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RESEARCH

The Question Concerning Comics as Technology: *Gestell* and Grid

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In this article we argue that the comics grid, the array of panels, can be understood as a specific technology of 'revealing' through 'enframing' and as such is the key element in comics technology. We propose Martin Heidegger's conceptual framework (*Gestell*: literally, 'the framework'), primarily discussed in his 1954 essay 'The Question Concerning Technology' (1982) as a strategy that can be used to engage critically with panel layout in graphic narratives, concluding that the role of the grid in comics and the way that new technologies put that grid to work both in the production and consumption of comics means that comics embody the relationship between technology, storytelling and materiality. In an age in which most of the screens that dominate our information-filled lives are rectangular, we argue that the purpose of the grid is to manage a potentially overwhelming sublime space.

Keywords: Critical Theory; Graphic Novels; Interfaces; Martin Heidegger; Philosophy

Introduction: What is the Matter of/with Comics?

The comics grid, the array of panels, can be understood as a specific technology of 'revealing' through 'enframing' and as such is the key element in comics technology. We borrow the terms 'revealing' and 'enframing', and their conceptual framework, from Martin Heidegger's concept of the *Gestell* (literally, 'the framework'), which the philosopher discussed primarily in his essay 'The Question Concerning Technology' (1954). We are intrigued by the relationships that the comics grid, if it can be understood as a type of technology, engenders and/or participates in. Does the comics grid presuppose or even require a material page? Even if the grid once upon a time depended upon this materiality, in the form of periodical comic books, albums or

collected editions (paperbacks or hardcover publications) we wonder whether it is now possible to throw the material support away like Wittgenstein's ladder: a tool that helped us get to a new place but can now be discarded (*Tractatus Logico-Philosophicus*, 1922, 6.54 [2018]).

There have been, of course, several other approaches to understanding the comics grid. For instance, in Pierre Fresnault-Deruelle's 1976 essay, 'Du linéaire au tabulaire', comics are presented as the result of practices that can be 'antagonistic'; the comics grid, formed by the 'strip' (linear) and the 'full page' as a series of strips (tabular), becomes the main trait of the practice known as 'comics' or 'BD'. Thierry Smolderen's *The Origins of Comics* (2014), historicises the development of comics, looking into the role the printing press and other 20th century technologies have played in defining our current understanding of comics. Smolderen argues that what seems obvious to us now in relation to reading comics or recognising comics *as* comics is far from it; rather it is the result of a complex series of technologically-driven innovations. Both Fresnault-Deruelle's and Smolderen's approaches, like the one presented by Thierry Groenseen in *The System of Comics* (the page as 'technical unit', 1999, 2007), take the printed page for granted, and always-already associate the linearity and tabularity implicit in the comics grid with the technology of the printing press, and of print as the essential material support for comics.

Other theories of the grid have also been used to engage with comics. Discussing the comics of Joe Brainard, Daniel Worden applies Rosalind Krauss's ideas on the grid in modernist painting. Krauss, Worden explains, 'demonstrates how modernist painting is premised on a mythological origin point, the grid'. Worden concludes that the grid, for Krauss, 'is both the structure of avant-garde painting and its repressed unoriginality, a structure that is critiqued and liquidated by postmodernism' (Worden 2015). Krauss's grid indeed has 'structural properties' (Krauss 1986: 7), but her focus on 'grid-scored surfaces', is representational pictorial matter that defies and rejects narrative (Krauss 1986: 8), not necessarily a framework.

What comics 'is' or 'are' has concerned comics scholarship for years, and in its own way it resembles Heidegger's preoccupation with the question of being. The definition of comics as an 'art', 'language', 'medium' or 'system' is in itself a complex debate

with a rich history. In a 2007 paper questioning the necessity for the ongoing interrogation of the different definitions of comics, Aaron Meskin argued that 'it might be crucial to our critical purposes that we know what to expect- and what not to expect- from the art of comics' (2007: 378). Nevertheless, he stated that 'there is no pressing need to come up with a definition', because 'necessary features are not the most critically relevant'. Instead, he proposed that what is needed is 'close examination of the medium, not necessary and sufficient conditions.' (2007: 379). How should we carry out this close examination, if not by also detecting some standard features in existing examples? How can we 'expect' instances of comics to reveal themselves, now and in the future? (Priego 2014; Herd 2014; Wilkins 2014). Materiality is a key issue here: once the comic can be lifted from its previously necessary material supports and turned into code that can be recast on a digital display, what happens to the spatial concepts of the grid, the page, the book? (On comics as 'interface narratives', see Rageul 2018; on comics and 'machine reading' and 'machine making', see Wright 2014). Are we in a situation where an old medium is the content of a new one (McLuhan 1964, 1997)? Or does the song remain the same when played on a new instrument? Do different ways of consuming comics mean a radical transformation of the art form itself?

