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The Geography Factor: Image as Localization, History as Place

Abstract: The paper explores the ability of a number of recent 3D mapping platforms and visualization systems (such as *Photosynth 2*, *Mapillary*, *Streetmuseum* and *History Pin*) to produce a different spatial and perceptual paradigm, one that merges reality and virtuality, past-tense and live experience, local and global. This type of visual experience, highly dependent on the "geography factor," is what I call "image as localization." I will demonstrate how the latter redefines in a profound manner the very definition of image and, in the process, the conceptualization of place and participation.

Keywords: Image; Location; Visualization; Technology; Geography; Pervasive Computing; Crowdsourcing.

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It became a truism to affirm that the recent implementation of increasingly sophisticated and widely accessible computational systems of visualization redefines to a large extent the ways in which we produce, edit, distribute and perceive images. The latter itself became an increasingly intricate matter. Image seems less and less a stable, definitive and enclosed perceptual entity, and more and more a threshold between physical and virtual realities, a hybrid place of media convergence, of cross representation, cultural encounters and memory, of illusion, appropriation, and – important for the proposed discussion here – a field of negotiations between planetary thinking and micro-local transformations.

If we accept that an image conceptualized and practiced in these ways equally subverts and supersedes the traditional defining notion, we should also note that there is no consistent, objective and broadly accepted definition of the image. Most scholars take image as a given term. Art historian James Elkins is right to observe in his book *What Is an Image?* that "There is, luckily, no way to summarize contemporary theories of the image," since we have to do with an "ill-defined field."[1] Nonetheless, luckily or not, image is perhaps one of the

most sensitive indicators of the planetary social and cultural transformations with far reaching implications at various levels.

In this paper I will explore, from a visual studies and media theory perspective, the transformations of the status of the image and its capacity to produce a different spatial and perceptual paradigm within the context of a number of contemporary media platforms and applications. The potential innovativeness proposed by some of these systems – more exactly, applications, supported by both desktop and mobile platforms, such as Photosynth, Mapillary History Pin, and Streetmuseum – relies on the capacity to offer a 3D representation of a specific place through the consistent integration of a wide variety of photographs of that particular place taken beforehand by various users, in different time frames. In all these cases, the system creates a seamless patchwork of images – precisely assigned to the original location on the map according to their respective angle – which can be viewed via multiple perspectives and magnifications in the "street view" mode and which can be shared with other users on the web.

My argument is that the visual organization and the operational strategies proposed by these technological applications and systems indicate the emergence of a different regime of the image, *the locational visual regime*, with its specific manifestation, *image as localization*. Briefly put, the term "regime" is understood here as the set of phenomenological, aesthetic and technological characteristics of the image and the status it has in terms of individual experience, societal circulation and distribution of meaning. By location I mean in this context the real-world geographical position on the ground, identifiable on a map, the point of physical placement and technological access, and of perceptual convergence and social connectedness. Localization, meanwhile, is seen as the adaptation of the image of a particular location to its very specific place in the real world through the use of mapping and visualization systems accessible through various devices, and based on geolocation, orientation and user interaction. Localization is, if I might say so, the performed location: the particular place objectively identified on the map performed by the subjective user at a planetary scale.

If we agree that the image as localization is one among other "new forms of visualization and orders of visibility," as media theorist Oliver Grau has described the recent media-based imaging,[2] then we should ask what is its defining character, its specific visual and mediatic dimensions? Or, equally important, what is its history, if it has one? In what way the new technologies taken into discussion and their specific regime of visuality both partake to and interrogate the phenomenon of planetary transgressiveness? How image as localization defines locality and how it is defined by it compared with other locational, planetary-wide visualization technologies such as GPS-driven navigation applications, mobile Augmented Reality, ubiquitous computing, Internet of Things, or other locative media? What are the roles played by collaborative authorship and shared media spaces in configuring the image? And, after all, should we see image as localization merely as a (technically improved) way to describe, in the words of Jacques Rancière, "certain forms of inhabiting the material world,"[3] or we should rather conceptualize it as a different spatial

and perceptual paradigm, something that is able to consistently converge image and location, history and place?

The first step in answering these questions is to provide a conceptual and historical framework for understanding the genealogy, kinships and production conditions of the image as localization. The latter should be understood in relation with – and in this sense, as an outgrowth of, or perhaps a dialectical encounter between – two other historically validated regimes of visuality: what I call *image as substitute* (or the representational visual regime), and *image as equivalence* (or the presentational visual regime). In what follows I will shortly explain these proposed notions as a way to better circumscribe and delimitate the concept of image as localization.

