

Doesn't Writing Have a Future?
A Marvel-ous Journey Into (And Out Of) The "Universe Of Technical Images"

It is by now a commonplace that the advent of digital technologies has had sent shock waves rippling through the field of semiotics; that today's new media not only demand new creative and interpretive practices, but also destabilize more familiar modes of meaning-making in the process. What remains less clear, however, is the precise nature of this destabilization, leading to the proliferation of claims such as N. Katherine Hayles' declaration, in *How We Became Posthuman*, that

Information technologies do more than change modes of text production, storage, and dissemination. They fundamentally alter the relation of signifier to signified. Carrying the instabilities implicit in Lacanian floating signifiers one step further, information technologies create what I call flickering signifiers, characterized by their tendency toward unexpected metamorphoses, attenuations, and dispersions. Flickering signifiers signal an important shift in the plate tectonics of language. (Hayles 1999: 29-30)

While Hayles thus (somewhat dubiously) avers that the arrival of "information technologies" – as she refers to digital media – has wrought a profound "shift" in the deep structure of language itself, Czech-born philosopher and media theorist Vilém Flusser takes a radically different view of the situation, arguing that the emergence of what he calls "technical images" – a development that he claims began with the invention of the camera, but that has the logic of the computer at its heart (Flusser 2000: 31) – inaugurates a new stage in a dialectical confrontation between words and images that began before history, and, with this most recent development, has now laid history in its grave.

Thus, Flusser begins *Does Writing Have a Future?* – a volume first published roughly a decade before *How We Became Posthuman* – with the blunt declaration that, as far as he can see, it does not. "Writing, in the sense of placing letters and other marks one after another, appears to have little or no future," (3) he announces. "Information is now more effectively transmitted by

codes other than those of written signs. What was once written can now be conveyed more effectively on tapes, records, films, videotapes, videodisks, or computer disks, and a great deal that could not be written until now can be noted in these new codes ... It really looks as though written codes will be set aside.” Flusser’s media theory is undeniably dense, and is only recently beginning to receive sustained critical attention in the American academy (as English-language translations of essential parts of his body of work have only recently begun to appear) – but, as Francesco Casetti claims, it was “written ahead of its time, and in a somewhat prophetic tone, it is proving to be consistent with what is currently happening” (171). In a gesture that Flusser would surely appreciate, it is my contention that the relative obscurity of his claims calls for an illustration to illuminate them; at the same time, however, I also contend (*contra* Flusser) that such an illustration can function to open up a vital critique of his thinking of media, by challenging the fundamental distinction that he draws between images and texts – thereby requiring an expansion of his definition of writing that restores the ostensibly-moribund practice to health while refiguring its visage. Thus, we shall now plunge into the Marvel Cinematic Universe of Technical Images, in search of a hero (or a human being) able to rescue writing, in the form of what I shall call the “textual image,” from the fate that appears to await it there.

Before undertaking such an exploration, however, it is first necessary to establish what Flusser means by “technical images.” In the “Lexicon of Basic Concepts” found at the end of his *Towards a Philosophy of Photography*, Flusser offers a deceptively simple definition: “*Technical Image*: a technological or mechanical image created by apparatus” (85). Turning to his definitions of “apparatus” (“a plaything or game that simulates thought [*trans*. An overarching term for a non-human agency, e.g. the camera, the computer and the ‘apparatus’ of the State or

of the market]; organization or system that enables something to function” [83]) and “image” (“a significant surface on which the elements of the image act in a magic fashion toward one another”), however, one quickly realizes that both of these terms require further explication before the concept of the technical image can be grasped.

One can find a satisfactory *précis* of Flusser’s understanding of apparatuses in Anke Finger, Ranier Guldin, and Gustao Bernardo’s *Vilem Flusser: An Introduction* – the only book on Flusser’s works published in English prior to the writing of this essay. Its authors follow Flusser’s lead in treating “the camera ... as a prototype of the apparatuses that have become so decisive for the present and immediate future” (Flusser 2000: 21), explaining that

the photographic camera can be seen as an apparatus, a black box within which a series of transformations takes place. The apparatus can also be seen as a complex toy simulating thought. Its complexity is so high that the person playing with it cannot fully understand it. This is one of its salient characteristics. Some fully automated apparatuses work on their own – some computers, for instance – whereas others require human intervention. The human appendage of the apparatus, the player or functionary, can control its function by regulating the input and the output, but he cannot change its programs. Functionaries can function according to the rules of the apparatus. People working in concentration camps or within an inscrutable labyrinthine, Kafkaesque administration complex are examples of this basically dehumanizing side of apparatuses. They give their freedom and responsibility over to the system. But one can also work against the apparatus by trying to bend and alter its program to attain new results. This is the case of the photographer who plays with the camera to create unexpected, surprising pictures. (Finger, Guldin, and Bernardo 101-102)