The previous questions remain as provocations for further research and as the inspiration for our investigation into possible avenues for theorising comics as an art in the context of evolving technologies. Heidegger discussed how the Greek term *techne* also referred to the fine arts. *Poiesis,* Heidegger reminded his readers, meant a 'bringing-forth'. For Heidegger there was *poiesis* in *techne*, and both terms belonged to *aletheia,* a 'fundamental disclosure' or 'revelation'. Our contention is that as long as the grid is the key structure of producing and consuming comics, the art form persists as a relatively undisturbed continuation from its origins rooted in the technologies of print. The grid is always-already the transition point between the physical materiality of the book and an abstract, conceptual arrangement of space. As long as we can see it, get a glimpse of it, or even think it, the grid performs its work. This status does not mean that the grid will persist eternally as the underpinning of comics technology. Indeed, the grid's historical emergence gives rise to the question of

what comes after it. Nevertheless, for now, we suggest the grid remains the essence of 'revelation' in comics.

Why Heidegger?

Heidegger's concept of *Gestell* refers more to a conceptualization of the world and its resources more than to any particular instrument. This attitude is one of enframing that orders the world in such a way that it becomes 'a standing reserve' ('*Bestand*', also translated as 'stock' or 'stockpile'; Zuern 1998) that can be delivered into the system of use value. An 'enframed world' is one in which everything is extractable and usable, including human beings themselves. We suggest that the *Gestell* depends on the imposition of a rectangular multi-frame on the world to order it: consider the demarcated fields of a farm, the street pattern of the contemporary city, or the structure of a high-rise apartment block. All these are means of managing resources (reserves; stock) through enframing: grain, transit, labour. We note that the grid does not necessarily have to be regular or perfect. It just has to apportion space in a way that creates and fulfills expectations about where one might go within it to find something and bring it out. We argue that the comics grid is an aesthetic analogy of the *Gestell*; that we 'read' comics in the context of technological enframing.

We find it curious that comics, an art form that until recently has been considered disposable and ephemeral, is the one that engages so clearly with modern technological enframing. Indeed, the metaphors that Heidegger uses, likening the *Gestell* to a skeleton, a framework, or a book case, may as well be referring directly to the comics grid as a system that brings processes and things together in a concerted, directed, interlocking way. Furthermore, enframing is also a revealing, a setting up of things to be unfolded and unlocked, like the *poiesis* of a work of art that makes something emerge that did not previously exist. We contend that the comic is an articulation of technological and aesthetic revealing: the intersection of the totalising 'danger' of technology and the 'saving power' of art (for further clarification on Heidegger's terminology and its applications on visual culture, see Gardiner 2014 and Jay 2014).

With Heidegger's *Gestell* in mind, the comics grid becomes something other than a neutral element or convention. Rather it is a particular means of revealing space on the page and of connecting the different panels. Consider Thierry Groensteen's

remarks on the iconicity of the grid itself: 'The traditional schematic representation of a comics page is nothing more than a grid where the compartments are left empty, the "skeleton" being only the body of the evoked object' (Groensteen 1999, 2007: 1.2). The grid reveals space as standing reserve of depictions and words set in relation to each other.

The grid occupies a transitional position between formal device and ontological force of enframing; it lends to comics a way of technological thinking that functions across the modern western world on multiple fronts. But perhaps only in comics does the grid function aesthetically, yielding pleasure as much as content or resources. The grid represents the liminality of *techne* and art, the tension between the merely functional and the beautiful. It is the technological feature of comics that allows the art to happen. Manipulations of the grid—such as breaking regularity, insets, and different sizes of panels—illuminate this tension between *techne* and art because we only notice it when it is disrupted. The grid is like the stage technology in theatre or musical performance: sometimes we ignore it; sometimes it intervenes in the action in a particular way and is made meaningful. Consider Es Devlin's stage design for Wire's performance of *Flag: Burning* in which the members of the band ended up in boxes, separate from each other (Devlin 2003).

A common artistic complaint is the horror of the blank page, but the set-up of the page can mitigate that horror: lined paper invites writing as tracking while graph paper invites geometrical placement. A regular comics grid functions like a piece of graph paper in the way it invites arrayed figural depiction. The grid can be used more technologically: when it is consistent, steady, indifferent; or the grid can be used more artistically when the artist alters it to achieve certain effects or to provide variety in presentation. We could say the grid is more aesthetic the more our attention is drawn to it and more technological the more we ignore it as something neutral in itself.