Regimes of Visuality – A Short Overview

The representational visual regime and its perceptual manifestation, image as substitute, is illustrated by the illusionist, perspectival tradition that can include painting, photography, cinema, televisual image, video or computer graphics. It is the image as virtual presence: it makes an object to be present with other means that the object itself – e.g. paint, chemicals, magnetic signal, pixels, form modulation, geometrical perspective etc. This is essentially a *re*-presentation – indexical or vaguely resembling, doesn't matter – since it is an image that substitutes the real object, it makes something visible as a re-staging in both temporal and spatial terms. In search for substitution, this kind of image stands as a testimony of a presence which is necessarily elsewhere and unavoidably anterior. It is, to borrow the words of Jacques Rancière, a "discourse encoding a history,"[4] an entity whose perceptual reality is based on a "relationship that produces the likeness of an original: not necessarily its faithful copy, but simply what suffices to stand for it"[5] (although, in Rancière's view, we can hardly distinguish nowadays between images and reality). Or, in other words – Jean-Luc Nancy's more precisely, representational image, "gives a presence that it lacks"[6]; it is "a thing that is not the thing: it distinguishes itself from it essentially."[7]

It is evident, then, that the concept of representation is defined at its core by the idea of presence. The etymology of the word is telling in this sense. "To represent" comes from the Latin *repræsentare,* from *re–,* intensive prefix, + *præsentare* "to present," literally, "to place before."[8] As art historian David Summers explains:

> *Repraesentatio* is a construction around the verb 'to be'. *Praesens* is a participial form of *praeesse*, 'to be before', which it means in two senses: the first is simple spatial, prepositional location; the second involves precedence or command, being higher in rank, more important than. Perhaps then 'presence' implies that which is not simply before us but which 'stands out' and concerns us, that to which we are in a sense subject. Then by extension the temporal 'present' might also be what is at hand, what can and usually does actually occupy our attention, as opposed to the past and the future, which are 'out of reach.'[9]

Therefore, the image of the representational regime is *the appearance of reality*, what it is presented to our senses as the

virtual imitation or interpretation of reality. In this sense, the representational image is a replica given to the real, in both senses of the term: as an imitation and as a way to give an answer to reality.[10] This means that representing is not (only) a way to open a window to the world, as Leon Battista Alberti has indicated, but a way to problematize the relationship with material reality. A relationship based on effect – that is, on virtuality – rather than on immediate, concrete presence. Virtuality should be understood, following media theorist Anne Friedberg, as something "that appears 'functionally or effectively but not formally' of the same materiality as what it represents."[11] This is what representation is about: it makes something virtually present. Stating potentialities but having no credentials, representation remains a "trope": it could never be a literal presence but only an image, an appearance.[12]

The presentational visual regime (image as equivalence), instead, includes situations in which the viewer experiences the image as the material presence of the objects, rather than objects represented *in absentia* via other visual intermediaries, as a virtual entity. The most eloquent case is that of installation art. Take for example, Ilya Kabakov's *The Man Who Flew into Space from His Apartment* (1981–88). The work is a delimited "theatrical" space comprised of a room with walls covered in colorful Soviet-era posters and a number of domestic elements, including a homemade catapult. Through the boarded-up entrance the viewer sees a bizarre scene: an alleged flight into space carried out by an unseen character who had apparently escaped through the hole in the ceiling. A metaphor for escaping from communist "paradise," the work illustrates the way in which real space and objects are employed to build a fictional story.

In this sense, Kabakov's work functions as a "scenography": instead of representing the component objects, it "*presents* these elements directly for us to experience."[13] If representational image is *the appearance of reality*, presentational image is *reality appearance* – what we perceive as reality. In this visual regime, objects and space stand for themselves; they are not substitutes for something that is necessarily elsewhere. They depict through their own presence, as equivalence: an image whose content is equivalent with itself. Or, as Jean-Luc Nancy notes, this is the image that functions as "self-coincidence or self-fittingness [*convenance à soi*]."[14] We should also note, along with philosopher Boris Groys writing about installation art, that this "is thus not an alternative to the image but precisely the extension of the concept of the image."[15] Indeed, this is an image that acquires spatial dimensions. More exactly, the work demarcates its own space within reality in order to create a fictional world, although remaining part of our own reality. Nevertheless, this is a reality under specific conditions; it is a sort of a mise-en-scène (with all its theoretical and practical implications, too numerous to be detailed here), or, as art theorist Anne Ring Petersen maintains, a "shaped space" a perceptual situation which "merges an aesthetically organized space with (...) a space of otherness: a strongly semioticized space of fiction which is fundamentally different – and thus separated – from the real-life sphere, yet always manifested in physical space."[16]

