Shapereader and the Limits of Touch

Ian Hague

https://orcid.org/0000-0001-6330-2135

Abstract

Ilan Manouach's *Shapereader* works from the premise of a tactile language: a series of plates forming an index is encountered through the fingertips and used to learn and understand the deployment of the symbols on those plates in larger sequences that comprise narratives such as *Arctic Circle*. The project is driven by a notion of community: '*Shapereader* is a community-specific tactile conlang (constructed language),' writes Manouach, and it has been developed through a variety of workshops and community events in museum and educational settings. Yet while *Shapereader* presents compelling ideas around the ways in which touch can be used to communicate, it also serves to flag up several complex challenges that touch presents to the notion of communication. Touch is spatially situated within a physical context, and a physical body, and cannot easily be transmitted or shared. The tactile experience's (non)-directionality is quite different to those produced by the distance senses that have tended to dominate communication technologies and cultures. And communities that develop through tactile means are uniquely fragile when touch becomes dangerous or taboo as has happened in the wake of the COVID-19 pandemic. This chapter takes Manouach's *Shapereader* as a focal point to examine some of these challenges and difficulties. It does not seek to critique *Shapereader*, at least not on its own terms, but rather to employ it as a means of bringing into focus questions about the limits of touch and the boundaries of its possibilities.

Ilan Manouach's Shapereader works from the premise of a tactile language: a series of plates forming an index are encountered through the fingertips and used to learn and understand the deployment of the symbols on those plates in larger sequences that comprise narratives such as *Arctic Circle*. As Manouach explains it, Shapereader is driven by a notion of community:

> Shapereader is a community-specific tactile conlang (constructed language). It was initially designed for the purposes of visually impaired subjects in regards to tactile textual production. It consists of an expanding repertoire of free-floating tactile ideograms (tactigrams) intended to provide haptic equivalents for all the semantic features, the conceptual functions and textual attributes of a story. Its design prioritizes simplicity and ease of memorization and addresses all users regardless of their nationality, language, educational level, or subsistence under any visual handicap.[1] By circumventing the verbo-voco-visual apparatus, it transposes semantic and syntactical structure cognizance to the reader's fingertips. Shapereader promotes an embodied textual experience.[2]

In this chapter, I take Shapereader as a starting point to consider the notion of touch as a communicative medium, and in particular as a means for starting to identify the *limits* of touch's communicative capacities. Here, I am interested partly in what Shapereader is and how it works, but also in how it might point to the ways that touch can fail and what this might mean for projects like Shapereader not necessarily in terms of what they *do* communicate, but what they *can* communicate (or not). While this may appear to be a critique of Shapereader, this is not my

[1] I am conscious that the term 'handicap' is a contentious one, which some readers may find offensive (Rose, Damon. "Don't call me handicapped!" *BBC*, last updated October 4, 2004, http://news.bbc.co.uk/1/hi/magazine/3708576.stm). It is not my intention to offend here, and I retain it here and later in the article only for the purposes of accuracy when quoting from Manouach's writing on Shapereader. I do, however, apologise for any offence this decision may cause.

[2] Manouach, Ilan. *Shapereader: Exploring Embodied Textualities*. (Echo Chamber asbl, n.d). 9.

aim: rather, in addressing Shapereader in this way, I hope to be able to 1) outline the shape of touch's communicative capacities, 2) understand what Shapereader is (and is not) doing to fill that shape, and then 3) identify the capacities that remain possible but are as yet unaddressed by Shapereader's specific instantiation of tactile communication. To do this, I explore four different aspects of Shapereader's engagement with tactile communications: knowledge, experience, spatial configuration and fragility.

