From the “Red Books” of Humphry Repton to the Digital Visualization, A Pedagogical Review

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1 Introduction

HEMPHRY REPTON’S (1752 –1818), the greatest British landscape designer of the 18th century, visualizations of landscapes marked a shift in landscape representation that continues to exist with the landscape discipline to this date. His “Red Books” of ‘before’ and ‘after’ drawings of landscapes allowed him to make future landscapes present to his clients in a compelling manner. They contained his proposals for changes outlined in neat copperplate handwriting and embellished with maps, plans, drawings and water-colors to illustrate his ideas. ... These innovative ideas helped shape a new ideology in landscape design. His watercolor representations, comparing existing site condition and future site proposals, allowed him effectively communicate with his clients, a tradition that is increasingly practiced in the profession of landscape architecture today by means of digital media.

There is no doubt that digital representation is growing with a fast pace in landscape and design disciplines. They are employed in a vast range of capacities, from the Geographic Information System (GIS) for landscape studies, to site design and modeling (e.g. Sketchup, VectorWorks, Form Z…), to final rendering and site visualizations (e.g. Photoshop). In many ways the process of visualization of future landscapes is analogous to what REPTON proposed over two centuries ago. Considering that both methods, manual and digital representations, are integral part of landscape education, it is imperative to review both of these methods from a pedagogical point of view.

For this purpose, the “landscape medium” and its relationship to visual representations will be discussed under a coherent theoretical framework. For the purpose of this study, landscape visualization is put in a broader context of visual representation (e.g. drawing) and the design process. This will help conduct a pedagogical comparison between digital and hand-drawn visualizations to have a theoretical ground explaining human’s faculties of understanding and their role in making visual narratives and the design thinking process.
Human’s Faculties and the Landscape Medium

In every place in which I was consulted, I found that I was gifted with the particular faculty of seeing almost immediately the way in which it might be improved and I only wanted the means of making my ideas equally visible, or intelligible to others. This led to my delivering my reports in writing, accompanied with maps and such sketches, as once showed the presence, and the proposed portraits of the various scenes capable of improvement.

-Humphry Repton

Landscape is a multifaceted medium. It is essentially multi-sensory; we interact with natural and build landscapes via our senses of vision, tactile experience and more. Our sensory experiences help us obtain essential understandings from landscapes, which is also reflected in our visual representations. Landscapes also involve pure conceptual ideas such as geometry, axis, and conceptual meanings. This is another level of the landscape medium that goes beyond a sensory experience of the landscape. For example, they way we relate presence of geometry in a classical garden to archetypes is a matter belonging to our ability of reasoning and judgment, a thing that belongs to the realm of critical thinking and intellect. There is, however, another level that humans related themselves to landscapes, which is the establishments of an imaginative relationship between the individual and a community with certain landscapes. Sacred landscapes heavily loaded with myths and stories are of that kind. An example in this regard would be Islamic gardens as symbolic representations of heaven on earth. While a physical environment (sensory experience) with geometric structure (to be captured by the intellect), they also offer another level of engagement with the users, imaginative involvement. Therefore, we can see how the landscape medium, and thereby, visualization of this medium is associated with the human’s sensory, intellect, and imaginative experiences.

Western and Eastern philosophical worldviews confirm three realms of reality associated with perception and knowledge: the Intellect, the Imagination, and the Senses. Associated with each of these realms are intelligible concepts, imaginary or imaginal figures, and sensible data that can be grasped from the world or can be given to the world. This is particularly evident in the Neo-Platonist philosophy of Renaissance thinkers such as Marsilio Ficino and Giambattista Vico, as well as scholars who embraced the beliefs of 13th century mystic and philosopher, Ibn-Arabi—which were later reaffirmed by French philosopher Henry Corbin and American thinker William Chittick.