Important to mention is that circumscribing and identifying the particular

characteristics of these different visual regimes are not meant to trace rigid taxonomical borders. In practice, as well as in my own interpretation here, we acknowledge mutual determinations and possible overlapping and cross-readings between different types of images. However, I claim, the image as localization constitute a distinct perceptual and aesthetic category, the site of important revaluations concerning visuality, and therefore, it requires closer theoretical investigation.

Applications and Platforms: Connecting People, History and Place

Unlike the two types of visualization regimes described above, image as localization engages the viewer in a quite different experience in what concerns the production and practice of the image. The following examples will illuminate my point and give some perspectives on how the image as localization effectively works.

Photosynth was a powerful set of tools for capturing and viewing the world in 3D developed by Microsoft; launched on August 20, 2008, it was discontinued on 7 February 2017. Photosynth offered two styles for creating pseudo-immersive 3D experiences: Panoramas and Synths. I will refer here to the second, which was the original experience offered by this site.[17] Synth can be experienced as either mobile or desktop applications on the Photosynth.net website, or can be seen integrated in Bing maps classical view or street view. Synth offers the possibility of capturing and assembling different images of a site and buildings in a 3D view, by coherently integrating a wide variety of photographs of that specific place, taken and uploaded by different users, at different moments. The images, precisely assigned to the original location on the map and according to their orientation, are situated in a logical relationship to one another based on pattern recognition components, i.e. they are evenly related in terms of content, position, angle and framing, therefore capturing different sides or details of an object or place. Moreover, given the high resolution, they can be zoomed to see the finest detail. Photosynth matches all the images to each other by finding common points between them, thus permitting the continuous navigation from one shot to another.

Mapillary is an independent provider of street-level imagery and map data, untied to any particular mapping platform. It was founded in 2013 with the goal of making its service available to everyone, offering experience in both desktop and mobile modes. Mapillary has grown into a worldwide network of participants, with people and organizations contributing to map millions of kilometers across 190 countries. Contributors can join and collect street-level images, using any simple tools like smartphones or action cameras, as long as they provide geotagging. With the help of a software, the system extract map data and connects images across time and space to create homogenous street-level views.

Historypin is a digital, user-generated archive of historical photos, videos, audio recordings and personal recollections made available via Google Street View. The user is able to see historical images from different periods, gathered through crowdsourcing, inserted on the exact location where they were taken years before. Some

locations have photographs dating from different epochs, showing how a place has changed over time. The images are precisely assigned or, better said, "pinned" down to the original location on the map or in the visual field of the pedestrian/viewer according to their respective position, angle and framing. The historical shots can be seen either integrated on the image of the location seen in the "street-view" mode on desktop applications, or within a live view of the street perceived on a smartphone screen in the mobile applications. Moreover, metadata about the place, about the historical shot, and the circumstances in which it was taken are also provided.

Streetmuseum functions in the same way like History Pin, with the difference that the application was conceived specifically for London. The application guides users to various sites across London where hundreds of images of the city from the Museum of London's art and photographic collections can be viewed in-situ, essentially offering the user a window through time. Similar with History Pin, each image comes with information about the scene to give the users some historical content. Talking about the experiential impact of such applications, media theorist Jason Farman, in his book *Mobile Interface Theory*, writes that "applications like Streetmuseum demonstrate the ways that mobile technologies are able to imbue a space with meaning, thus transforming a space by giving it a sense of place. Additionally, beyond the ability to implace people, mobile technologies are able to offer users new ways of visualizing information."[18] Precisely these "new ways of visualizing" is what characterizes image as localization in the first place.