Touch and Knowledge

Let us begin by considering the most obvious of Shapereader's properties: its tactile nature. In producing a tactile work, Manouach makes a statement that may appear straightforward but is in fact remarkably contentious: touch is a viable means of communication. Although there are certainly examples of tactile communication (perhaps the most famous of which is the Braille tactile language system), it is by no means the case that touch and tactility are well accepted as means of communication in a world that has been described as 'ocularcentric', i.e., dominated by vision.[3] We could add hearing to sight as the two primary sensory modalities for communication today. Both sight and hearing, though, are distance senses, and as such they are emblematic of the ways in which communication is understood: as something that happens at a distance and is somewhat ethereal, floating through the air as patterns of light and sound or transmitted electronically. Touch, by comparison, is intimate (it cannot happen at a distance or be transmitted) and slow. Today, touch is often restricted and controlled ('do not touch', being a common refrain in museums, although this is beginning to change, limited to particularly close or intimate relationships (hugging, sexuality), or used ceremonially/socially but in only a small capacity (handshakes, a kiss on the cheek).[4] Touch is not often seen as a means of communicating knowledge, and although there are clear cases in which touch *is* understood as a means of coming together, these are often ritualised and controlled. By suggesting that touch could be used for communication, Manouach is challenging the orthodoxy of an audio-visually dominated communications culture and opening up a new channel for consideration. This is an important conceptual move because in doing so, Manouach doesn't simply use existing terms to offer a new argument, he introduces a new set of terms into the conversation altogether and creates the potential for a new repertoire of communicative techniques and strategies.

That said, Shapereader's emphasis on and intervention into the possibilities of tactility are not unlimited in their potential to transform communication, because the basis for Shapereader's operation remains closely connected to existing communication concepts. This is made clear in Manouach's explanation of Shapereader as a system that seeks to '[circumvent] the verbo-voco-visual apparatus' in order to '[transpose] semantic and syntactical structure cognizance to the reader's fingertips'. Shapereader is a tactile alternative to information that would otherwise flow through the eyes (in written language or 'seen' comics) or the ears (in spoken language); it is not an assertion that tactile knowledge is meaningful in and of itself. In stating that Shapereader 'prioritizes simplicity and ease of memorization,' Manouach indicates that the project proceeds from a specific epistemological position, one which retains a Cartesian separation of body and mind. The requirement for the reader to remember particular shapes, and to put those shapes into syntactical relationships to each other, presupposes that the reader must hold ideas in their mind rather than engaging with knowledge through the bodily experience of touching. This is a subtle but important distinction, which situates Shapereader as a modern project, as David

[3] Jay, Martin. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. (Berkeley & Los Angeles: University of California Press, 1994).

[4] Azimi, Roxana. "Museums are letting visitors get to grips with the exhibits". *The Guardian*, last modified October 16, 2015, https://www.theguardian.com/artanddesign/2015/oct/16/museums-visitors-touch-feel-art.
Cf. Manouach, Ilan. "About." *Shapereader*, accessed January 22, 2021, https://shapereader.org/.

Howes makes clear in a discussion of Henry David Thoreau's writing on knowledge that comes from touch:

> Thoreau's speculations were in line with a longstanding philosophical tradition of attributing some form of intelligence to the sentient body – a tradition stretching back to antiquity. It is only with the rise of body-mind dualism associated with the work of the philosopher René Descartes that such bodily ways of knowing became alien to mainstream Western thought.[5]

The separation that occurred with the rise of body-mind dualism, and the devaluation of the 'body' aspect of that split, is part of what led to the elevation of the more 'dominating, rational, orderly' distance senses over the contact senses that Manouach's work starts to resist and (implicitly) critique.[6] But Shapereader does not in itself get to the fullest extent of this critique because it retains the notion that the body is a way to get to the mind. We may be able to change the specific bodily channel we use to get to the mind, but the mind remains our target.

An alternative approach, which might start to overcome this limitation (but brings its own, which I discuss below), would be rooted in an epistemology of touch on its own terms. This would mean accepting touch *as* knowledge rather than limiting our understanding to touch *as a route to* knowledge. To explore this idea further, let us consider an example from the Shapereader repertoire: 'the rain' (Fig. 1).

<FIGURE 1 HERE>

Figure 2: Shapereader's presentation of 'the rain'.

Here, we see a texture with a clear tactile referent that most people will be very familiar with. The relationship played out here between object and body is one of connection between stimulus (the shapes) and idea (the concept of the rain). Now consider the experience of actually being in the rain (try to recall an experience of being in the rain, don't confine yourself to the intellectual imagining of the concept). Consider what and how your skin knows in this situation. The experience of temperature, wetness and other sensations (such as slipperiness underfoot) provide knowledges that exceed but are not separate from the concept 'the rain'. These bodily knowledges are inaccessible to an epistemology rooted in Cartesian body-mind dualism, because they sit outside the mind, but that does not make them less real. This example demonstrates the epistemological limitation of Shapereader, but it is important not to overstate this critique, because while Shapereader *makes use* of touch, it is not *about* touch, at least not consistently. By this I mean that while the criticism outlined above is reasonable in relation to 'the rain', we could not make the same argument about all (or even most) of the concepts in the Shapereader repertoire. Had the example I used been 'a darkening mountain' (Fig. 2) it is difficult to see how this concept could have been accessed "directly" through touch given that 'darkness' is a visual idea and 'mountain' exceeds what we could reasonable represent using any single sense.