Both of these perspectives advocate that human knowledge and the creation of artifacts (e.g. landscapes) necessitate the use of all three realms: the human intellect (critical reasoning of the mind), the imagination (the ability to produce mental images), and the senses (corporeally sensing and relating the self to the world). Landscapes, built or natural, also are phenomena that involve the above three cognitive realms, both in representing an existing landscape and conceiving a future landscape. The drawing or visualization, then, can be viewed an essential intermediary that engages these three realms of understanding. That is, the drawing becomes a representation of critical and analytical thinking that can embody intelligible ideas and concepts, a poetic manifestation of an imaginative process, or an
expression of a sensual approach to the landscape—or most likely a combination of all three.

With the above brief discussion on the threefold model for human understanding, this study will discuss and compare HUMPHRY REPTON’S drawings and digital visualizations on that basis. The purpose here is to better understand the commonalities and differences between the two traditions, one based on embodied experience of landscapes and the other based on the use of digital media. Such scrutiny will shed light on the landscape design thinking and communication.

3 Visual Representation and Landscape Education

“Landscape architectural drawing is not so much an outcome of a reflection on a preexisting reality, as it is a productive of a reality that will later emerge.”

JAMES CORNER (2002, P.145)

Landscape architecture, has traditionally embraced drawing as an essential and reliable tool for crafting ideas to the material world. Landscape drawing, visualization, is an act of casting. We draw to cast our ideas on paper and into the material world. Design drawings are mostly of this kind versus those that capture actual environments. We draw something on paper, which does not exist “out there.” To draw, then, is to demonstrate the foreseen, or to make visible something that does not yet exist. What we call as “before” and “after” visualizations, indeed, correspond to the present condition of a site and the future proposed one, a cast landscape onto paper or digital image on screen.

Considering that landscape representation visualizes places that existed in the past, exist in the present or will exist in the future, the process of visualization earns a high contemplative, creative, and multi-sensory status as in visualizing landscapes all of those factors play a major role. I would argue, in effect, that the landscape visualization should be viewed as a process closely interacting with the “landscape medium” at one end and the designer’s perceptive and cognitive faculties at the other end. Therefore, drawing or visualization also should be scrutinized beyond our conventional view, an enhanced view that cannot simplistically answer “yes” to questions such as the followings:

- Can we presume that a landscape rendering is merely the final product of a mental intention made graphic?
- Are landscape drawings only two-dimensional graphics representing three-dimensional spaces? If so, would not they be reduced forms of richer realities?
- Is it legitimate to treat the drawing merely as a prescriptive document, a one-to-one graphic instruction, for a future site or building? If so, would not they be voided of any contemplative qualities?
- Would it be fair to follow the conventional view of the architectural drawing that considers it, at best, as a paradigm for architectural knowledge based on a visual
relationship between an idea and a built work? If so, then how can a merely visual means create meaningful spaces?

Such questions lead us to other set of questions such as: If there is no place for other senses in landscape visualization, then, why we would rely on this reduced form of representation to communicate future landscapes? And what would be the relationship between an ornate visualized rendering (hand crafted or digitally made) and the practicality of the landscape space?

Correct answer to this questions require deeper understanding of drawing (and thereby visualization) as a unique means of expressing and producing thoughts in architectural disciplines. Repton, for example, clarifies his work by indicating his watercolors “meant to elucidate rather than ornament” xiii, which takes his renderings into a higher level; depiction of the landscape medium in the best possible way available to him at the time. That is the same case in many digital media representations, in which the produced model or image is the only accessible representation to an intended landscape.

HANS-GEORGE GADAMER, German philosopher, sheds light on the role of the representation: “what is represented is itself present in the only possible way possible to it.” (VESLEY 2004) Therefore, visual representations of future landscapes could be realities denoting emerging landscapes in the future. With this perspective, we can look back at the drawing as original sites for landscape contemplation. In fact, following this view, many scholars such as Marco Frascari indicate: “buildings are representations of drawings” (FRASCARI 2009). With that in mind, we can argue that built landscapes are also representations of earlier visualized landscapes.

With Gadamer’s insights on the notion of representation, we not only should consider drawing as the only possible way of making landscape space tangible or visible, but also a way to enter an environment of representational knowledge. In short, landscape drawing; belonging to the realm of human experience would no longer be a less authentic form of a “thought”. Rather, it is “thought” in its only possible way to the future landscape.