Image between Local Histories and Planetary Geographies

I contend that the image as localization offers possible alternatives to the established models of visuality described above, and to the concept of the image as it is defined in disciplines such as visual studies, art history or media theory, equally in what concerns the aesthetic dimensions and the mechanisms of production, distribution and reception of the image. In its practical use, such as in the applications discussed here, image as localization proposes a different visual paradigm compared with other location-based media and artistic practices, manifestations loosely identified as locative media, ubiquitous or pervasive computing – generally described as a localized modes of practicing artistic, communicational or social real-time exchanges via technology.[19] What makes image as localization different is that it is fundamentally based on an assortment of technologies which – unlike other types of technological imaging which are rather finite and sequential, or widely accessible but limited as perceptual experience – includes participatory and generative features, geolocation, visual data analysis, image-capture functionality, photogrammetry etc.[20] Certainly, technology should not be seen in a deterministic manner as the "pure" medium or as a simple vehicle of the productive act, but rather as the perceptual environment, the operational conditions and the expression of the of the user's agency. Moreover, we should also recognize the important differences between image as localization and other related media tools and platforms, equally based on user-generated content. In this sense, image as localization can be

described – if it is to adopt an oft-used prefix – as post-photographic, post-Flickr, post-YouTube, and post-Virtual Reality.

My main argument is supported by the fact that, in contrast with these other visual production and distribution means, the aspect and the content of the image as localization rely equally on: real-virtual convergence (the overlapping between the two realms interactively and in real time), localization (images are geo-tagged and integrated, in 3D, into their specific location and viewing angle on the map), temporal aggregation (the image juxtaposes different temporalities within the same space), unstable visuality (the image permits multiple and changeable viewpoints of the same location), collaborative authorship (the image is a sort of collective memory of a precise location built with data extracted from various authors through "crowdsourcing."). We might, therefore, assume that image as localization is one of the several perceptual and aesthetic expressions of Augmented Reality experience, an identification supported by factors manifested at different levels.

First of all, locational visual regime *re-evaluates in a profound manner the very definition of image* and, in the process, the conceptualization of place and participation. One of the most enduring definitions of the image is that which associates it with a "window," seen by Leon Battista Alberti as the representational paradigm that establishes the construction and the perception of the image. Related to Alberti's view is the theory which identifies the structural model of the image as the "cut-out rectangle," the latter being perceived by theorists such as Roland Barthes, as the very condition of the image. As Barthes explains – following Diderot's reflections on the same theme – "the tableau (pictorial, theatrical, literary) is a pure cut-out segment with clearly defined edges, irreversible and incorruptible; everything that surrounds it is banished into nothingness, remains unnamed, while everything that it admits within its field is promoted into essence, into light, into view."[21] Thus, for Barthes, the image is a window-like representational field with clearly defined edges, a principle that traverses genres, epochs and technologies. Elaborating on this idea, Barthes writes: "The scene, the picture, the shot, the cut-out rectangle, here we have the very *condition* that allows us to conceive theater, painting, cinema, literature, all those arts, that is, other than music and which could be called *dioptric arts.*"[22] This view is shared also by André Bazin who believes that there is a certain tension between the cinema screen (and implicitly the cinematic image) and the exterior, the "outside" of the image. While the screen, writes Bazin, is "centrifugal," opening up the spaces of representation to the exterior, to the off-screen environment, the frame is "centripetal" in the sense that it tries to deny any exterior interference by circumscribing the image as a pure occurrence.[23]

It is this conceptualization of image that the locational visual regime critically reassesses. This is achieved by abolishing the ontological gap between reality and virtual image as well as the distinction between various temporalities (between photographs taken in different timeframes, and between them and the real-time of the perception), a process that is always in direct connection with a specific place in the real world, making "the geography factor" an essential feature of the experience. I will

explain these assertions in more details below.

In the locational visual regime, the phenomenological and aesthetic role of the conventional image, in other words its "window condition," is challenged in two ways. On the one hand, this is achieved by relativizing the role of the frame by making it "invisible," that is, by undermining its manifest role as a separator between on-screen and off-screen images, together with all the conventions associated to it. On the other hand, these systems question the very nature of the screen as the "neutral" surface, and implicitly Alberti's precepts about the windowed view, by rendering the screen "transparent."[24] That is, offering the viewer – especially when platforms or applications are experienced in the mobile mode – an optical or video-mediated image of the space and objects behind the material surface of the display in real time, as if it were transparent.

By reconsidering the role of the frame as a separator and by challenging the idea of the screen as an opaque interface, and thus converging the experience of the real world and virtual information, locational visual regime not only redefines the image, but, consequently, it offers the viewer a different experience of space. If we agree with media theorist Lev Manovich that new media "turn most images into image-interfaces and image-instruments,"[25] we should equally emphasize that certain new media systems such as those in discussion here turn them also into image-spaces bounded to a specific place on the map, but at the same time open – via their very network capabilities and worldwide availability – to spatial planetary imaginary. This spatial experience of the image is, therefore, highly dependent on the "geography factor," on the location's coordinates and physical characteristics of the setting, all these being fundamental components of the image. We should admit, however, that this is not unique for the image as localization: the presentational visual regime is equally dependent on the setting (installation is essentially site-specific), although the difference is that in the locational visual regime the image is mediated, computational, modular, variable, and process-oriented as it is permanently renewed and adapted to the setting, while the user moves from one point of interest to another.