<FIGURE 2 HERE>

Figure 2: Shapereader's presentation of 'a darkening mountain'.

In much the same way as visual and verbal communication and knowledge structures must rely on conceptual knowledge (ideas) to operate, so too must Shapereader have some way to refer outside its own frame of experience. The rain, after all, is not a purely tactile phenomenon, it also has visual, auditory, olfactory and even gustatory qualities that Shapereader has here had to

---

[5] Howes, David. "Skinscapes: Embodiment, Culture, and Environment." *The Book of Touch*, ed. Constance Classen (Oxford & New York: Berg, 2005), 27-39. 27.

[6] Classen, Constance. "The Witch's Senses: Sensory Ideologies and Transgressive Femininities from the Renaissance to Modernity." *Empire of the Senses: The Sensual Culture Reader*, ed. David Howes, (Oxford & New York: Berg, 2005), 70-84. 70.

"translate" into a tactile form. The body-mind dualism is inescapable for certain purposes, including those to which Shapereader directs itself.

In this epistemological border zone, then, we discover one of the 'limits of touch' referred to in the title of this chapter. On the one hand, Shapereader's focus on touch opens up a new channel of communication, but on the other it employs this channel in a relatively restrained way, finding tactile answers to questions that were previously asked visually and aurally, but not yet starting to frame new, tactile, questions. In the longer term, Shapereader or its descendents may start to map these areas. For now, they remain unfilled spaces awaiting exploration.

Sharing Experiences

Another of the properties Manouach outlines in his description of Shapereader is its relative accessibility in endeavouring to be open to all readers 'regardless of their nationality, language, [or] educational level'. Here, Manouach echoes assertions made by various critics and scholars around the accessibility of comics. Scott McCloud, to give one famous example, suggested in *Understanding Comics* that: 'As the *Twenty First Century* approaches, *visual iconography* may finally help us realize a form of *universal communication*'.[7] More recent scholarship, however, has thrown this idea into question, with Neil Cohn's work on linguistics suggesting that the ability to understand comics is neither universal nor spontaneous, and involves processes of learning, much like a language.[8] Going beyond language, David A. Beronä's work on wordless comics has shown that images are also culturally encoded. He quotes Seymour Chatman's observation that "'the conventions are there and are crucial, even if self-evident and self-instructional [. . .] that they are conventions is clear enough'" before going on to observe of the reader's engagement with Hendrik Dorgathen's wordless comic *Space Dog* that the 'comic becomes more like a game of Pictionary when players have to decipher a phrase from the pictures presented by other team members'.[9] Without a degree of shared cultural understanding, communication becomes difficult, if not impossible: images are not acultural or transparent communicators of meaning.

In an ocularcentric culture, this presents a substantial challenge to the idea that tactile communication systems could be produced that achieve the openness and accessibility Manouach claims for Shapereader. The basis of this challenge is quite straightforward: if sight, a sense whose modality has given rise to a vast number of communicative forms of enormous diversity and range over thousands of years, has as yet proven incapable of producing a universal form, what hope can a relative novice such as touch have of doing so? One response to this challenge may come precisely from touch's novelty. Whereas visual forms of communication are now so highly elaborated as to be heavily coded and laden with previously accrued symbolic meaning, touch is starting from a (relatively) low base: we have few cultural touchstones for tactility. To demonstrate this bluntly, consider how easily you can bring to mind a visual (or indeed aural) stereotype, and then think about whether you can locate an equivalent tactile stereotype. You may be able to do so, but can you find them as easily or as numerously as their visual equivalents? This lack of tactile convention suggests that Shapereader's ambitions may be realisable, to some extent, because it is in a position to *form* tactile associations, rather than *following* those determined by existing cultures.