With this brief philosophical discussion on the unique role of representation and its relationship with landscape education, the paper will discuss the role of visual representation and visualization in landscape architecture with regards to human’s intellectual concepts, imaginative engagement, and sensory perception. Incorporated in the discussion is a comparative study between digital visualization and hand-crafted representations’ of HUMPHRY REPTON.
3.1 Visualization of Intellectual Concepts

Concept drawings provide the framework for organizing our ideas. They are strategic representations that force the designer and viewer to discover additional possibilities.

- Landscape Architect WALTER HOOD (TRIEB 2009)

Drawing and visual representations of landscapes contain and communicate intellectual understandings regarding landscapes. Concept drawings and diagram drawings simply represent ideas and analytical thoughts regarding sites. Other examples include conceptual symbols holding cultural meaning and values. Whether we can call such drawings and visual representations “knowledge” by scientific measures, they do, in fact, contain essential knowing about a landscape.

Various modes of visual representation contain and communicate intellectual different aspects of ideas. For example, a plan could be considered as an intellectual means as it is an abstract representation of an actual site. If we compare a plan to a perspective drawing from a site, we clearly observe that the perspective is more associated with the “real eye” and the plan is more skin to the “intellectual eye” of the landscape designer.

HUMPHRY REPTON rarely used plans for his improvement proposals. He, instead, preferred to go to the site and have direct observations and visualize landscapes in perspective drawings. This does not mean that he did not pay attention to the conceptual and analytical aspects of design as he mentions with frustrations: “Of many hundreds of plans, digested with care, thought and attention, few were ever so carried into execution, that I could be pleased with my own works” (DANIELS, 1994). this simply shows that his improvements were beyond pictorial suggestions and contained essential thoughts such as topographical changes, vegetation interventions, or irrigation. However, one could argue that in absence of plan, some issues could be missed throughout the process of landscape improvement.

Digital media offer tremendous opportunities in this regard, for most softwares have been designed to operate within a clear conceptual and mathematical order. Geographic, climatic, and topographic information, for example, are amongst data and information that belong to the realm of intellectual reasoning. Additionally, 3D modeling of a site in digital media based on topographical map and the possibility to simulate it for analysis and investigation at multiple scales is an effective valuable tool, offering new possibilities to study landscapes. For example, by use of ARC GIS we can virtually generate topographical map of a site and capture viewsheds from any point of the site and be able to see the viewshed or “seen” area in a plan map, an experience that would take hours of lived experience in the landscape for Repton with different results, perspective drawings.

One other unique characteristics of digital visualization is the use of mixed media. This offers superimposed multi-layered visualizations of landscapes, some based on a 3D digital model while other layers based on a 2D graphic visualization. This is a capacity that does not fully exist in hand-drawing visualizations and clearly did not exist within Repton’s visualization approach. For example, consider combining a wireframe model of a proposed
One other effective visual drawing is axonometric drawings in landscape architecture. Early modernist landscape architects such as GARRET ECKBO, adopting use of axonometric drawings from architecture, introduced the power of such drawings relevant to a better design process and a more effective communication tool. DOROTHY IMBERET (see TRIEB, 2009) insightfully indicates that axonometric drawings are as “intellectual” eye of the designer. Such indication clearly associates axonometric drawings with intellectual faculty of understanding. In these drawings, one can see both plan and vertical surfaces without any distortion of dimensions. They indeed represent the intellectual eye of the landscape architect since in reality there is no chance to see a project in such views. The ability to see different layer of the design as “exploded axonometric” introduces a higher level of intellectual presence in a drawing. These drawings while not belonging to the digital culture but are heavily used when a digital model is made.

In short, landscape visualization and intellectual understanding are related in many ways. As visual representations become more abstract or the process of making those representations involve use of digital media, presence of the intellect becomes more apparent. Whereas, in the case of HUMPHRY REPTON, while he did tremendous site investigations, his choice of perspective drawing could be considered as a restriction to the process of site development for us.

### 3.2 Imagination and Visualization

...what is crucial in the consideration of architecture is not seeing but the apprehension of structures. The objective effect of the buildings on the imaginative being of the viewer is more important than their ‘being seen.’ In short, the most essential characteristic of the architectural drawing is that it does not take a pictorial detour.