To navigate the complexity that persists even in this summary, it is helpful to consider apparatuses as the successors to machines (which themselves succeeded tools), and therefore another stage in the development of humanity’s relationship to its interfaces with the world. As Flusser explains: “Tools in the usual sense tear objects from the natural world in order to bring them to the place (produce them) where the human being is. In this process they change the form of these objects: They imprint a new, intentional form onto them. They ‘inform’ them ... This production and information of natural objects is called ‘work’ and its result is called ‘a work’” (2000: 23). The Industrial Revolution, however, marked the displacement of tools by machines,

as “tools were no longer limited to empirical situations; they grasped hold of scientific theories: They became ‘technical.’” With this transformation, “their relationship to human beings was reversed. Prior to the Industrial Revolution the human being was surrounded by tools, afterwards the machine was surrounded by human beings” (23-24), Flusser claims. “Previously the tool was the variable and the human being the constant, subsequently the human being became the variable and the machine the constant. Previously the tool functioned as a function of the human being, subsequently the human being as a function of the machine” (24). With the apparatus, this relationship is reconfigured once again: “Unlike manual workers surrounded by their tools and industrial workers standing at their machines, photographers are inside their apparatus and bound up with it. This is a new kind of function in which human beings are neither the constant nor the variable but in which human beings and apparatus merge into a unity” (27), bringing about a “robotization of work” (29) that carries with it the “liberation of human beings for play.” It is at this point that Flusser’s thinking of the apparatus most clearly intersects with his understanding of the image.

If, as Flusser would have it, “the basic category of industrial society is work: tools and machines work by tearing objects from the natural world and informing them, i.e. changing the world” (25), one must conclude that “apparatuses do not work in that sense. Their intention is not to change the world but to change the meaning of the world. Their intention is symbolic.” Thus, apparatuses (and their functionaries) “create, process and store symbols,” and while “there have always been people who have done such things: writers, painters, composers, book-keepers, managers ... [c]urrently this sort of activity is being taken over by apparatuses.” For Flusser, however, not all symbols are created equal; indeed, he opens his volume by explaining that the

thought it contains “is based on the hypothesis that two fundamental turning points can be observed in human culture since its inception. The first, around the middle of the second millennium BC, can be summed up under the heading ‘the invention of linear writing’; the second, the one we are currently experiencing, could be called ‘the invention of technical images’” (7). Initially, Flusser explains, images function as “significant surfaces ... [that] signify – mainly – something ‘out there’ in space and time that they have to make comprehensible to us as abstractions (as reductions of the four dimensions of space and time to the two surface dimensions)” (8). Insofar as the image abstracts away the temporal dimensions of an event, however, it cannot conceptualize causality; thus “the space and time peculiar to the image is none other than the world of magic, a world in which everything is repeated and in which everything participates in a significant context. Such a world is fundamentally different from that of the linear world of history in which nothing is repeated and everything has causes and will have consequences” (9). In Flusser’s account, this “linear world of history” comes into being only with the advent of writing.

Writing, Flusser argues, was invented in response to a crisis: While images are meant to serve as “mediations between the world and human beings ... [because] the world is not immediately accessible to them and therefore images are needed to make it comprehensible,” after a time “human beings cease to decode the images and instead project them, still encoded, into the world ‘out there,’ which meanwhile becomes itself like an image – a context of scenes, of states of things ... Human beings forget they created images in order to orientate themselves in the world. Since they are no longer able to decode them, their lives become a function of their own images” (10). At the point “when the alienation of human beings from their images reached

critical proportions,” Flusser contends, “some people ... attempted to tear down the screens showing the image in order to clear a path to the world behind it. Their method was to tear the elements of the image (pixels) from the surface and arrange them into lines: they invented linear writing. They thus transcoded the circular time of magic into the linear time of history.” For Flusser, writing thus consists of making images more abstract, in order to render them more comprehensible:

With writing, a new ability was born called ‘conceptual thinking’ which consisted of abstracting lines from surfaces, i.e. producing and decoding them. Conceptual thought is more abstract than imaginative thought as all dimensions are abstracted from phenomena – with the exception of straight lines. Thus with the invention of writing, human beings took one step further back from the world. Texts do not signify the world; they signify the images they tear up. Hence, to decode texts means to discover the images signified by them. The intention of texts is to explain images, while that of concepts is to make ideas comprehensible. In this way, texts are a metacode of images. (11)

If texts exist to recode the ideas found in images into concepts that can only be elucidated analytically, however, “images also illustrate texts in order to make them comprehensible”; furthermore, “if it is the intention of writing to mediate between human beings and their images, it can also obscure images instead of representing them ... If this happens, human beings become unable to decode their texts and reconstruct the images signified in them. If the texts become incomprehensible as images, however, human beings’ lives become a function of their texts” (12). When this happens, as Flusser contends that it did right around the time of the invention of photography, the historical mode of consciousness inaugurated by linear writing ceases to function.

Thus, one enters “the universe of technical images” (20) only at the end of history. While “history, in the precise meaning of the word, is a progressive transcoding of images into concepts, a progressive elucidation of ideas, a progressive disenchantment ... a progressive process of comprehension. If texts become incomprehensible, however, there is nothing left to

explain, and history has come to an end,” technical images “are metacodes of texts which ... signify texts, not the world out there. The imagination that produces them involves the ability to transcode concepts from texts into images; when we observe them, we see concepts – encoded in a new way – of the world out there” (15), and thus “were invented: in order to make texts comprehensible again, to put them under a magic spell – to overcome the crisis of history” (12). We can thus trace a genealogy of sorts: From the world, mankind abstracted ideas in the form of images; from images, mankind further abstracted linear writing, which allowed for the explication of images by way of concepts; once these concepts become too obscure to be comprehended, the apparatuses of culture begin to produce “technical images,” or images *of* concepts, in order to re-orient human beings in a world governed by operations that are no longer entirely under our control, and that function with a complexity that radically exceeds our capacity for understanding.