This does, however, point to a secondary complication: the risk of creating a codified cultural form that ultimately undermines its own ambitions of universality. This is evident in the way that

[7] McCloud, Scott. *Understanding Comics: The Invisible Art*. (New York: HarperPerennial, 1993). 58, emphasis in original.
[8] Cohn, Neil. *Who Understands Comics? Questioning the Universality of Visual Language Comprehension*. (London & New York: Bloomsbury Academic, 2021).
[9] Beronä, David A. "Pictures Speak in Comics Without Words: Pictorial Principles in the Work of Milt Gross, Hendrik Dorgathen, Eric Drooker, and Peter Kuper." *The Language of Comics: Word and Image*, edited by Robin Varnum and Christina T. Gibbons, (Jackson: University Press of Mississippi, 2001), 19-39. 29.

Shapereader 'prioritizes simplicity and ease of memorization,' as we discussed earlier. The notion that the tactigrams on Shapereader's index plates must be learned or referred to in order to derive the meaning of narratives like *Arctic Circle* immediately bifurcates the work's audience into those who understand it and those who do not. The former group might be further stratified by fluency. In attempting to escape the limitations imparted by language, Shapereader has come full circle and created its own (indeed Manouach describes it as a 'tactile conlang (constructed language)'), with all the complications that brings. An additional complexity comes from the fact that although Shapereader's tactigrams are simple and easy to memorise, they cannot be internalised or easily produced by its users, meaning that while its syntactic structures and promotion of an 'embodied textual experience' do work to suggest a linguistic experience, it is closer to that of an extinct or a dead language than a modern language, i.e., it is a language with no or few speakers. As its name suggests, Shapereader has the capacity to produce a community of readers, but at present there is little possibility of it producing a community of speakers or writers.

Ultimately, these issues speak to another of the limits of touch: the difficulty of sharing a tactile experience. Although Shapereader was produced through collaboration within communities, once it leaves those communities it has ceased to be "spoken" and its usability as a viable language form diminishes quickly because it cannot be shared by a community of "speakers". This does not inhibit its ability to operate as a work of art or a text/experience, whose authorial power lies almost exclusively with Manouach, but the principles of 'tactile conlang' and 'embodied textual experience' are certainly at odds with each other here. If tactile communication is to develop into a more active form in future, it may be instructive to turn not to language itself (efforts to create new languages are rare and even less often successful) but to a recent example of cultural shift: Web 2.0. This shift, which was characterised by a move from static web pages created by experts with specialised skills and substantial resources to user-generated content, has, for good and ill, resulted in an explosion of creative practice (understood loosely to include very basic forms such as functional communicative speech and writing) across the globe. Historically, tangible productions have been inhibited by material factors: the price of production and the skills required, but as new technologies such as 3D printing become increasingly accessible and mainstream in the coming decades it is conceivable that tactile communication strategies could start to become available to the general public. If this does happen, Shapereader (whose material form is not a massive distance from what might be achievable in a 3D printer) may well provide an instructive guide for the forms tactile languages and works might take in future.

Spatially Distributed Touch

A third aspect of Shapereader that bears consideration is its use of and interaction with space. In its physical structure, Shapereader comes close to the types of layouts seen in comics: textures are arranged in grids, which the reader encounters in sequence. This sequential encounter forms the narrative. In this regard, Shapereader does come close to the concept of 'sequential art', but the nature of touch produces an interesting set of additional considerations that speak to broader concerns about the nature of narrative in comics more generally. Chief among these, I would suggest, is what Charles Hatfield has described as the 'tension' between 'sequence and surface', i.e. between images seen in sequence as part of a narrative, and the overall arrangement of images on the page's surface.[10] I have written more on this distinction in relation to visual elements of comics elsewhere so will not repeat myself here, and other theorists such as Thierry Groensteen have also considered these types of relationships, drawing attention to the meaningful differences between strings, series and sequences, for example, along with larger

[10] Hatfield, Charles. *Alternative Comics: An Emerging Literature*. (Jackson: University Press of Mississippi, 2005). 48-58.

elements such as layout.[11] When it comes to touch, however, the relationship between sequence and surface operates somewhat differently.