This new experience of spatiality provided to the user by Photosynth, Mapillary History Pin, and Streetmuseum has as a logical consequence a different approach vis-à-vis the idea of location and the sense of localization. Thus, the metaphor of the interface comes up again. As Jason Farman has rightly observed, the experience of the user in the context offered by these kind of applications is able to "transform our location into an information interface."[26] That is, the location we access – either in situ, or online – is equally the expression of the phenomenological presence of that particular landscape, and a product of the activity of the body and of the informational flow. Or, to put it differently, the material presence of a specific location (itself mediatized through the app) and the localized data flux of media information are both split and unified into the same locational visual entity via the active body. The user does not simply contemplate a certain place or location, but participate to its production (and, here, Michel de Certeau's and Henri Lefebvre's considerations about the *production* of space might give a

useful interpretative context which would require a separate discussion). In the field of new media, philosopher Mark B. N. Hansen points to the same aspect when he affirms that the image (of the kind we discuss here) becomes "a means for the new media user to intervene in the production of the 'real,' now understood as a rendering of data."[27] Therefore, it is fair to assert that image as localization is not only a reflection of the world, but also an effective way to localize and intervene in (i.e. produce) the world – visually, culturally, socially and politically. The image as localization created by user's involvement with these systems (especially Photosynth, Mapillary and HistoryPin, since they are user-generated) is thus both a process and a vehicle for delegating the power and redesigning the power relationships, as well as the circulation of knowledge (a point that surely deserves more elaboration, although this is not my concern here).

And this observation leads us to the next aspect related to the image as localization: *the relationship between the viewing subject and the world viewed*: the image as localization undermines the idea of unique point of view, proposing instead a variable epistemic position for the viewer, a relationship without a clear center. This is made possible by the flexible situatedness of the viewer and equally by relativizing the role of the frame as a strict and unique instrument that delimitates the view. Such a decentered position is able to redefine or undermine also any "dominant" or unique viewpoint – whatever the way we understand this dominance: historical, representational, scientific, gender-based, cultural, etc.

Moreover, the multiple and changing perspectives accessible through the use of these applications are in themselves an exercise of relating sites and situations, to create connections in an unprecedented way, given the systems' technological scope and perceptual complexity. It is true that geography has always been preoccupied to reflect this relationship. Geographer Fred Lukermann is clear in this sense: "for possibly three thousand years the place of something has been described in terms of the internal arrangement of features (site) and of external connectivity and environs (situations). Separately or together as definitions of place, site and situation are locating *in relation to* some other place or thing. To locate is to relate."[28] It is worth noting that since the Renaissance, the (geographical) space, those spatial arrangements and relations mentioned by Lukermann, were understood in the form of a unified, homogenous entity in line with the Cartesian view of space, but also resonant with linear perspective in painting, the nation-state in geopolitics, and the birth of cartography.[29] In other words, modern people believed in a relational, albeit homogenous space. Nevertheless, contemporary technological advances and the shift in the global mechanisms which makes the world a nexus of people, capital, ideas, goods and images have reconfigured the very idea of spatial relationships, now seen as a de-hierarchized, rhizomatic processes embedded in interconnected locations. The applications we take as examples here participate in this concentrate effort to set up "a vast hyperspace, an electronic inscription of the cultural logic of late capitalism."[30] Within the regime of visuality operated by these applications, geography is turned into an open-ended platform with multiple, concurrent viewpoints. And, what is crucial, it works as a world-view that encapsulates

numerous situations, represented by the photographs that carry their own histories, permanently actualized in situ by the user.

This statement points to the next important aspect regarding image as localization and the transformations it entails: *the temporal dimension*. The main content and the principal incitement put forward by these applications are based on photographs assembled from various sources: images taken in different time intervals by contemporary users (such as in Photosynth and Mapillary), or retrieved from different historical archives, personal or institutional (such as in History Pin and Streetmuseum). Covering various temporalities, i.e. past moments and events, closer or farther in time, the photographs are continually "actualized" once displayed and overlapped within the same interaction framework by the user, therefore defying the notion of the linear flow of time. Proposing such a temporal aggregation these applications articulate "a spatialization of history" as art theorist Christine Ross has written, that is, they emphasize "the simultaneity of events and vantage points rather than their succession; the aesthetic requirement to inhabit the present; and the need to attend to the unequal allocation of time."[31] Surely, the idea of operating with different timeframes corresponding to disparate historical evens within the same visual field is not new. We should remember in this sense medieval manuscripts, Renaissance religious or historical scenes or Cubism's analytical treatment of the object, to name just a few. What is new about these applications, however, is that the image – the locational image, to be sure – unites and overlays the past presented in the recorded images with the immediacy of their viewing.