The advent of technical images is not, however, an altogether positive development. For one thing, they *appear* – but *only* appear – to make reading obsolete. It seems, Flusser argues, that “they do not have to be decoded since their significance is automatically reflected on their surface ... [as t]he world apparently signified in the case of technical images appears to be their cause and they themselves ... the final link in a causal chain that connects them without interruption to their significance” (14) – a characterization that cannot help but bring to mind Roland Barthes’ contention, in *Camera Lucida*, that “a photograph cannot be transformed (spoken) philosophically, it is wholly ballasted by the contingency of which it is the weightless, transparent envelope ... a specific photograph, in effect, is never distinguished from its referent” (5), but is rather “literally an emanation of the referent” (80). Flusser, however, is adamant that

while a technical image appears to be a direct impression of the world, “the process [by which it is created] – what is going on within the complex [apparatus] – remains concealed: a ‘black box’ in fact. The encoding of technical images, however, is what is going on in the interior of this black box and consequently any criticism of technical images must be aimed at an elucidation of its inner workings” (16). As such, “the function of technical images is to liberate their receivers by magic from the necessity of thinking conceptually, at the same time replacing historical consciousness with a second-order magical consciousness and replacing the ability to think conceptually with a second-order imagination. This is what we mean when we say that technical images displace texts” (17). The consequence of this process is that “technical images absorb the whole of history and form a collective memory going endlessly round in circles” (19-20) as they “grind ... [culture] up into amorphous masses. Mass culture is the result” (19). If technical images are images of concepts produced by an apparatus “that simulates thought” (83), and “in all apparatuses (including the camera), thinking in numbers overrides linear, historical thinking” (31) insofar as “the camera (like all apparatuses that followed it) is computational thinking flowing into hardware,” then the technical image is nothing other than the replacement of signifying practices on the human scale with the computer’s processing of the world of experience into information, through a process of infinite recombination that is fundamentally inhuman – or, one might say instead, super-human.

For a series of properties that often seems to have taken over Hollywood production entirely, the so-called Marvel Cinematic Universe has received almost no seriously scholarly attention – perhaps because it is a quintessential product of precisely the sort of “mass culture” that Flusser insists technical images bring into being. This is unfortunate, because a moment’s

thought makes clear that the interconnecting films that constitute the Marvel Cinematic Universe [MCU] largely function exactly as technical images are supposed to – and furthermore, that the primary concept they illustrate is nothing other than that of “the universe of technical images” itself. Indeed, the superheroes around which these films are built are nothing if not images of the concept of technical images, both representing in their very essence the technical image’s transcending of human faculties, and insofar as their own ability to be represented within the films in which they appear is a direct function of the development and dissemination of digital imaging technology. What one sees when witnessing the vast majority of the heroic (and villainous) acts of these characters and their nemeses is a technical image *par excellence* – a photorealistic (but profoundly artificial) eruption of the computational manipulation of symbols that makes a mockery of the concept of historical causality, and furnishing instead a vision of a world where mythical, magical agents provide deceptively-tidy explanations for (and solutions to) problems arising from the incomprehensibly-complex operations of the apparatuses that govern our lives. Furthermore, the networking of the individual films as sites of signification into a “Cinematic Universe” in which they are bound into a whole by way of a series of links of greater or lesser obviousness makes the MCU an image of the structure of the internet (itself a realization of the concept of a “universe of technical images”). Restricting our scope, for the time being, to the characters that make up “Phase One” of the products set in this world – that is, the cluster of films spanning from *Iron Man* (2008) to *Marvel’s The Avengers* (2012) – still more parallels emerge: *Iron Man* tells a story of a human being’s progressive interdigitation with the technical apparatus as a consequence of the obscure workings of the military-industrial complex; *The Incredible Hulk* (2008) imagines the operation of the unconscious as a man transforming

into a computer-generated beast in front of our very eyes (and furthermore, the fact that Mark Ruffalo took over the role of Bruce Banner from Edward Norton echoes Flusser's claims about the human becoming variable relative to the machine, while the fact that this substitution of one actor for another had only a negligible impact on the presentation of the film's true protagonist, the computer-generated Hulk, likewise literalizes his claims about man moving inside the apparatus to form a new sort of unity); with the introduction of *Thor* (2011) into the MCU, myth and the magical temporality that attends it make their appearance on the surface of the MCU's meta-text; *Captain America: The First Avenger* (2011) re-imagines World War II, arguably the critical historical nexus of the twentieth century, as a battle between an American *ubermensch* and a faceless Nazi who controls weapons powered by an energy source from a divine realm located in outer space – an appropriation of the concept of history that produces a depiction of history that amounts to its own conceptual negation; finally, the appearance of all of these characters in *Marvel's The Avengers* (2012) realizes just the sort of quasi-random yet exhaustive recombination of elements that characterizes the computational ontology of the “universe of technical images” analyzed by Flusser.