The Comic in the Age of Mechanical Reproduction

To consider Walter Benjamin, the grid is what denies comics art (but not 'comics') an 'aura' (Benjamin 1935 [2002]). Not just in the sense that the comic book is an obvious result of mass production but also in that the dividing up of space into panels

connected by the grid detracts from the singular authenticity and mystique of the individual image. As each panel becomes one among many, it becomes a part of the whole, a part we don't linger on unless we make a conscious effort. The individual drawing works in service of the larger system that the grid enables. Heidegger's point about the danger of enframing is that it subjects and subordinates as it reveals; that which is enframed is no longer anything special. It is just one more component in a totalizing technological enframing.

Transitoriness is thus a feature of the grid, moving us along as it organizes space, though not necessarily in a continuous forward motion. The grid operates oppositely to the frame around a painting in that its job is to contextualize a panel among others rather than to isolate a singular work of art from the world around it. Unlike film, which moves its images for us, the comics grid demands the movement of our eyes through and around it for us to make it work. Even though film itself is not obviously delivered by means of a grid, various directors have chosen to manipulate the grid as a means of revealing. Consider Alfred Hitchcock's *Rear Window* (1954, 2001; **Figure 1**) or the various forms of compartmentalization in Wes Anderson's films, particularly *The Life Aquatic with Steve Zissou* (2005). While film comes at us, comics

Figure 1: Still from *Rear Window* (dir. Alfred Hitchcock 1954). © 1954 Universal Pictures.

require that we go at them with a double movement of the eye and mind: the linear tracking that is familiar to us in reading words and the free scanning we use to look at a photograph or a painting. This double movement, with its maximization of the verbal and visual information that the comics page makes available, echoes the totalizing quality of the *Gestell*. The framework maximizes what lies within it.

As our references to city plans and apartment blocks suggest, the grid is an abstraction made concrete in the world and is an element of modernity built into the work of the comic, just as it is built into the work of so many things that humanity has imposed upon the world. As such, the comics grid is one grid among others and participates in all binary relationships of the modern technological world: speed and stasis; excitement and boredom; consistency and surprise; abstraction and mimesis; enframing and standing reserve. In the case of the comic, the grid paradoxically turns the drawings in the comic into both potential and kinetic meaning, through the relationship among the panels; it creates a sense of movement and interconnectedness even though it holds the drawings static.

Once we create a grid, we can draw things out of it. An example that immediately comes to mind is Paul Karasik and David Mazzucchelli's comics adaptation of Paul Auster's *City of Glass* (1994; **Figure 2**). On page 4, the regular 9-panel grid shows a progression of panels that zoom in incrementally from clearly figurative representation (the building, the windows) to geometric and organic abstraction (shapes suggesting a puzzle or labyrinth's walls; the fingerprints), only to gradually zoom out again. There is an effect of restriction and surveillance, where the rigidity of the grid and the individual drawings and patterns contained within them reveal the close relationship between layout, graphication, content and plot.

Once again, to give a non-comics example, Hitchcock's *Rear Window* (1954, 2001; **Figure 1**) provides a fruitful analogy. Jeff Jeffries' broken leg prevents him from moving so he is forced to look out his window all day at other windows that produce narratives that Jeffries' gaze binds together. The framework of the windows allows us to see not only the murder that transpires behind one set of windows, but the relationship between that murder and what is happening behind all the other windows:

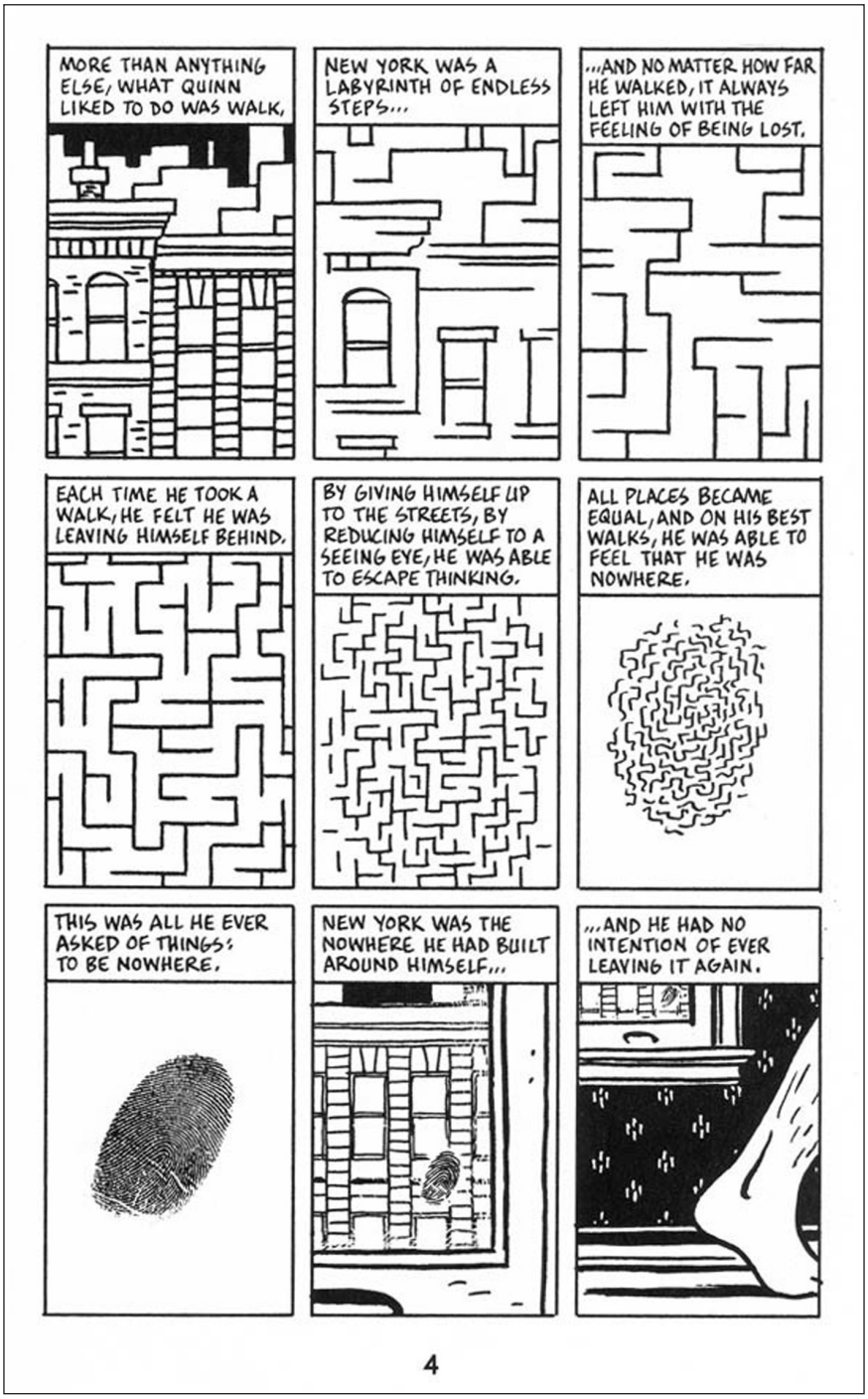

Figure 2: Page 4 from Auster, P., Mazzuchelli, D., & Karasik P. (1994). *City of Glass; A Graphic Mystery*. New York, NY: Avon. © 1994.

all stories of sexual relations between men and women. *Rear Window* stages the act of looking at an enframed space in such a way that one can extract narratives from it as if they were ore from a mine. This is precisely the way the *Gestell* works: disparate entities are drawn together and interlocked in a way that makes extraction/revelation more efficient. As Heidegger suggests, the *Gestell* is the interlocking of what it holds up, presents, and reveals.

How Does the Grid Reveal?: Sequence and Synopsis/Reading and Looking

The way a comic is gridded has a significant effect on our audience experience. The regularity of the grid is a contract with the reader, a promise of how revealing will take place. Frank Santoro calls the grid a 'timing system' (Santoro 2018), meaning that the number of panels on a page tells us where to look for beats of meaning (Groensteen 2011, 2013: 7.2). If the grid is haphazard or illogical, our reading/viewing experience is too.

'Serious' comics either tend to play with stable grids and their defined constraint or to challenge the concept of this constraint by reflexively manipulating the grid to draw attention to its arbitrariness as in Chris Ware's *Building Stories* (2012) or Joe Sacco's work. A regular six panel grid is perhaps the most common Western art comic grid: used by creators from Jason and Gilbert Hernandez to Julia Wertz. The more regular the grid, the more emphasis on revealing, *poiesis*. But the regularity of grid only generates meaning if there is a relationship between the whole grid and its parts. Comics' multiframe (Groensteen 1999, 2007) may have originated as a technology specifically dependent on a rectangular piece of paper, but it is no longer bound to that materiality. The comics grid simply requires a compartmentalized, singular field of view. The screen of the tablet or computer continues to provide this field even in the absence of paper. This is true on the production side of comics as well, in the form of the Cintiq drawing tablet, or the user interfaces of software from ComicLife (Plasq) to the Adobe suite and MangaStudio (SmithMicro).

What has changed with the screen is the means of navigating the grid. Through Comixology's Guided View (Iconology 2013) or Sequential's Panel Mode (Sequential, n.d), these systems isolate frames or sections of frames one at a time

Figure 3: A panel (and two halves) from Jeff Smith's *Bone* as viewed on Comixology's Guided View™. Smith, J. *Bone* (1991–2004). Image Comics and Cartoon Books. Bone is © Jeff Smith. 'comiXology' and 'Guided View™' are © Iconology Inc. Comixology is an Amazon.com, Inc. subsidiary.