-WALTER BENJAMIN

They [drawings] are experimental operations that stretch the imagination

- WALTER HOOD (TRIEB 2009)

Whether intended for landscapes or buildings, drawing can involve one’s imagination. The designer’s imagination incorporated in the drawing is an inseparable part of the visualization process. According to GIAMBATTISTA VICO (1984), imaginative reconstructions can enhance our understanding of things. In such a way, one can see that the key role of drawing is in image making and the creation of new understandings. This involves the act of interpreting landscapes in creatively constructed mental images of what is intended to be drawn. We should be reminded that imagination and drawing share one
fundamental thing: “image.” That is, imagination through a creation of mental images become integrated with the drawing and creates a final image on an external medium, e.g. a piece of paper.

Many philosophers such as Vico, Ficino, Ibn Arabi and Corbin introduce Imagination as as a noetic cognitive faculty that mediates between sensory experience and intellect. FRASCARI (2008) also indicates that “imagination is the human faculty that keeps together what has been collected by different and discrete perceptions. This faculty has the gist of the Aristotelian koine aesthesis, also known as sensus communis, an internal sum of senses by which the complex configurations of objects such as architectural culinary and alchemic products can really make sense.”

The power of imagination, or so to speak, image-making, puts architectural and landscape drawing in high status. Drawings introduce to us spaces that do not exist, spaces that can potentially expand our limits of understanding of built environments.

The drawing is also a tool that fosters imagination. It is the experiment of the drawing that triggers the imaginative abilities of a designer. HOOD (Trieb, 2008) believes that drawing pulls out the imagination. This is the same process that HUMPHRY REPTON experienced in making his drawings; he first observed and then imagined new emerging possibilities for improvements. In executing landscape drawings, one attempt to make his/her imagination as tangible as possible—in other words, it is an effort to bring understanding from a tacit world to a more explicit status. Such an effort is essentially a scholarly practice made possible by drawing.

FRASCARI (personal communications) tells us that a true imaginative drawing is not about what the building will be but is about what the building could be. Therefore, the power of imaginative landscape visualization resides in suggesting what the future landscape could be. This means that the drawing should not be limited to a one-to-one representation of a future place, rather it should go beyond it and create a rich visual narrative. This offers a fertile space between the visualized landscape and the observer to explore other possibilities, other invisibles to be realized. In this sense, the visual appearance of the drawn object or place does not necessarily lead to a Janus-like correspondence to the actual space. One’s sensual and imaginative understanding of a space can result in the ability to “construe” a new place that holds some knowledge about it.

Repton’s drawings could be considered as emerging examples of imaginative drawings. His use of structures (e.g. buildings, bridges) that belonged to other temporal or geographical periods made his improvement proposals indications of a level of imaginatively thinking about future landscapes, inviting his clients to imaginatively inhabit his drawings. Introducing those structures would add an extra layer of information into the visualized landscape that needed a level of imaginative engagement in order to read the modified landscape relevant to some imaginary buildings. Use of schematic buildings (often times with no architectural details or references) “collaged” into the drawing, made Renton’s drawing less transparent in an immediate view, and thereby, held imaginative dimensions.

1 (FRASCARI, 2008, personal blog: http://marcozibaldone.blogspot.com)
Digital media, however, could be a double-edged sword. On the one hand, the accuracy of modeling and almost infinite resources for rendering a scene almost identical to the reality, makes the visualization so transparent that leaves no place for the viewer to see “other” possibilities within the image. On the other hand, the same set of media could be used in a way that would provide such fertile space of interpretation. Additionally, digital modeling often times provides a greater mathematical imagination regarding shapes and forms of a proposed space.