The extent to which these films can be understood as both partaking of and figuring Flusser's “universe of technical images” can be clearly seen in a pair of shot from *Marvel's The Avengers* – two moments in the film that are both almost as fleeting as they are breathtaking in their audacity. Both shots appears during the film's climactic battle, which takes place as its titular heroes gather in Manhattan to defeat Loki, Thor's brother, who has installed the aforementioned intergalactic energy source (known as “the tesseract”) atop a new skyscraper bearing the surname of Tony Stark (Iron Man's alter ego). Using the tesseract's power, Loki

opens an intergalactic portal, through which stream the Chitauri, the alien army that has agreed to help him conquer the planet on the condition that he hand over the tesseract after the conquest is complete. As J. Hoberman writes in an essay for the *Guardian*, through a sequence that dwells on images of Chitauri of various sizes wreaking havoc on the streets of New York City, crashing through skyscrapers, raining fire and rubble on passers-by, and sending first responders scrambling, “*The Avengers* ... recasts 9/11 in the Bush years' dominant movie mode, namely the comic book superhero spectacular ... Bombs away: *The Avengers* is 9/11 as you've never seen it!” (Hoberman 2012). It is in this context that the viewer of the film encounters the shots under discussion. The first – a long shot of Tony Stark plummeting headlong from the window of a high-rise to what appears to be his certain death, only to be saved by an Iron Man suit that propels itself out the window after him, chasing him down the side of the building before swaddling him in protective and gravity-defying armor mere moments before he hits the sidewalk – clearly evokes the famous “falling man” photograph of a human figured silhouetted against the side of the side of the World Trade Center, only to replace its quiet, wrenching sadness with a hollow fantasy of hyper-technical rescue; the second, which looks out the window of an office high above the city to show the Chitauri equivalent of an airplane approaching – a vision that one can only assume strongly resembles the view from within the Twin Towers on September 11th, as anyone who could have seen such an image could not have lived to tell the tale – but then turning aside, sending glass flying as its sides cut through the bank of windows around which the shot is focused, but sparing the building and those inside the horror of a direct impact. Both shots thus mobilize existing images of the concept of the devastation of an American metropolis to reinforce a rewriting of history; in the “universe of technical images”

figures for the concepts of justice, goodness, and technical ingenuity transform quintessential scenes from 9/11 – an event bound up in the apparatuses of American imperialism, religious fundamentalism, and a certain kind of human precariousness in the face of the machinery of death – into the grounds for simple, triumphalist fantasies of magical solutions decoupled from the historical reality out of which they have been drawn.

Crucially, however, none of the resonances between the Marvel Cinematic Universe and the “universe of technical images” detailed above reflect any *thought* about the latter on the part of the former, nor could they; the MCU functions as a technical image of the “universe of technical images,” and as such, by Flusser’s logic, can only *depict* concepts, while lacking the linearity necessary to perform any (further) analysis thereof. If, however, the films of “Phase One” of the MCU thus illustrate (and are illuminated by) Flusser’s thinking of the technical image, James Mangold’s *Logan* – which is based on another Marvel property, the X-Men, but is not itself part of the MCU proper – suggests that Flusser’s claim that technical images will “displace” writing errs in characterizing the relationship between writing and the image as one of dialectical opposition, a framing that fails to provide an adequate account of cinema and, or as, the image in motion.

We must therefore take another theoretical detour before turning our attention to *Logan*. In his discussions of the technical image, Flusser stubbornly insists on largely eliding the differences between photography, film, and video.¹ Thus, in *Towards a Philosophy of*

¹ For all of the objections one might raise to Barthes’ *Camera Lucida*, one must credit the way its author takes pains to differentiate between the static image and the image in motion. Indeed, Barthes is adamant that “the Photograph’s *noeme* deteriorates when this Photograph is animated and becomes cinema: in the Photograph, something *posed* in front of the tiny hole and has remained there forever (that is my feeling); but in cinema, something *has passed* in front of this same tiny hole: the pose is swept away and denied by the continuous series of images: it is a different phenomenology, and therefore a different art which begins here, though derived from the first one” (78) – and that

Photography he declares that “all events nowadays are aimed at the television screen, the cinema screen, the photograph, in order to be translated into a state of things” (2000: 20); while in his essay “The Gesture of Filming” he argues that “despite the differences, the manipulation of the film camera is just the photographic gesture in service of the filmic gesture, which has changed only inasmuch as it is serving something else” (2014: 88). Elsewhere in this essay, Flusser begins to gesture in the direction of the critical differences between photography and cinematography, identifying “the essential thing about the filmic gesture” (87) as its being “the gesture that makes strips that are intended to represent historical time,” and declaring that “the actual filmic gesture ... [is] the gesture of cutting and pasting.” On the basis of these claims, Flusser contends that cinema does something unique, arguing that

it is a question about the difference between linear and two-dimensional codes. Linear codes are read, meaning that their meaning is grasped. Surface codes, by contrast, are deciphered with the imagination. Traditional surfaces, including photography, are motionless, ‘anecdotal,’ and in this sense prehistoric. Linear codes consist of particle-like elements, for example, letters or numbers. They analyze events through a process and are therefore historical. The film is the first code in which surfaces move, a discourse of photographs, not of numbers. Because it ‘happens,’ it is as historical as numbers are, and because it consists of surfaces, it is as imaginative, as prehistoric, as traditional surfaces are. (90)

While this passage seems to suggest that films do something distinct from typical “technical images,” the careful reader will notice that Flusser has performed a bit of sleight-of-hand; suddenly, the photograph, which in *Toward a Philosophy of Photography* is identified as both the inaugural and the quintessential “technical image,” finds itself on the other side of the divide, lumped together with “traditional surfaces.”