(**Figure 3**). It is an open question whether these technologies help us to understand comics better, but our concern is how they relate to the grid as a revelatory structure. Clearly they exert pressure to make comics grids more regular, as irregular shapes are less easy to isolate. Manga, which tends to have more irregularly shaped panels can be particularly difficult to read on such systems.

The panel by panel viewing technology arises out of the field of view limitations of mobile phone and tablet screens, which are too small to present the entirety of a grid clearly but can display an individual panel better than a print comic by providing a zoom effect that allows the panels to have an intensity unavailable in print comics. However, the isolation and sequential presentation of panels creates a linear tracking that inhibits our ability to scan the entirety of the page and move around it in different patterns. They tend to present the comic as a series slides in a Microsoft PowerPoint presentation. And we think we can all agree that if a delivery mode turns comics into the equivalent of a PowerPoint presentation, something is wrong. This 'wrongness' stems from the potential loss of the *Gestell* and its standing reserve as we see the parts and not the whole.

Comixology may be indicative of a new kind of world picture with a new kind of frame (the frame of the tablet or the mobile phone) that introduces a crisis to both linearity and gridded Cartesian space, so that the 'old' frame as stabilizing structure in comics gets torn apart in favour of disconnected series. Scrolling, swiping, and pinching become the new gestures that operate the new frame. But this movement into the new world picture has met with resistance, several newer comics on Comixology and Sequential, particularly manga, are being presented in fixed format at the demand of readers so that the technology won't break down the grid panel by panel. Of course, the reader can still pinch and zoom, but that does not provide the same discrete breakdown of the panels.

This current reader resistance may be temporary as the technology of consumption adapts to or overtakes the technology of presentation. The technology of the physical book was complementary to the technology of the grid. Will this be true of the technologies of the new world picture? Comixology may be a boon to comics, making them more accessible and 'readable' but what will it do to the grid? Maybe the days of the grid are over. Different viewing systems allow for distinct ways of relating panels to grid.

We have referred to how Comixology's Guided View allows us to get a full-page view prior to proceeding through the panels one by one, and again once we have reached the final panel on the page. However, it is possible to bypass the grid altogether by setting up Guided View so that it never gives whole views of pages. In the Sequential app, if we select 'Panel View' we never see the grid. What happens then? In this case comics truly do become 'sequential art' (Eisner 1985 [1992]), as we lose the synoptic view altogether.

With that loss, comics also loses its particular power of revealing through enframing, which invokes something other than linearity; this power demands a two-dimensional spatial array, a multi-frame, that we can look at as well as read. In this sense, the term 'sequential art' does comics an injustice. The *Gestell* allows us to theorise comics in a way that is not so dependent on such linearity (or, to evoke Fresnault-Deruelle (1976), where the interconnection between linearity and

tabularity becomes relevant in terms of what it reveals). The question is whether the new way of reading comics will obliterate that theorisation.

The page shown above from Jason's *Hey, Wait...* (Jason 2001; **Figure 4**) demonstrates how the grid reveals in multiple ways, defying the notion of singular sequence