In this sense, the photographs accessed by the user function as a sort of "meta discourse" about a specific location. A discourse accessible only to the user of the applications who thus becomes the privileged recipient of information able to cite a history, to decipher a cultural pedigree, to mark significant local moments, to acknowledge personal experiences and to associate meaningful memories to a specific location. I should emphasize that this is a non-hierarchical discourse, a non-successive situation, since the image as localization is defined beyond a unique spatial, temporal or authorial working frame; its internal organization has no linear character—a component image speaks about another image without any specific priorities. Therefore, contrary to the common conception of the meta-image as something "located on a logically higher level"[32] vis-à-vis a "main" image, I understand the idea of image as localization as a meta-representational tool considering that the images that composes it (for example, the mediated street view or the juxtaposed historical pictures) are of equal referential value; they are concurrent, yet convergent discourses about the same place and subject matter, albeit temporally delayed.

If I repeatedly emphasized the importance of decentered and decentering nature of the image as localization this is to emphasize also the pluralistic dimension concerning the user/viewing subject/contributor. An aspect that points to the next characteristic of this visual regime: *the question of authorship and ubiquity*. If we accept, along with media theorist William Uricchio that "authorship, in this context, is both problematic and pluriform,"[33] this is to acknowledge that within this visual

regime the image is as much the product of location and localization as it is the outcome of an auctorial collective effort—of the individual photographers whose contributions are collected through "crowdsourcing" and/or by using historical archival resources. Authorship, therefore, is unstable and distributive and it works in a double sense: the "author" might be equally the "source" of the image and its recipient, as long as the visualization process remains highly dependent on the context and on the user's agency.

Significant effort was dedicated in the humanities to explain the idea – which became a poststructuralist mantra – of "the death of the author." Even if in the cases analyzed here we don't have to do with an author in the proper, artistic sense of the term, we can safely assume that what we encounter here, and in interactive media in general, is not the diminishing – and even less the "death" – of the author, but the expansion of the auctorial role, together with his/her effective presence as a direct, omnipresent participant. Moreover, the transformations in the nature of the image construction and of the visualization mechanisms described above reflect the increasing democratization and decentralization of the access to image creation and consumption. Therefore, image as localization can be seen not only as a site-specific and post-desktop product but also as a result of an independent, post-institutional and multi-authored practice (derived mainly from the possibilities offered by the open-source applications and the social media sharing usage).

We should also note that, in this context, auctorial flexibility and diversity is directly related to (if not quite determined by) the wide accessibility and the large geographic coverage put forward by these applications. Such a situation is what defines ubiquitous computing or pervasive media in the first place: the capacity to place emphasis on the embeddedness of visual and textual information in the surrounding everyday world and to provide easy access to them through various forms of mobile connectivity. However, it is already known that artists, developers and users alike are more and more preoccupied to challenge "the discursive construction of pervasive computing as 'everywhere' by actually locating these technologies 'somewhere'" and thus creating "more meaningful relations with the people, places, and objects that surrounds us."[34] Indeed, it is important to acknowledge with regard to this aspect that there is a significant difference between the experience of the application in situ – that emphasizes the embodied approach to contextual features – and that carried out online in a different location – in this case, the accent being on translocal and global connections and information transfer. In either case, however, the geography factor plays a crucial role: Photosynth, Mapillary History Pin, and Streetmuseum are each of them specific ways to partake to the process of globalization although by constantly and effectively reaffirming the local and the particular.