“in the cinema, whose raw material is photographic ... the photograph, taken in flux, is impelled, ceaselessly drawn toward other views; in the cinema, no doubt, there is always a photographic referent, but this referent shifts, it does not make a claim in favor of its reality, it does not protest its former existence; it does not cling to me: it is not a *specter*” (89).

Furthermore, while the lines quoted above lead Flusser to declare that alongside filmic images “a new kind of deciphering arises” his account of this new development is functionally identical to the account of the photograph-as-exemplar-of-the-technical-image that he gives elsewhere: “The images of a film . . . mean concepts that mean scenes. What a film depicts is not, as in the case of a traditional image, a phenomenon. Rather, it depicts a theory, an ideology, a thesis that means phenomena. So film does not give an account of events but imagines events and makes them imaginable: it makes history, if always three steps removed from the concrete phenomena.” Thus, while Flusser’s most sustained engagement with film recognizes that the medium’s linearity implies a certain kind of historical engagement, which he generally insists is the exclusive province of writing, insofar as maintains that technical images are images of texts, and texts are the vectors of “historical consciousness,” his conclusion that film “imagines events . . . [and] makes history, if always three steps removed from the concrete phenomena” ultimately folds his recognition of the linearity of cinema back into a more-or-less undifferentiated thinking of the technical image in general.

Flusser likewise remarks on the potential linearity of the image in “The Gesture of Video.” Echoing his claim in “The Gesture of Filming” that “four-dimensional scenes are visually reduced to three dimensions on the screen (the two of the tape and the third of the rolling film)” (87), Flusser writes that “Videotape . . . stores scenes on a linear surface. So it has three dimensions: the two of the surface and dimension of the rolling tape. It reduces four-dimensional space-time to three dimensions” (143). Furthermore, Flusser acknowledges an analogy between the tape and writing, claiming that “the tape is a linear code like the alphabet. To receive its message, one must follow its line. But with tape, the line rolls along, and with the

alphabet, it doesn't move at all. Reading a tape is more passive than reading the alphabet, where eyes move. Because the tape is not one-dimensional, but three-dimensional, reading it is more complex than reading the alphabet." This time, however, Flusser does not re-absorb video entirely into the "universe of technical images." Once again echoing the rhetoric of "The Gesture of Filming," he claims that "the raw material of video makes history in the strict sense: a sequence of scenes. Not only does it happen in history but it also affects history. In this sense, it is a posthistorical gesture. It aims not only to commemorate the event (a historical engagement), but also to compose alternative events (a posthistorical engagement)" (145). While the sections of this passage devoted to video as "a posthistorical gesture" and "a posthistorical engagement" cannot but call to mind the discussion of *Marvel's The Avengers'* treatment of September 11th, the rest of the passage sees Flusser recognizing that the linearity of video, like the linearity of film, enables it to function as "a historical engagement." Nonetheless, this recognition is not sufficient to cause him to revisit his sweeping claims about technical images, or the general dialectical opposition between word and image that serves as their foundation – a dialectic that, it is worth reminding ourselves, synthesizes representations of phenomena (images) and explications of representations (words) produced by literally analyzing these representations and re-arranging the constituent elements that result from a simultaneous circularity into a historical linearity, in order to arrive at representations of explications of representations (technical images); in other words, a dialectic in which writing becomes the object of representation for technical images, but is otherwise displaced as these images fall squarely on the image side of the line Flusser draws between images and writing.

It is perhaps predictable, then, that Friedrich Kittler has criticized the way that “media theorists, specifically Marshall McLuhan and, succeeding him, Vilem Flusser, draw an absolute distinction between writing and the image that rests on concepts of geometry” (39), noting that “though the lines of a book have looked linear since Gutenberg, the page of a book has been two-dimensional since the Scholasticism of the twelfth century at the latest. Each paragraph and section, footnote and title plays across a surface whose two-dimensionality is no different than that of an image.” While Kittler’s latter point is undeniably correct, it nonetheless elides the crucial difference in the temporalities of their perception that, far more than differences in “geometry,” forms the basis on which Flusser’s distinction between words and images is drawn. Kittler provides a more interesting corrective to Flusser later in his essay, albeit in a way that seems almost accidental.

In the process of further developing his misguided rebuttal to Flusser on the basis of print’s image-like multidimensionality, Kittler argues that “Gutenberg’s press required a geometry of surface” (40); he follows this assertion, however, by contending that “writing in the age of its technological reproducibility is a combinatorial system of discreet elements or characters, just as it was already a combinatorial system of discreet elements or letters since the early Greek vowel alphabet ... [and] the elements exist only in groups, which is to say, in code systems.” It is precisely this point that Tim Ingold uses to differentiate between writing and drawing, the word as word and the word as image, in *Lines: A Brief History*. In order to separate these categories, Ingold argues,

we ought to make a clear distinction between a *notation* and a *script*. Drawing the letters of the alphabet, recognizing their shapes and learning to tell them apart are exercises in notation. Spelling, however, is an exercise in script. It is a matter of being able to combine the elements of a notation in ways that make sense in the terms of a specific system (and clearly the same elements may be put to use in any number of different systems). *Within the texts of that system*, elements

such as letters can then take on a value as written signs (Harris 2000: 91). As such, they belong to a script. (121-122)

Although Ingold, like Kittler, makes this claim in order to support the contention that “writing is still drawing” (122) and written words are therefore also images – thus again attempting to break down the word-image binary on spatial grounds that differ fundamentally from the differences in the temporality of perception on which Flusser’s distinction is most meaningfully drawn – both arguments nonetheless indicate the conceptual movement necessary to expand Flusser’s definition of writing to encompass certain kinds of images *on Flusser’s own terms*.