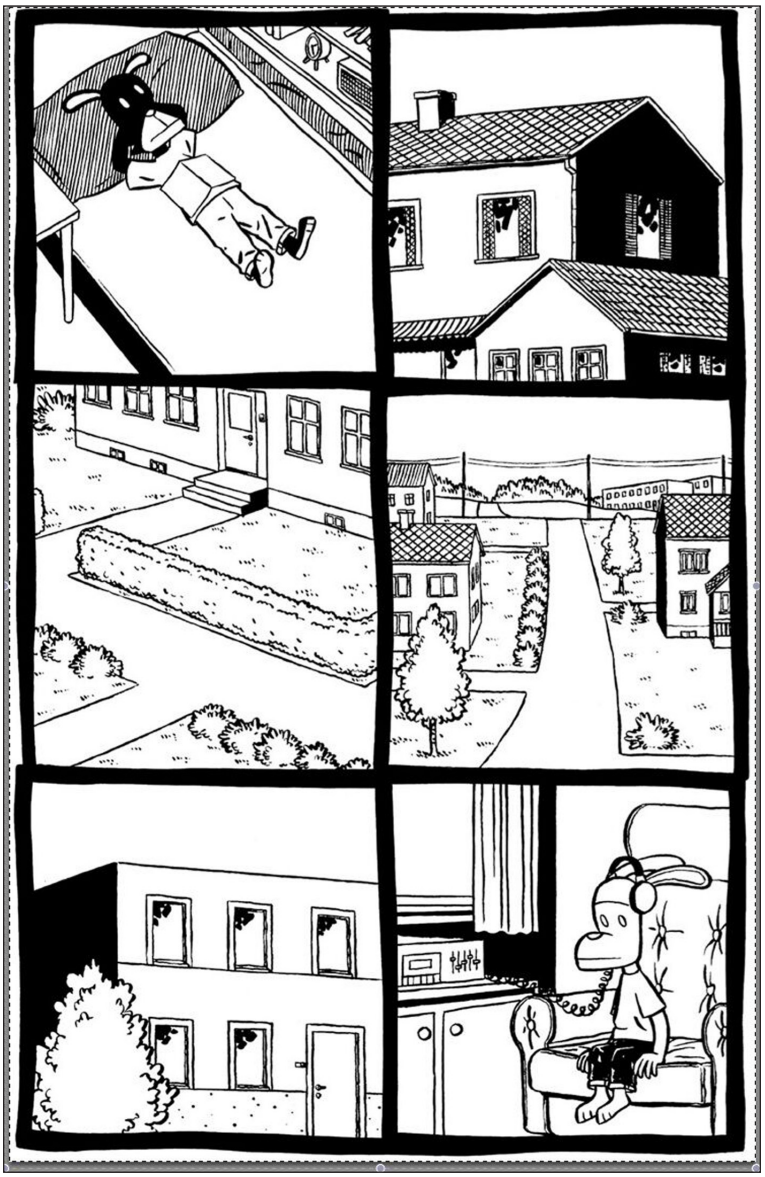

Figure 4: A page from Jason's *Hey, Wait!...* Jason. (2001). *Hey, Wait...* Translated and edited by Kim Thompson. Seattle: Fantagraphics. © 2001.

(cfr. Schneider 2010; 2016). We can read the page as if the panels were slides in a slides presentation but doing so would be to lose the complexity of the relationships on the page. For instance, Jon in the top left panel and Björn in the bottom right panel call to each other from across the page as if connected by the wire on Björn's headphones. The building in the top right does the same to the building in the bottom left. These four panels create a visual chiasmus. The middle panels suggest a path between the two buildings and the two boys, reinforcing the previous two relationships. But the boys remain static; only the reader's eyes make the journey.

To think about this page in Heidegger's terms, we might say that the enframing of the page puts every component of the page into a potentially meaningful visual relationship with all the other components. Heidegger writes of the *Gestell* as having a dangerous totalizing aspect, turning everything into standing reserve, but it also evokes the aesthetic interconnectedness of the work of art: a comics page such as this one. It is worth thinking about the divergent value of technological and aesthetic interconnectedness: threatening in the one instance but pleasing in the other. When we consider that this particular version of the comics grid also contains other grids, such as the habitation grid and the city grid, the relationship becomes uncanny because the grid is defamiliarised and refamiliarised repeatedly. (Once again, consider the regularity of the 9-panel panel page in *City of Glass* in **Figure 2** and how the rectangular shapes and reticular/tabular shapes both free and restrict the narrative flow, form and plot).

Simon Grennan's *Dispossession: A Novel of Few Words* (2015) presents a radical exploitation of the six-panel grid. Each page is a singular unit of composition and has the effect of being a self-contained strip; there is no enjambment from one page to the next. While the succession of panels gives the narrative a consistent forward movement, the visual relationships among the panels create other kinds of movements. Each page gives the effect of circling around the scene, of moving 'around' rather than just forward. Furthermore, the pages have internal patterns: usually the first three panels and the second three panels work together, but sometimes the first four and final two panels work together. Each page is a bit like a sonnet in poetry: each panel a stanza with a rhyme scheme (**Figure 5**).

Figure 5: A page from *Dispossession: A Novel of Few Words*, by Simon Grennan. Grennan, S. (2015). *Dispossession: A Novel of Few Words*. London: Jonathan Cape. © 2015.

If we read *Dispossession* on Guided View or Panel Mode, without looking at the grid, just the panels, does this waltz-like structure persist? Or does the relationship among panels that the grid establishes just disappear?

The techniques of exploiting the grid are intended to create a visual equivalent of Anthony Trollope's writing style of equivocation in *John Caldigate* (Trollope 1879)—it begins with the word "Perhaps"—which is what *Dispossession* enframes as standing reserve. Grennan aims to provide something other than a graphic adaptation as sequence of events. Rather, his point is to adapt a writing style into a visual analogue by means of enframing. The multiple patterns permitted by the stable six-panel grid six-panel grid mean that Grennan is interested in getting the most out of any given page.

The concept of the standing reserve is that it is there ready to be used, not necessarily in use at any given moment. In this case, the exploitation of the grid requires a kind of contract between the creator and the audience: this book will work better for you if you can decipher the rules of its enframing so that you can extract the reserve, like ore in a mine or oil in tar sands. Again, this raises the question of the grid as formal aesthetic device versus a condition of seeing, an indifferent technology of presentation or orientation. This is the sticking point of our theory of the grid. We are unsure as to whether comics are one more example of technological enframing or an aesthetic mimicking of that enframing. But we think the answer is both, and that the attempt to make a clean distinction would be like the futile efforts to distinguish poetic language from 'ordinary' language. In particular, the problem of intentionality rears its ugly head: when is a grid just a grid and when is it an orchestration of narrative drawing as claimed by Grennan's rules for *Dispossession*.