Conclusion

I have argued that the locational visual regime – given its high dependence on the "geography factor" and technologies of communication – is profoundly different from other regimes of visuality: the representational and the presentational visual

regime, respectively. This is also a way to assume, regardless any prejudices related to technological determinism, that the image as localization offers an altogether new experience to the viewer, and this is largely due to technology. However, if I claim its novelty, I also acknowledge that there is a long tradition of visualization and representation of the world, specifically, in landscape painting and mapping. Notwithstanding the epoch or culture, there have always been complicities between place and image that led to profound transformations on both sides. Cultural theorist Edward S. Casey is right to observe that image making in relationship with a place "is not a contingent matter, something merely secondary; it is integral to the perception of landscape itself – indeed, part of its being and essential to its manifestation."[35] The aesthetic, cultural and political implications of landscape representation or cartography is evident all along human history. Nevertheless, in the locational visual regime, the connection between place, image and the viewing body is equally closer and complicated. Indeed, image as localization means the articulation of various elements such as ubiquitous connectivity, new strategies of imaging and narration (both technological and conceptual), short-circuiting of the image into its own presence in situ as a localized event, an image surrendered to the "haptic sight" (i.e. the abolishment of the distance between image and its surroundings), emplacement of the historical event through image, psychogeographical exploration (the subjective, emotional approach to territory), temporary activation of a specific site as a node within a planetary network, permanent shift between the roles of the viewer and the contributor, interaction between viewers/users and collective authorship, at a planetary scale.

As I have demonstrated above, the visualization practice facilitated by platforms such as Photosynt, Mapillary, History Pin and Streetmuseum, has a double consequence: on the one hand it contributes to the redefinition of locality, now transformed into an "information interface," and on the other, it critically reevaluates the conceptualization of the image as a unique and authentic presence of the subject, as a distinct construction defined in terms of the "cut-out rectangle." Instead, it proposes an image that is at the same time a subjective personal approach, a collective process and a species of locality. In this sense, image as localization might be seen as one of the most relevant – or, at least, visible – manifestations of the intricate relationship between spatio-temporal specificity and transgressivity, more precisely, between the micro-local and planetarity.

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Notes

1. James Elkins and Maja Naef (eds.), *What is an image?*, University Park, Pennsylvania, The Pennsylvania State University Press, 2013, p. 1 & 2.
2. Oliver Grau with Thomas Veigl, (eds.), *Imagery in the 21st Century*. Cambridge (Massachusetts) & London (England), The MIT Press, 2011 p. 1.

3. Jacques Rancière, *The Future of the Image*, translated by Gregory Elliott, London and New York, Verso, 2007, p. 92.
4. *Ibidem*, p. 11.
5. *Ibidem*, p. 6.
6. "Making an image means producing a relief, a protrusion, a trait, a presence. Above all, the image gives presence. It is a manner of presence. Manner and matter of presence." Jean-Luc Nancy, *The Ground of the Image*, Translated by Jeff Fort, New York: Fordham University Press, 2005, p. 66.
7. *Ibidem*, p. 2.
8. Cf. Douglas Harper, *Online Etymology Dictionary*, 2001, http://www.etymonline.com (accessed January 2020)
9. David Summers, "Representation," in Robert S. Nelson and Richard Shiff (eds.), *Critical Terms for Art History*, Chicago and London, University of Chicago Press, 2003, p. 6.
10. Anca Oroveanu, *European Theory of Art and Psychoanalysis*, Bucharest, Meridiane, 2000, p. 110 (my translation).
11. Anne Friedberg, *The Virtual Window. From Alberti to Microsoft*, Cambridge (Massachusetts) and London (England), The MIT Press, 2006, p. 11.
12. It should be added that although the term virtual is generally employed in strict association with electronic media, "virtual" should not necessarily or exclusively be related with the digital. As Ann Friedberg correctly remarks, "before the digital age, there was virtuality—painterly, photographic, cinematic and televisual—and its aesthetics and visual systems cannot be reduced simply to information. (…) Once the term 'virtual' is free from its enforced association with the 'digital', it can more accurately operate as a marker of an ontological, not media-specific, property" (Anne Friedberg, *Ibidem*, p. 11.) Oliver Grau, too, in his book *Virtual Art, From Illusion to Immersion*, provided a clear argument regarding the needed disjunction between "virtual" and digital immersive technology. See Oliver Grau, *Virtual Art: from Illusion to Immersion*, translated by Gloria Custance, Cambridge (Massachusetts) and London (England), The MIT Press, 2003.
13. Claire Bishop, *Installation Art: A Critical History*, London and New York, Routledge, 2005, p. 11.
14. Jean-Luc Nancy, *The Ground of the Image*, p. 9.
15. Boris Groys, "Multiple Authorship," in *Art Power*, Cambridge (Massachusetts) and London (England), The MIT Press, 2008, p. 95.
16. Anne Ring Petersen, *Installation Art Between Image and Stage*, Copenhagen, Museum Tusculanum Press/University of Copenhagen, 2015, p. 50.
17. Synth are the original experience on this site, but Photosynth also offers panoramas. However, this particular case will not be discussed here, since panoramas are not a case of locational image: instead of being a patchwork of multiple images taken from different angles at, sometimes, very different moments, and perceived in situ or in street view mode, panoramas capture the view in every possible direction but from exactly one location and in a very limited time span.
18. Jason Farman, *Mobile Interface Theory. Embodied Space and Locative Media*, New York and London, Routledge, 2012, p. 40.
19. Cultural theorist Ulrik Ekman provides a useful working definition of ubiquitous computing: "a sociocultural *and* technical thrust to integrate and/or embed computing pervasively, to have information processing thoroughly integrated with or embedded into everyday objects and activities, including those pertaining to human bodies and their parts." Ulrik Ekman, "Introduction," *Throughout. Art and Culture Emerging with Ubiquitous Computing*, edited by Ulrik Ekman, Cambridge, Massachusetts and London, England, The MIT Press, 2013, p. 22.
20. Media arts scholar Christiane Paul brings very convincing arguments to explain the difference between more traditional ways of using digital technologies (in art) and those that are defined by a more complex approach of creation, storage, and distribution. "One needs to distinguish between art that uses digital technologies as a tool for the production of a more traditional art object—such as a photograph, print, or sculpture; and the digital-born art that employs these technologies as a tool for the creation of