Fundamentally, the notion of a tension between sequence and surface is premised on a visual understanding of meaning, since in Hatfield's work (and that of other theorists who identify similar concepts), it is discussed in terms of seen images and a form that is understood as largely, if not exclusively, visual in nature. Nevertheless, there are certain ways in which we might find comparable concepts addressing the other senses. Musical harmony, in which it is possible to simultaneously hear both a single "complete" sound and the multitude of instruments and voices that combine to produce it may be a close concept in the auditory mode. In the case of this and visual sequence/surface it is often possible to attribute a spatial quality to this tension: the elements in tension are differentiable spatially as well as in their specific properties. The surface is larger than the element in sequence, for example, and the "complete" sound is spatially larger than and locationally different to that made by a single instrument, in ways that are detectable by the relevant sense organ. Crucially though, although these senses do situate us in space, they also tell us something about the space itself.

When it comes to the contact senses, or those that sit on the boundary (smell can lay claim to being either a distance or a contact sense, depending on how we frame it), the picture is somewhat different, since these senses generally do not extend us very far into space – instead they give us information about things in contact with our bodies. Nevertheless, it is possible to conceptualise comparable concepts of tensions for the other senses. The multiple notes that unfold a perfume's scent over time while also sitting within an overall accord or bouquet suggests an olfactory equivalent, and the possibility of detecting particular quantities of the four or five primary tastes while also encountering an overall flavour (which incorporates smell) finds us a loose conceptual equivalent in gustation. What is missing in both cases, though, is the spatial element of the experience, since both smell and taste sit within the body. Technically it might be possible to say that, for example, we smell or taste differing quantities of stimuli in different parts of the nose or mouth (and there is a directionality to smell that gestures towards its potential to be understood as a distance sense), but this is not particularly meaningful in the way that detecting both the nature and position of a particular sound within an orchestra performance might be.

Like smell and taste, touch is a relatively focused sense that tells us about our immediate corporeality and its close environment rather than extending a great distance in space. We feel the temperature of the air or water that surrounds us but not the air we might be able to see fifty metres away (indeed sight can sometimes tell us more than touch about distant temperatures as when we see a road "rippling" in the heat). This presents something of a challenge for a project such as Shapereader, because while it can undoubtedly represent a sequence (by presenting a series of textures in a given order) it is less clear whether it can engage with the notion of surface. To do so, it would need to be possible for the reader to encounter some or all of the textures in a given work at the same time as focusing in on a particular part of the surface to locate oneself in the sequence (while reading panel two in a visual comic, one remains aware of panels one and three). In principle, this is not impossible since a reader could conceivably encounter one texture through their palm, and another through their fingers, but Manouach's description of the reader's engagement with Shapereader through their fingertips does suggest a certain directionality of touch that would seem to preclude this multi-tactile engagement. Another

[11] Hague, Ian. "Adapting *Watchmen*." *Framing Film: Cinema and the Visual Arts*, ed. Steven Allen and Laura Hubner (Bristol & Chicago: Intellect, 2012) 37-55
Groensteen, Thierry. "Narration as Supplement: An Archaeology of the Infra-Narrative Foundations of Comics." *The French Comics Theory Reader*, ed. Ann Miller and Bart Beaty, (Leuven: Leuven University Press, 2014) 163-181. 176.
—. *The System of Comics*. Trans. Bart Beaty and Nick Nguyen. (Jackson: University Press of Mississippi, 2007) 21-23.

option might exist in the possibility of using multiple fingers simultaneously to feel multiple textures, and then varying the reading "focus" through pressure. This might be somewhat akin to the experience of playing a chord on a piano, in which multiple keys are pressed simultaneously to create a harmonised sound.

In terms of conventional comics theory then, Shapereader would appear to offer *some* possibility to produce a tactile experience that in some ways replicates (or at least gestures towards) the conventional, i.e., visual experience of reading comics, but it is clearly limited in this capacity. Moreover, it has a reduced set of resources open to it in this regard because techniques such as layouts in which large scale arrangements of information come together meaningfully to create pieces that exceed the hands' capacity to experience as a whole are unusable in this format. This does not, however, mean that Shapereader is inherently "lesser" in terms of its communicative potential, because it makes use of tactile qualities such as texture (which can be understood visually but is not exclusively visual). Although the Shapereader boards are made of a consistent material, and therefore retain a consistent material texture, the arrangement of the shapes themselves does produce a variable tactile texture between tactigrams. These tactigrams include terms such as 'to listen', 'to float' and 'to creep eastward' to give just three examples.

<FIGURE 3 HERE>

Figure 3. Shapereader's presentation of 'to listen,' 'to float' and 'to creep eastward'.