Returning to *Does Writing Have a Future?*, one finds that in its pages Flusser differentiates texts from images not only on the basis of the fact that writing’s linearity enables a sort of conceptual-historical thinking that, as we have seen, Flusser himself also sees as a potentiality of time-based visual media like video and film, but also because writing, insofar as it is composed by the additive aggregation of letters, is “a process, wavelike, linear” (26) and calls for a comparable mode of thought, for “as the score of a spoken language, the alphabet permits us to stabilize and discipline a transcendence of images that has been won, with effort, through speech” (31). Thus, Flusser continues

the alphabet ... orders and regulates that which is meant by language: thinking. And so for those who are able to write, spoken language becomes more than a medium through which they can express themselves ... language is rather the material which they press against the alphabet, against which they literally ex-press. In short, they work on the language. Only at the point when language ceases to be a means (a medium) and begins to be a purpose does the essence of alphabetic writing come into view. A writer forces the spoken language to accommodate itself to orthographic rules. (33)

This leads Flusser to argue that the invention of print is nothing more than a recognition of the essential character of alphabetic writing: the way that it translates the world of phenomena by passing it through the sieve of a limited set of elements. “Gutenberg didn’t really invent anything: printing would have been possible by the middle of the second millennium B.C. in this

sense” (48), he declares. “But there was as yet no printing because no one was yet aware that by drawing letters, one was dealing with types. Written signs were taken to be characters. ‘Type-identifying’ thought had not yet pressed itself into consciousness. Gutenberg’s great deed was the discovery of the types inherent in alphanumeric script.” Although his argument is not directly addressed to Flusser, Ingold nonetheless offers an important corrective to his thinking on this point, arguing that words, rather than letters, constitute the fundamental type-forms of written language, observing that “we often say that a picture is worth a thousand words. But it is for the words that the picture is exchanged, not for the letters in which it is [sic] written. To confuse the two is, once again, to confuse the script with the notation” (122) – an apparent quibble that will take on added significance shortly.² For the moment, the salient point is simply that if Flusser understands “the essence of alphabetic writing” to consist of its putting pressure on thought by forcing thought to process itself through a pre-existing set of “types,” it would seem that even images set into motion, and thereby imbued with writing’s linear-historical temporality, would nonetheless fail to qualify as a form of writing, as no finite set of elements comparable to an alphabet (or, following Ingold, a lexicon) can be defined for the pictorial realm.

Flusser says as much himself, in his discussion of poetry later in the same volume. Noting that “a distinction is usually drawn between poetry and mimicry (poesis and mimesis)” (71), Flusser acknowledges that “the preceding reflections imply that poetry, as the opposite of imitation, will break new ground, in fact, ground that only opens with the introduction of

² One might reasonably assume that Flusser focuses on the letter, rather than the word, as the fundamental significant unit of writing so as to preclude the argument that words are themselves pictures representing phenomena or concepts, and that writing is thus itself either a traditional or a technical image. Insofar as the letters that comprise words that are not spelled phonetically cannot be understood as “signs for spoken sounds” (Flusser 2011: 24) – as Flusser insists that letters are, which in turn enables him to insist that writing consists of a “convoluted detour through the spoken language instead of using signs for ideas, that is, ideograms” (30) – this dodge can only be understood as less than perfectly successful.

apparatuses and the codes that go with them. Images will detach themselves from their imitative, mimetic function and become inventive and poetic. This poetic power is already clearly visible in films, videos, and synthetic images.” He notes, however, that “under the sway of the alphabet ... poetry... is usually understood as a language game whose strategy it is to creatively enlarge the universe of languages ... through the manipulation of words and sentences, the modulation of linguistic functions, a game with the meanings of words and sentences, rhythmic and melodic modulations of phonemes,” and argues that while technical images may participate in poetry understood as invention *contra* imitation, “as for poetry, in the sense of a language game ... its route to the new culture appears to be blocked: for it is tied to alphabetic writing.” Flusser then tips his hat toward the idea that “there could also be nonalphabetic language games,” but dismisses the notion on the somewhat-feeble grounds that “to detach poetry as a language game from the alphabet and to transpose it to computing apparatuses assumes that there are people engaged in strengthening and honing the language. This is precisely what the previous chapter put into question” (72). As such, no matter how linear/historical the moving image may become, to the extent that lacks alphabetic writing’s ability to produce “poetry ... understood as a language game,” it must still be denied admission into the category of writing.

