood in existing historical, as well as ancient, works.”

“The essay challenges established academic formats in an interesting and subtle way, just slightly disrupting the chronological organization of the text. As such the form-content relationship within the work is also very precise, as the text actually begins to embody the ambiguous qualities of labyrinths, which it describes.”

- Jacob Oredsson, author of “Surfaces Surfacing,” *Metode* (2023), vol. 1 Deep Surface

“I love the potential of this essay to explore something truly disorientating in its written form. I would suggest going even further with this idea (?), repeating the central arguments as breadcrumb motifs throughout.”

- Nick Walkley, author of “The Matter of Illusion: Seeing the Surface Facismiles,” *Metode* (2023), vol. 1 Deep Surface

“I just love labyrinths”

- Marius Moldvær, author of “I will acknowledge the Shallowness of my depth. An autoimmune, spontaneous prose essay,” *Metode* (2023), vol. 1 Deep Surface

Cite this essay:

Neda Genova, "Thinking with Labyrinths," *Metode* (2023), vol. 1 'Deep Surface'

Metode

Metode (2023), vol. 1 *Deep Surface*
ISSN 2704-0550

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