If we take a closer look at these tactigrams, (see Fig.3) we can see that each of them has a similar physical feel in terms of their surfaces, but they nevertheless feel different to each other because the surfaces themselves are arranged differently (i.e., they all feel hard, but only 'to creep eastward' feels sharp). Similarly, the boundaries (the panel borders and gutters) of the Shapereader layouts are shaped and arranged meaningfully, in a way that parallels the distinction between panel layouts in a comic and the arrangement of text in sentences in a prose novel. In this regard Shapereader *does* make use of space understood through touch, but our understanding of that space is significantly different to that proposed by the sequence/surface distinction because of the differing affordances of sight and touch. Shape and space are not exclusively visual, but their navigation through touch requires different approaches to navigation through sight, and the mechanisms for this navigation are what Manouach begins to develop in Shapereader.

On the one hand, comics theory's advanced understanding of the relationships between space and narrative would seem to offer much to the development of a wide range of forms, including that found in Shapereader, and Shapereader appears to present productive possibilities for advancing our understanding of comics narratives. On the other hand, that very theory's emphasis on *visual* concepts, and in some cases the explicit rejection of comics' non-visual properties and possibilities, would seem to hive off Shapereader into a different sphere of cultural production, which we might loosely term "tactile narratives," whose conceptual parameters are less well developed than that of "graphic narratives" (although this is not to say that there is no context for this: there are some well-established language systems to refer to in this regard that may then be relatable to concepts of narrative, including Braille, Hands-on Signing/Co-active Signing, Deafblind Manual, Block and Tadoma).[12] At the very least, it is clear that comics theory's ocularcentrism is a limiting factor in the ability of that theory to engage with expanded forms of comics that utilise different communicative channels and sensory modalities.

In a sense, this appears to point to another of our limits of touch: the minimal amount of theoretical work that currently exists on non-visual aspects of comics means we have relatively

[12] Deafblind UK. "Communication." *Deafblind UK*, 2021. Accessed January 20, 2020, https://deafblind.org.uk/information-advice/living-with-deafblindness/communication/.

little to help us understand and explain tactile narratives. Moreover, while I have confined my remarks here to a small section of comics scholarship, this situation is replicated in culture at large. To put it bluntly: we don't yet know what to do with tactile narratives. A less forthright version of this might read: we don't yet have cultural contexts into which we can comfortably place works like Shapereader. That said, this situation is beginning to change, for two reasons, which I do not have space to fully unpack here but have covered in detail elsewhere. The first is the development of an increased emphasis on sensory and (particularly) material aspects in comics scholarship.[13] The second is the increasing prevalence of creators who are utilising new production technologies (including but not limited to digital comics platforms) to produce alternative or multisensory modalities for comics communication, and Shapereader would fall into this category.[14] In future, we may see a substantial expansion of the *contexts*, theoretical and cultural alike, into which we might place works like Shapereader. For now, Shapereader is an instructive example of the complexities that arise when works appear that confound existing categories.

Touch's Fragility

The final points I would like to touch on in considering Shapereader are the changing audiences and modes of reception that Shapereader implies by comparison with conventional comics, i.e., not the object itself but its users and possible users. This might be seen as a corollary of all three of the ideas discussed so far in this chapter (knowledge, conceptual shareability and spatial contexts). Manouach's positioning here is clear: Shapereader is a community produced work, intended 'for the purposes of visually impaired subjects in regards to tactile textual production'. In explicitly engaging with visually impaired readers, Manouach challenges the primacy or exclusivity of the visual mode in comics communications and opens up new possible audiences for comics and related forms. On its own terms, this is a worthwhile endeavour for a variety of reasons ranging from the ethical to the commercial, and it does go some way towards opening up new spaces in the theoretical and cultural contexts I discussed above and have explored in more detail elsewhere.[15] Fundamentally, Shapereader emphasises, it *is* possible for blind and visually impaired readers to engage with comics in meaningful ways through the sense of touch. That said, Shapereader does not fall into a simple deficit model of disability that frames sight as something "missing" and attempts to compensate for this perceived lack. Rather, Shapereader implies through its appeal to 'all users regardless of [. . .] any visual handicap' that its objective is the addition of a new sensory modality to an existing repertoire. This modality may be of more relevance to a particular segment of the comics reading audience, but it is by no means exclusive to them, and nor is it unavailable to those who do not have 'any visual handicap' at all (though it may be experienced differently).