What *Logan* shows, however, is that the moving images of cinema *can also play this language game* – a feat that it accomplishes precisely by gesturing toward a finite set of elements that can function analogously to an alphabet – or more precisely (again, following Ingold), a lexicon – within the ostensibly-limitless set of signifying elements available to cinema. This set – which is vast, but nonetheless finite in all the ways requisite to participate in the logic of Flusser’s thought (particularly after one follows Ingold’s lead and concludes that the finite set

with which Flusser is truly concerned is not that of the alphabet, but that of a given language's lexicon) – consists of nothing other than the collection of all cinematic (and, to an extent, photographic) images extant at the time of a given film's production – or, one might say, exchanging one set of ambiguities for another, all *recognizable* cinematic (/photographic) images in the repository of the cultural imaginary which a film seeks to enter. In other words, films can participate in the language game of poetry *by quoting other films* – and, as Flusser tells us “in a ... very important sense, all written signs are quotation marks” (2011: 6). By filtering thought through the elements of the cinematic lexicon defined in this fashion, and also partaking of the linear-historical temporality of texts in the ways already discussed, the cinema can fulfill all of the essential elements of Flusser's definition of writing, even while remaining fundamentally visual-imagistic. Thus, one might say, extending Flusser's progression of image to text to technical image one step further, by writing with a lexicon comprised of technical images, time-based visual media have the capacity to produce what we might term “textual images” – images that create new concepts by analyzing and rearranging the representations of concepts found in technical images.

To see how such textual images might be created, one need look only to *Logan* sustained engagement with George Stevens' *Shane* (1953). *Logan*, like *Shane*, tells the story of the development of a violent man's quasi-paternal relationship with a child. While *Shane* centers around Shane's relationship with Joey, the young son of tenant farmers whose harassment by their town's equivalent of a big corporate farmer begins to diminish only after Shane decides to be their champion in this case, *Logan* focuses on its titular character's connection with a young girl named either Laura or X-23, depending on whether one is speaking to the people who love

her, or the people who grew her by implanting genetic material taken from an X-Man into the womb of a poor Mexican woman, in the hope that she might be marketed as a sentient killing machine. Upon discovering that Laura (and the other children produced in similar experiments) lack the seething rage necessary to function as (super-)human munitions, the company in charge of the program sets out to destroy what they see only as their malfunctioning products; following a complicated series of events, Logan (himself more commonly known as the X-Man Wolverine) finds himself attempting to smuggle Laura north, across the Canadian border, where she will ostensibly be able to enjoy a peaceful existence. Logan's investment in Laura's safety is twofold: In a world where mutants such as the X-Men have long ago ceased to appear, she represents a new generation of mutant; insofar as the X-Man whose DNA she shares is Logan himself, she also represents a new generation of a different sort. They are accompanied on this journey by Logan's surrogate father, Professor Charles Xavier, who, like Logan, seems to be approaching his death. The visual vocabulary *Logan* employs in telling this story is primarily that of a Western, the genre within which *Shane* functions as a foundational text³; at one point, Logan even dons a brown suede jacket and denim shirt that immediately call to mind Alan Ladd's costumes in the earlier film.

Of course, taken by themselves, the points just made hardly constitute a sustained intertextual engagement; rather, they can only be understood to do so in light of the fact that *Logan* directly quotes *Shane* on two occasions. The first of these quotations takes place as Logan, Laura, and Charles stop briefly at a hotel shortly after beginning their journey; there, Laura and Charles watch the end of *Shane* together on television. As the denouement of Stevens'

³ The question of how generic markers interact with the theorization of textual images detailed above – insofar as such markers are derived from the “family resemblance” borne by a series of related texts – unfortunately lies outside the scope of this paper, but provides a fascinating avenue for further research.

film – stretching from Torrey’s murder by Wilson, the “black-hat” sharpshooter analogue to Shane’s “white-hat” hero, through Torrey’s funeral, to Shane’s final speech to Joey before he rides back up the ridge he descended at the beginning of the film (which is by this time dotted with gravestones, including a prominently-placed cross) – plays in the background, Charles reminisces to Laura: “This is a very famous picture, Laura. It’s almost a hundred years old. I first saw this picture at the Esoldo Cinema in my hometown when I was your age.” The second citation comes in the film’s final moments, after Logan is killed by X-24, another technologically-engineered variant of himself, who Laura then shoots and kills with a special bullet given to her by Logan. Standing over a hastily-dug grave topped with a cross made of sticks that could easily be mistaken for Torrey’s grave in *Shane*, Laura recites a eulogy consisting of lines she and the viewer remember from her earlier viewing of *Shane*. Crucially, however, she does not quote from Torrey’s funeral scene, although the film makes clear that she has seen it; instead, she recites Shane’s famous parting words to Joey: “There’s no living with a killing. There’s no going back. Right or wrong, it’s a brand. A brand that sticks. Now run on home to your mother. You tell here everything’s alright. There are no more guns in the valley.” After the other children from the experiment — including one who is clutching a Wolverine action figure – have shuffled away from the gravesite, Laura takes the cross adorning the grave (a cross also present in the final shot of *Shane*), and rotates it forty-five degrees, transforming Logan’s burial marker from an icon referencing both *Shane* and another story of a savior descended from on high into an “X” – signifying, among other things, the X-Men.

If the first citation of *Shane* in *Logan* serves most obviously to indicate the symbolic codes with which the latter film plays, the second is dense with conceptual significance. By

having Laura bury Logan in the language of *Shane*, the film places itself into a dialogue with its predecessor, suggesting in the process that the X-Men represent a new generation of the same sort of conceptual archetype once embodied in the American imaginary by the cowboy.