3.2 Sensory Visualized | Sensory and Landscape Visualization

*The landscape is primarily a medium that irreducibly rich in sensual and phenomenological terms.*

-JAMES CORNER (2002)

*When a painter, ..., paints a scene, the hand does not attempt to duplicate or mimic what the eye sees or the mind conceives. Intention, perception and the work of the hand do not exist as separate entities. The sole act of painting and its very physicality and materiality is both the means and the end.*

-JUHANI PALLASMAA

Drawing is a corporeal experience. We use our body to make a drawing. While the hand plays a key role, this experience is not merely limited to use of hand. Our eyes keep a close watch of what we draw; our gestures are also a vital element in the creation of the drawing. Drawing then becomes a practice. Drawing, in this sense, is dependent on one’s sensual condition. When we engage in the practice of drawing, we use our body as a tool, which leads us to a corporeal awareness of the drawing. This multimodal experience (i.e. sight, touch, body gestures and movements) brings about awareness about the drawing procedure. It somehow creates an immediate understanding of the drawing action in the “drawer.”

In short, the “drawer” can engage in a lived experience of the “drawing.” This experience not only is an attempt to bridge the separation between the drawing and drawer, but also offers an immediate understanding about the drawing. This understanding is multi-sensual and provides “knowing” about what one draws beyond what the vision captures. This was, in fact, the same experience that Repton undertook while on site. He spent hours and days on sites, observing and drawing landscapes.

In expressing his lived experience of a landscape in his sketches, Repton took his drawings beyond a pictorial representation of the landscape and included sensory experience as well. His careful and slight changes of stream forms are indications of sensitivity to sensory experience of the landscape. This is evident in PALLASMAA’s (2009) outlook: “As I sketch a

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2 Quote from the manuscripts of Juhani Pallasmaa distributed in the School of Architecture + Design, Virginia Tech. on April 2009.
contour of an object, human figure or landscape, I actually touch and feel the surface of the subject of my attention, and unconsciously I sense and internalise its character."

Such an engagement with the landscape is highly sensual. As we walk in the landscape, our "non-visual senses" contribute to our experience. A multi sensual engagement creates a new interpretation of the landscape. The fresh smell of the grass and flowers makes the air a "filled material" for us. Likewise, the smoothness of the flowers enhances our visual understanding of the landscape. Our body becomes a vehicle by which the landscape is experienced and understood more fully. In summary, when our sensual experience of a place becomes an important ingredient of how we understand it, the resulting drawing becomes as visual stimulus through which experience can be revealed. Repton’s drawings at his personal level involved similar experiences of this kind.

A sketch also goes beyond a rigid pictorial depiction of a landscape when it incorporates a sequence of personal experiences with that scene. A sketch could invite the viewer to recall his/her (corporeal) memory of an experience with the place and also to imagine the before and after sequences as Pallasmaa (2009) reminds us: “A sketch is in fact a temporal image, a piece of cinematic action recorded as a graphic image.”

With the advent of digital representation, however, changes and shifts happened in the process of executing visual representations. The first and more obvious one was the relationship between human body and the medium, the image. This relationship is now mediated thorough digits and binary systems. The landscape architect using digital software works in the isolation of the office and does not spend the same amount of time exploring the landscape. Advanced technologies such as GIS, simulation software, … provide a “virtual landscape” taking us through our computer screens to the landscape scenes. These virtual spaces provide no established scalar relationship between the designer’s body and the virtual landscape. The digital model with no scale does not allow the user to establish a sense of scale between an imagined projected “self” into the drawing and the space. On the one hand, the disembodied process of executing the digital drawing and disengagement from the landscape results in visual representations that, sometimes, become less multisensory.

On the other hand, the ability to visualize the landscape in animation allows us to virtually walk through the landscape and related ourselves to the future landscape.

Hand made drawings of Repton brought him a high level of awareness and unity with the landscape, an experience that is hard to achieve when making digital visualizations. Residing at the heart of this experience is embodied experience; both being in the landscape while drawing and the process of drawing itself. In digital representation, the visualization process is reduced to limited use of hand touching keyboard and mouse, and of course in an office space often apart from the site. An animated landscape, by virtue of digital media, however is a unique experience offered to the landscape architect to virtually walk on site and experience it in a lively manner. This elevates another level of corporeal engagement

3 Ibid.
4 Ibid.
and triggers sensory stimulations. As RAHIM (2000) indicates that the designers “are now arguing for contemporary processes that are as dynamic and fluid as the way we live and think,” the possibility of walking in and manipulating digital models brings a new opportunity of involvement of landscape visualization with the reality of the landscape.