Yet this notion of an expanded audience must be balanced against the final of our limits of touch, which is its fragility. I have already mentioned aspects of this fragility in my discussion of the shareability of the Shapereader repertoire and the difficulty of producing new "speakers" or "creators" of the Shapereader language, but here I want to focus on the other side of this coin: reception. At the most basic level, Shapereader is difficult to access and this difficulty comes largely from its tactility. Because the contact senses require *contact* between the body and the sensed object, accessing tactile materials is simply not possible at a distance (this is also related to the points made about touch and space above). Writing now, in early 2021, we have not yet

[13] Hague, Ian. "Sidebar: Materiality." *The Secret Origins of Comics Studies*, edited by Matthew Smith and Randy Duncan, (New York & Oxon: Routledge, 2017) 159-161.
[14] Hague, Ian. *Comics and the Senses: A Multisensory Approach to Comics and Graphic Novels*. (New York & Oxon: Routledge, 2014).
[15] Hague, Ian. *Comics*, 2014. Further writing on this subject, including a discussion of Shapereader, can be found in Lord, Lacey. *Comics: The (Not Only) Visual Medium*. MSc Dissertation. (Massachusetts: Massachusetts Institute of Technology, 2016).

developed transmissible textures (although there are some examples of haptic technology that can produce replicable or transmissible tactile experiences, such as the vibration systems found in many video game controllers). This means that without visiting a Shapereader installation, there is no way to access the text or experience the work. Of course, this problem is not unique to Shapereader *per se*; the issue is replicated for any piece of installation art or architectural work. But such works do not claim to be a language, produced by a community effort, and they are not, therefore, subject to questions on the terms of language. That said, if we do define Shapereader, or at least the physical instantiation of Shapereader, as an installation, it does largely get around this issue.

At the time of this writing, however, there is a more pressing concern that marks up the fragility of touch in a more stark and urgent way. I am writing this in January 2021, in the midst of the Covid-19 pandemic that has exacted a brutal toll on people and communities around the world. This has made activities such as travel extremely challenging, and on a purely practical level (albeit one which demonstrates the point I made above about the challenge of access) has meant that in preparing this writing I have not been able to experience a full example of a Shapereader text. Ilan Manouach was kind enough to supply me with a small example of the physical form of the Shapereader repertoire (which was also used to create the images illustrating this chapter), but encountering the work in full has simply not been possible, which is the reason I elected to approach this chapter from the position of limits and omissions: speaking about absences was the only way I could see to develop a meaningful engagement with the absent text. But Covid-19 has done more than made access inconvenient: it has also reformulated the way that we think about touch in fundamental, and potentially damaging, ways. Cultural constraints around touch and touching have been strengthened by medical and political discourses that caution against contact. Tactile interactions have been framed as dangerous and contaminating, with the consequences of unconsidered touch (of objects as well as people) presenting a significant risk to health: touch has literally become a risk to life.

And so, Shapereader's final indication of the limits of touch is a sad one. The production of a work whose entire existence is predicated upon a community striving to come together and communicate through the sense of touch demonstrates just how fragile that communication can be. Moreover, it prompts us to consider the fragility of the community that forms around the tactile encounter. This would potentially include communities with visual impairments but, perhaps even moreso, those with dual impairments such as deafblind communities, which are still more reliant on touch as a mode of communication and connection. These groups have been heavily impacted by Covid-19, in ways that sighted individuals often struggle to grasp.[16] For communities organised around touch, tactility is not an optional extra, it is an essential quality of existence, and it behoves us to remember this as we think about the multisensory form.