Crucially, however, the film does not just appropriate the image of the cowboy, but uses it to suggest a critical reading of this development; while Shane resists Joey's overtures to teach him how to shoot a six-shooter throughout their film, it is with precisely that gun (and a bullet given to her by *Logan's* Shane-figure) that Laura kills X-24 (himself a black-clad version of Logan structurally analogous to the character of Wilson in the earlier film). In this difference – and through the film's ultraviolence, which takes on a new significance in light of Laura's closing quotation-oration – one can read a critique of the coarsening of culture and loss of innocence in the sixty-three years between *Shane's* release and *Logan's*. This reading is given further weight by Laura's choice to bury Logan not with the eulogy for Torrey found in *Shane*, but with Shane's declaration that "there are no more guns in the valley" – if the X-Men represent a new generation of cowboy, they nonetheless embody violence in a way that their prototypes never did.

This reading takes on yet more weight when one returns to the first appearance of *Shane* in *Logan*, and considers the fact that it is as this scene is unfolding that Logan, in the next room, makes a pair of discoveries that are not as independent as they might originally appear: that Laura was produced from his own genetic material, and that she is carrying with her a collection of X-Men comic books. The latter causes Logan to interrupt Charles and Laura's viewing; waving the comics in the air, he shouts: "You read these in your spare time? Oh yeah, Charles, we got ourselves an X-Men fan. You do know they're all bullshit, right? Maybe a quarter of it happened, and not like this. In the real world, people die, and no self-promoting asshole in a

leotard can stop it. This is ice cream for bed-wetters.” This scene represents the first time in any Marvel film that the existence of Marvel comics is acknowledged – a gesture whose significance is amplified by the appearance of a Wolverine action figure at Logan’s funeral. Thus, in one fell swoop, *Logan* sets *Shane* up to function in such a way that it enables the later film to comment on generations, and generations of representations of heroism, *through the interrelated operations of intertextual citation and self-referentiality* – that is, through exactly the snarl of signification at the heart of the textual image. If both *Shane* and the X-Men are technical images *par excellence*, mythical representations of concepts that absolve the reader of the responsibility to perform the kind of historical-conceptual thinking that attends writing, *Logan*, by writing with these images, manages to marshal them into the service of a new sort of conceptual thinking underwritten by the moving image.⁴

Thus, if the films of the Marvel Cinematic Universe illustrate the “universe of technical images,” *Logan* suggests how we might move into the universe of textual images. Strangely, the means that it suggests bears more than a passing resemblance to a claim made by Flusser late in *Does Writing Have a Future?*: “Writing can continue only with the goal of illuminating the alphabet, describing writing. Otherwise, there is nothing more to explain or describe” (151).

Such a claim only makes sense if one rejects Flusser’s attempts – never particularly convincing –

⁴ An almost-identical moment is found in Martin Scorsese’s *Hugo* (2011) – itself an homage to the cinema of Scorsese’s youth (particularly the films of Georges Méliès) – as the titular protagonist only barely escapes being run over by a train in a sequence that is clearly designed to reference the Lumière Brothers’ *L’Arrivée d’un train en gare de La Ciotat* (1896), which apocryphally startled its first viewers, who believed that the train rushing towards the camera would burst through the surface of the screen and into the space of the theater in which that sat. Insofar as *Hugo* took part in the wave of 3D films released in the wake of James Cameron’s *Avatar* (2009), and took advantage of this fact in order to have the train by which it references the earlier film *actually appear* to do precisely what spectators of 1896 film feared, it thus likewise mobilizes a mythological image from the cultural repository of technical images to make a conceptual comment on its own semiotics, thereby becoming a textual image. While it is not possible to analyze them here, examples of textual images can be found in the famous “Esper Sequence” from Ridley Scott’s *Blade Runner* (1982), as well as throughout Bernardo Bertelucci’s *The Dreamers* (2003).

to argue that writing is not itself a technical image of sorts; if it is, however, than what I have here called the textual image is nothing other than writing about writing, and using images to do so. With this in mind, it is worth looking at the final moments of *Iron Man*, *Marvel's The Avengers*, and *Logan*, which mask a meaningful divergence behind a shocking commonality: Each of the films closes with a letter. *Iron Man* closes with Tony Stark announcing "I am Iron Man" into a microphone, followed by a spray of flash photography; *Marvel's The Avengers* closes with a shot of Stark tower, so badly damaged in the Chitauri attack that all that remains of Starks name on the building is an "A" for Avengers; *Logan*, as discussed, closes with the recoding of a cross into an X, which we had previously suggested stood for the X-Men. The operation performed by, or on, the letter in the first two instances, however, bears a significance directly opposite to that borne by the third. The first absorbs the letter "I," the symbol of the self, into "the universe of technical images," in the sense of the letter's being identified as a symbol for "Iron Man" as well as in the sense of suggesting that the I of the Information Age is an Iron Man of sorts, a fusion of the human organism with the apparatus at the most profound level. The "A" at the end of *Marvel's The Avengers* performs a similar operation on a similarly symbolic letter; A, representing the alphabet, becomes nothing other than the a signifier for a concept – the fundamentally-affective anti-historical reconfiguration of the world that The Avengers embody – diametrically opposed to the sort of critical thinking that the alphabet more traditionally informed. In light of all that we have said about writing and traditional/technical/textual images, however, one is tempted to suggest that the "X" at the end of *Logan* represents the first letter of X-Men only secondarily, and that it's prime significance is instead the "x" of algebra – the point where letter and number, word and image, the computational determinism of the programmed

and the infinite openness of the variable meet, and insist that there will be writing as long as there are thoughts and human beings to think them, and that if that writing takes place in the additional dimensions of the image, it means only that new spaces of significance are opening, and that it is time to explore.

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