Richard McGuire's *Here* (2014) employs comics enframing to reveal time and history as a standing reserve. Unlike Grennan who uses a six-panel grid as a structure whose simplicity allows him to explore relatively complex rules, McGuire uses the constant image of the corner of a room in a house as the repeating organizational motif (with some exceptions when times that pre-exist the house are depicted). The binding of the book serves as the vertical line of the corner so that when the book is open, everything on the double page spread seems to emerge from it. Laid over this image are frames that depict events or situations that occurred in that space from across centuries. The effect is not that of sequence but of using frames to 'look through' the page into the past and, occasionally, the future (**Figure 6**).

Figure 6: Two-page spread from Richard McGuire's *Here*. McGuire, R. (2014). *Here*. New York: Pantheon. © 2014.

More often than not the various frames on any given page relate to each other. For example, superimposed on a background page set in 500,000 BCE, three frames depict a different person who has lost something: a wallet, an umbrella, someone's mind. McGuire's use of the grid subjects memory and history to a reframing of the *Gestell* that emphasizes extraction; the superimposition of panels 'mines' the scene for past moments, and this mining becomes the narrative. *Here* correlates these disparate moments to create both juxtaposition and continuity. And, although the book obviously uses synecdoche, the images invoke the whole of time regarding that space. The manifestation of the *Gestell* in any comic can confound linear sequence and the chronology that goes with it. It makes possible what Groensteen calls 'braiding' (Groensteen 2016), the way that non-sequential panels in different places of the comic evoke each other. In *Here*, braiding occurs through superimposition, as all times are available at once. We do not have to work our way forward from 500,000 BCE because all times are always already there, at least conceptually.

The narrative of *Here* is framed by a woman in 1957 coming into the room forgetting what she had come in for. At the end she remembers that she was looking for a book—perhaps the book we are reading that refers to so many things that a person living in this house might have forgotten or never knew in the first place. And the *Gestell* as a means of holding up, holding together, and making visible, enables this revelation. Both McGuire's radical reconfiguration of the grid or Grennan and Jason's maximization of the six-panel grid allow us to see how it reveals the surplus of reading in comics, whatever is beyond the linear sequence that we might expect from a work of prose. Or is it whatever counts for reading plus all the possibilities that come from looking. The grid creates the potentiality of looking, as standing reserve, in whatever in the comic is 'unreadable'.

The standing reserve of comics untracks reading to challenge forth other aesthetic possibilities. Indeed, we are inclined to agree with Aarnoud Rommens that the grid 'transcends the very notion of standing reserve to refer to what goes beyond use value/exchange value, i.e., the aesthetic in its traditional Kantian sense as that which affords us enjoyment without purpose, a moment not expected but freely given rather than something we can extract as if we were mining for ore' (Rommens 2018).

Radical Digitisation?

In spite of efforts by Scott McCloud, with his 'infinite canvas' (2000, 2009) and Daniel Merlin Goodbrey's 'New Experiments in Fiction' (Goodbrey n.d.) and platforms like Electricomics and Madefire that have enhancements that attempt to take comics beyond the grid, the grid somehow persists in digital comics, whether they be webcomics or comics presented through Comixology or Sequential. We argue that this persistence is not because of an inherent conservatism or unwillingness to experiment but rather because the grid's enframing is such a powerful generative technology. Draw the grid and the rest will follow. While the physicality and materiality of the paper may have brought the grid into being in the first place, its staying power seems to have to do with a conceptualization of space that can transfer to any platform, medium, or context. The grid is not so much a tool as a meta-tool that allows other tools, materials, and means to come into play.

The multiframe rectangle is the human shape extraordinaire for organizing and interpreting the world. Rectangular enframing dominates our spatial organization and perception. It is our defense against chaos, disorder, untenable openness. Squalidozzi the Argentine gaucho in Pynchon's *Gravity's Rainbow* (1973; 2000) expresses perfectly the back and forth movement between openness and enframing in the human psyche:

> In the days of the gauchos, my country was a blank piece of paper. The pampas stretched as far as men could imagine, inexhaustible, fenceless. … But Buenos Aires sought hegemony over the provinces. … Fences went up, and the gaucho became less free. It is our national tragedy. We are obsessed with building labyrinths, where before there was open plain and sky. To draw ever more complex patterns on the blank sheet. We cannot abide that openness: it is terror to us. Look at Borges. Look at the suburbs of Buenos Aires. (Pynchon 2000: 267–268)

Squalidozzi's complaint refers to the relationship between smooth and striated space in Deleuze and Guattari's *A Thousand Plateaus* (1980; 1987), a relationship that is worth thinking about when we interpret comics. There is perhaps a dream of the nomad moving freely over smooth space in the promise of digital comics: a desire to avoid capture by the striated space of the grid. But the comics grid is the perfect demonstration of the interdependence of territorialization and deterritorialization, of smooth and striated space.