* * *

Over the course of this chapter, I have taken Ilan Manouach's Shapereader as a focal point for a discussion of the possibilities of touch as a communicative system. Although I have mentioned certain communities, particularly the visual and dual-impaired communities, I do not claim to know enough to speak for these communities, and nor would I suggest that the work I have undertaken here represents a specific intervention on matters particular to those communities. Rather, my approach here has been to consider Manouach's stated aims, and to think through what they might mean for the notion of touch as a mode of communication and engagement, particularly in relation to notions of comics. I have done this by looking at four key areas:

[16] Pollack, Dorianne. "As A Blind Person, COVID-19 Has Changed My Daily Life In Ways Most People Don't Consider." *Huffpost*, last updated January 18, 2021, https://www.huffpost.com/entry/blind-visually-impaired-coronavirus-pandemic-impact_n_60019b5ac5b6ffcab963c825.

knowledge, shared experiences, space and fragility. In each of these cases I have attempted to show not only what Shapereader *does* do and *can* do, but also how the things it does not or cannot do might enhance our understanding of the tactile narrative project as whole: marking up the borders of the field with varying degrees of definition and suggesting spaces into which the field might develop beyond the specific possibilities realised by Shapereader itself. It remains to be seen how tactile narratives will develop in future, and how the challenges presented by phenomena like Covid-19 will be overcome. Nevertheless, the existences of experimental works, and creators like Manouach who are engaged enough to produce them, give us good reasons to be hopeful.

Reference List

Azimi, Roxana. "Museums are letting visitors get to grips with the exhibits". *The Guardian*, last modified October 16, 2015, https://www.theguardian.com/artanddesign/2015/oct/16/museums-visitors-touch-feel-art.

Beronä, David A. "Pictures Speak in Comics Without Words: Pictorial Principles in the Work of Milt Gross, Hendrik Dorgathen, Eric Drooker, and Peter Kuper." *The Language of Comics: Word and Image*, edited by Robin Varnum and Christina T. Gibbons, (Jackson: University Press of Mississippi, 2001), 19-39.

Classen, Constance. "The Witch's Senses: Sensory Ideologies and Transgressive Femininities from the Renaissance to Modernity." *Empire of the Senses: The Sensual Culture Reader*, ed. David Howes, (Oxford & New York: Berg, 2005), 70-84.

Cohn, Neil. *Who Understands Comics? Questioning the Universality of Visual Language Comprehension*. London & New York: Bloomsbury Academic, 2021.

Deafblind UK. "Communication." *Deafblind UK*, 2021. Accessed January 20, 2020, https://deafblind.org.uk/information-advice/living-with-deafblindness/communication/.

Groensteen, Thierry. "Narration as Supplement: An Archaeology of the Infra-Narrative Foundations of Comics." *The French Comics Theory Reader*, ed. Ann Miller and Bart Beaty. Leuven: Leuven University Press, 2014. 163-181.

—. *The System of Comics*. Trans. Bart Beaty and Nick Nguyen. Jackson: University Press of Mississippi, 2007. 21-23.

Hague, Ian. "Adapting *Watchmen*." *Framing Film: Cinema and the Visual Arts*, ed. Steven Allen and Laura Hubner. Bristol & Chicago: Intellect, 2012. 37-55

—. *Comics and the Senses: A Multisensory Approach to Comics and Graphic Novels*. New York & Oxon: Routledge, 2014.

—. "Sidebar: Materiality." *The Secret Origins of Comics Studies*, edited by Matthew Smith and Randy Duncan, New York & Oxon: Routledge, 2017. 159-161.

Hatfield, Charles. *Alternative Comics: An Emerging Literature*. Jackson: University Press of Mississippi, 2005.

Howes, David. "Skinscapes: Embodiment, Culture, and Environment." *The Book of Touch*, ed. Constance Classen. Oxford & New York: Berg, 2005, 27-39.

Jay, Martin. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. Berkeley & Los Angeles: University of California Press, 1994.

Lord, Lacey. *Comics: The (Not Only) Visual Medium*. (MSc Dissertation). Massachusetts: Massachusetts Institute of Technology, 2016.

Manouach, Ilan. "About." *Shapereader*, accessed January 22, 2021, https://shapereader.org/.

—. *Shapereader: Exploring Embodied Textualities*. (Echo Chamber asbl, n.d). 9.

McCloud, Scott. *Understanding Comics: The Invisible Art*. New York: HarperPerennial, 1993.

Pollack, Dorianne. "As A Blind Person, COVID-19 Has Changed My Daily Life In Ways Most People Don't Consider." *Huffpost*, last updated January 18, 2021, https://www.huffpost.com/entry/blind-visually-impaired-coronavirus-pandemic-impact_n_60019b5ac5b6ffcab963c825.

Rose, Damon. "Don't call me handicapped!" *BBC*, last updated October 4, 2004, http://news.bbc.co.uk/1/hi/magazine/3708576.stm