a less material, software-based form that utilizes the digital medium's inherent characteristics, such as its participatory and generative features." Christiane Paul, (ed.), A companion to Digital Art, Hoboken, NJ, Wiley-Blackwell, 2016, p. 2.

21. Roland Barthes, "Diderot, Brecht, Eisenstein," in Narrative, Apparatus, Ideology: A Film Theory Reader, edited by Philip Rosen, translated by Stephen Heath. New York, Columbia University Press,1986, p. 173.

22. *Ibidem*.

23. André Bazin, *What is Cinema*, vol. I, translated by Hugh Gray. Berkley, University of California Press, 1967, p. 166.

24. This might seem paradoxical, although we should note that apparently for Alberti "the frame was what mattered, not the view from a window," as Anne Friedberg has demonstrated. She writes: "Alberti used the window predominately as a metaphor for the frame – the relation of a fixed viewer to a framed view – and *not as a 'transparent' window on the world*, as has been suggested widely by art historians and media theorists." Anne Friedberg, *The Virtual Window*, p. 30 and p. 12 (my emphasis).

25. Lev Manovich, *The Language of New Media*. Cambridge, Massachusetts and London, England, The MIT Press, 2001, p. 183.

26. Jason Farman, *Mobile Interface Theory*, p. 13.

27. Mark B. N. Hansen, *New Philosophy for New Media*, Cambridge, Massachusetts and London, England, The MIT Press, 2004, p. 10.

28. Fred Lukermann, "Geography as a formal intellectual discipline, and the way it contributes to human knowledge," *The Canadian Geographer*, vol. VIII, no. 4, 1964, p. 169. (emphasis in the original)

29. Barney Warf, "From surface to networks," in *The Spatial Turn. Interdisciplinary perspectives*. Edited by Barney Warf and Santa Arias, London and New York, Routledge, 2009, esp. p. 64.

30. Derek Gregory, *Geographical Imaginations*, Cambridge, MA and Oxford, UK, Blackwell, 1994, p. 98.

31. Christine Ross, "Real Time, Lived Time: AR Art, Perception, and the Possibility of the Event" in *Precarious Visualities: New Perspectives on Identification in Contemporary Art and Visual Culture*, edited by Olivier Asselin, Johanne Lamoureux, and Christine Ross. Montreal & Kingston, McGill-Queen's University Press, 2008, p. 127.

32. Werner Wolf et al. (eds.), *The Metareferential Turn in Contemporary Arts and Media: Forms, Functions, Attempts at Explanation*, Amsterdam and New York, Rodopi, 2011, p. 3.

33. William Uricchio, "The Algorithmic Turn: Photosynth, Augmented Reality and the Changing Implications of the Image," *Visual Studies* 26, No 1, 2011, p. 31.

34. Anne Galloway, "Affective Politics in Urban Computing and Locative Media," in Ulrik Ekman (ed.) *Throughout. Art and Culture Emerging with Ubiquitous Computing*, p. 352.

35. Edward S. Casey, *Representing Place. Landscape Painting and Maps*, Minneapolis and London, University of Minnesota Press, 2002, p. xv.