Most of the screens that dominate our information-filled lives are rectangular, as are the 'windows' within them. Consequently, the movement from the rectangular grid to the rectangular screen is not such a radical one. It is no surprise, then, that the promise of the digital comic's 'infinite canvas' is quickly boxed up again to become finite. Indeed, this move from an unframed infinite to an enframed finite is perhaps the most significant gesture of the *Gestell*. The purpose of the grid is to manage a potentially overwhelming sublime space. Revealing requires limiting, organizing, constraining the infinite with an illusion of finitude.

Conclusions: The Grid as Enframing

If technology in its relation to *poiesis* and revealing is something of an evil twin copy of art, what if comics were an imitation of technology, a way for art to recapture the *poiesis* that technology 'steals' from it? Comics would then be a re-staging of technological enframing that makes it possible to imagine controlling the system from a god-like perspective rather than being a pawn within the system. Comics provide us an illusion of mastery just at the point where we are being mastered by technology. Whether the digitisation of comics and their apprehension through a computer or tablet affect this illusion in a meaningful way depends upon whether their relationship to enframing reinforces or challenges the grid. So far, in our estimation, the former is the case.

Funnily enough, we can turn to abstract comics to see the real power of the grid's enframing. Allan Haverholm's *When the Last Story is Told* (2015) uses a uniform six-panel grid on every page of the book (**Figure 7**). In this case, the grid establishes the visual unity of the page. It tells us that each of the images on the page belong

Figure 7: A page from Allan Haverholm's *When the Last Story is Told.* Haverholm, A. (2015). *When the Last Story is Told.* Malmo: C'est Bon Kultur. © 2015.

together, are thematically linked. When we scan the page, we see the simultaneity of multiple images on a singular theme. It is like looking at Andy Warhol's screen prints of Marilyn Monroe stacked together. The book itself forms a compilation of these themes, with the grid being the unifying factor: multiplicity and unity in the same space. Knitting together is the effect of the regular grid. The grid is the articulation of panels.

And this is the most fascinating thing about it: the grid's stasis and rigidity convey movement and energy. This paradoxical feature of the grid is what aligns it so clearly with Heidegger's concept of the *Gestell*. Enframing holds resources in such a way that they are ready to be brought into action. Enframing is potential energy right on the verge of becoming kinetic. We argue that the purpose of the grid is to manage, dynamically, a potentially overwhelming sublime space. If enframing continues to take place well beyond the printed page, traditional comic scholarship approaches will need to continue adapting their focus to what new technologies reveal about comics. The 'page' is getting continuously redefined by screen-based media. Enframing in comics subsists even when the whole grid is not completely visible, as it happens in both comics reading with Guided View *and* in map reading with GPS, where the whole page/map is present even if only a segment of it is visible at a given time.

In this context, fields concerned with screen-based media interactions, such as Human-Computer Interaction Design, should be expected to continue making important contributions to our understanding of comics through methods of visual analysis where technology (such as eye-tracking) are used for evaluating how people interact with media. Understanding comics as a type of information architecture, with the grid as a particular type of interface design, can potentially provide different types of explanations of its effectiveness as a means to display and manage otherwise overwhelming volumes and types of information (see for example Kammerer and Gerjets 2010; Bach et al 2018; Tabassum et al 2018). However, though these approaches are highly valuable, and in spite of the considerable technological transformations since Heidegger's time, we also contend that the theoretical understanding of the grid and

Gestell we have presented in this article would embrace an experience of enframing that also goes well beyond the physical, rectangular constraints of the screen, mobile devices and digital *platforms* as we currently know them.

We have proposed that the grid, as enframing, reveals the ways, the manner in which the world *matters to us*, in which it includes us and manifests itself through its interconnecting patterns. Enframing enables interpretations and reveals situations. It is less a machine with an innumerable set of moving parts than a holding tank of energy that could be set in motion at any time. This is, of course, only one possible piece in a larger puzzle. In order to avoid technological determinism or overtly abstract critique, we would like to finally suggest that only a diverse, critical, multidisciplinary, multimodal collective scholarship, blending and contrasting different methodologies and tools, can hope to offer more insightful revelations about the complexity of comics in the future.

Competing Interests

The authors have no competing interests to declare.

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been fully attributed and have been included in this article as scholarly references for educational purposes under Educational Fair Use/Dealing only.

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