4 Concluding Remarks, A Pedagogical Overlook

4.1 Word and Image Narrative

*I deliver my opinions in writing, that they might not be misconceived or misinterpreted.*

-Humphry Repton (KNIGHT 1794)

HUMPHRY REPTON’S sketches are accompanied by his intense writings describing his intentions regarding improving landscapes. This simply indicates the necessity of a complementary verbal language accompanying his visual artifacts to clarify his intentions and thoughts. While he sometimes received criticism with regards to the inaccuracy of his sketches, compared to use of state plans, he insisted that his drawings was “meant to elucidate rather than ornament.” (DANIELS 1994, from Red Book for Woodall, private collection). In fact, majority of his improvements were based on his critical observations of the landscape and drawing merely helped him to depict those decisions in a visual language. His proposals to manipulate landforms, for instance, are obvious examples of his calculations of slopes and landforms, a matter belonging to the realm of calculus and intellect.

Digital visualizations, however, as commonly practiced often concentrate on producing a final image or illustration of the space. Lack of a verbal language accompanying the visual narrative often results in a reduced visual connection to the proposed landscape. It seems that use of mix-media and multi-layered imagery would be a way to enrich digital representations to a fertile narrative communicating through both verbal and visual.

4.2 From Picturesque to Construct

*Landscape gardening combined the “united power of the landscape painter and practical gardening”*

-Humphry Repton (KNIGHT 1794)

“In the late eighteenth century, watercolor in England was becoming more highly esteemed, and inextricably liked to the rising taste for the English landscape” (DANIELS 1994). It was also at the same period that the idea of picturesque in the landscape was highly regarded. Humphry Repton’s before and after watercolor drawings belong to the same movement and demonstrated a great success in integrating painting and practice of gardening, also portraying the picturesque. They also became effective tools of communication between the designer and clients. Now, over two centuries later, digital representations are increasingly embraced in the community. It seems that both traditions share some fundamental notions;
they both make visible the invisible in the sense they represent future landscapes in a world of reality. They also both involve and generate critical understandings the proposed landscape, which reveals that the process of visualization involves inquiry. In other words, they both dwell in the realm of visual/design scholarship.

There are, however, differences between digital representation and (on site) hand-drawn perspectives, which distinguishes these two representational traditions. One should be reminded that Repton’s intervention proposals were minor changes in landscapes in terms of introducing new structures or geometric forms to the landscape. He mainly dealt with large-scale landscapes and his improvements while encompassing a wider range of issues, concentrated on the final visual appearance of the landscape. Digital media, privileged by a wide range of software and targeting different aspects of landscape design/simulation, potentially goes beyond visual aspects. Contemporary landscape architecture experiences a higher level of complexity. Our landscapes are no longer in vast natural settings seeking the landscape designer to reveal the picturesque. Rather, they are multi-faceted environments manifested in built-form. In fact, landscapes today represent socio-cultural, (bio)ecological, and tectonic constructs all at once. Digital culture seems to be a timely vehicle to address this complexity in visual representations.

4.3 The Scene and the Screen

Humphry Repton represents a long-standing tradition that have been adopted by architects and landscape architects; that is to engage in the lived-experience with the landscape and gain a phenomenological understanding of the site. Landscape for Repton, is a medium, a phenomenon that has materiality and imaginary aspects. This would be different in the case of digital thinking: digital media requires the person to engage the landscape in a mathematical manner as one develops a landscape model. This is a less bodily engagement with the landscape and the space becomes an intellectual “construct” rather than a sensory “phenomenon.” Viewing the scene in the landscape medium, resulted in making eye viewed perspectives for Humphry Repton. Today we craft digital landscapes on the screen that involve high level of abstract, and conceptual thinking.

It would not be far to say the scene drawings represent “bodily eye” and screen imageries represent “intellectual eye” of the landscape architecture. The true sight is achieved through integration of both the scene and screen experiences, of course.

5 References


