FESTINA LENTE AND THE DIGITAL WORLD

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Abstract. In this paper, I would like to explore a comparison of the issues of quickness and *festina lente* as metaphoric or analogous for the computer and its use. Computers in the twenty first century are a vital part of architecture whether used for conception or realization. We as architects and educators must continually question their use in the design process and their appropriateness for visualization. We can know and understand more about the role of computers in our discipline, by seeing them in relation to ideas of quickness and *festina lente*. Italo Calvino in Six Memos for the Next Millennium defines quickness as having several qualities, the most important being economy of expression, time as relative, swift reasoning and consciousness. This involves quickness as being both 'intelligent and witty,' a matter of physical speed versus speed of the mind.

The dichotomy of swiftness and slowness may help us question how these two elements are not necessarily adverse but rather by being understood together, they may help us better appreciate the strengths of the computer in architecture.

In this paper, I would like to explore connections between issues of quickness and *festina lente* as metaphoric or analogous in the use of the computer. Computers in the twenty first century are an important mechanism for defining as part of the architectural process, whether used for conception or realization. We might know and understand more about the role of computers in the design process by seeing them in relation to ideas of quickness and *festina lente*.

Festina Lente has ancient origins; literally meaning hurry slowly, it concerns contradiction, as each term negates the other. Erasmus used the adage in his treatise *Adagia*, citing an expression from Aristophanes.
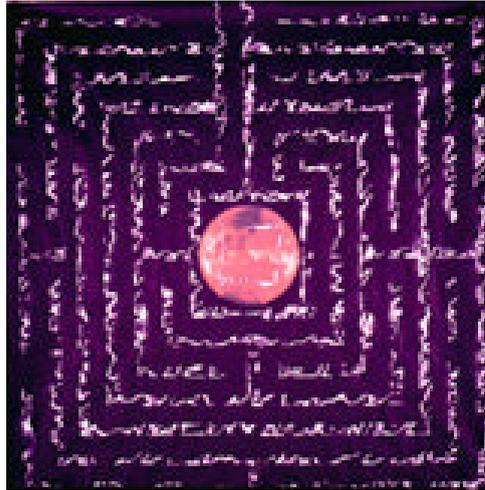
Figure 1. Representation of the myth of Pandora

Octavius Caesar used the term and emperor Titus employed an icon of an anchor and a dolphin to express this seeming dichotomy. For him this motto conveyed the solidness/delay of the anchor and the swiftness/speed of the dolphin. Although choosing symbols from the sea may be less a contradiction than other opposite elements, these two present a contrasting dualism. Thomas Greene (1982) in <u>Mimesis: From Mirror to Method</u> explains how this adage was prevalent in the Roman Period. 'Make haste slowly' or 'always hasten slowly,' meant several things. It was interpreted as "it would be better to wait a little before tackling a matter; when a decision has been reached, then swift action can be taken," "the passions of the mind should be reined in by reason" or "precipitate action should be avoided in everything." (Greene, 1982) When considering this term, questions may arise as to things that are inherently dual or have conflicting characteristics. We are reminded of the two faces of the Roman deity Janus who sees in opposite directions. With Janus, the god of entrances and beginnings, viewing both inside and outside and the ideas of threshold become more poignant. Having two sides gives us multi-dimensional views and thus a more comprehensive approach. It is about proceeding followed by checking, action and then contemplation. Italo Calvino (1988) in his

book entitled Six Memos for the Next Millennium, uses *festina lente* as a method to write about the concept of quickness. He uses concepts of narrative time and explains how quickness depends on succinctness and the economy of motion and idea. Calvino also makes the case that wit, swift reasoning and intelligence all contain both a physical speed and the speed of mind.

Festina lente when applied to the digital world, allows us to question certain issues inherent in our relationships with our computers and the phenomenon of the World Wide Web. It is in this context that quickness pertaining to the contradictions of the media surfaces with new importance. Inherent in the emerging technologies of the computer are issues that could enhance an understanding of architecture such as spontaneity and serendipity, precise and imprecise and the aspects of quickening that indicate life. It is these and other concepts implying contradiction in architecture's various relationships to the computer, which are the focus of this discussion.

Although 'hurry slowly' may be perceived as an apparent contradiction, it is possible that these two dichotomous concepts can actually co-exist and inform each other. *Festina lente* is about contradiction and our architectural relationships with the computer are about contradiction also. We are all familiar with the ever-increasing speed of our computers and astounded by their power. This is partially because of the magic they hold for us. Our ability to comprehend the technology is beyond most of us. The technology we actually use seems fast although the programming may have been a slow and precise process of development. We purchase this technology, and through an act of separation, may be the technicians rather than taking the role of technologist. The computer technology of the eighties (1980's) was a technology of learning "C" language; by contrast, the user-friendly software of today keeps us from realizing the development phase. Here the contradiction of *festina lente* speaks of a quickness of application and a slowness of development. Likewise we all are familiar with the statement that the computer makes drafting faster. This is primarily because once a CAD detail is entered into the computer, it can be easily and endlessly transferred and reused. Whether the actual drawing is faster may be case for discussion, but the endgame of saving and repeating information does improve the speed of drafting. Calvino writes about the qualities of quickness expressing how there is an aspect of slowness

inherent in the speed and as a chiasm, there is speed inherent in slowness. He conveys an allegorical myth;

> Among Chuang-tzu's many skills, he was an expert draftsman. The king asked him to draw a crab. Chuang-tzu replied that he needed five years, a country house, and twelve servants. Five years later the drawing was still not begun. 'I need another five years,' said Chuang-tzu. The king granted them. At the end of these ten years, Chuang-tzu took up his brush and, in an instant, with a single stroke, he drew a crab, the most perfect crab ever seen.
> (1988)

Speed, quickness is always relative and accompanied by its opposition. It is commonly accepted that computers will constantly become faster, whether they will undergo unique transformation is another question. The fascination with the newest and the best still evokes comparison to my new "rocket ship" machine. Additionally this provokes questions of Zeno's paradoxes, especially Achilles and the tortoise. "The tortoise will always have a lead regardless of how close Achilles gets to the tortoise. Achilles, though he is the faster, will never overtake the tortoise." (Angeles, 1981) Although an absurd scenario, the paradox displays the relativity of these two terms.

Contradiction is also evident in *festina lente*, when considering the scale of architecture in the computer. When designing the building studied in our machines is full scale, but our computer screens are a size manageable to be put on our desks or in our palms. Additionally, we are all aware of the 1's and 0's that make up the images of our representation. The contradiction of the numerical in comparison to graphic representation implies the interpretation necessary for translation. Contradiction helps us perceive in new ways. A while ago, a colleague of mine said it is though questioning the opposite we can understand a concept that is before us. He went on to explain that if we want to learn about gravity we must consider the design of a space station, an environment without gravity. It is the opposition that opens our eyes to the problem at hand. Knowing how to 'read' its powers takes skill in perception.

Computers make our lives easier only if we know their secrets (otherwise they are wires in a box). This knowledge can be compared to a *nonnon*. Geoffrey Harpham (1982) writes in <u>On the Grotesque</u>, that *nonnons* can be described as "… absurd objects, shapeless, pockmarked, mottled, knobby things which, when placed before a distorting mirror become handsome and sensible…. All interpretation disfigures the artifact by rearranging it, taking elements out of their contexts and placing them in a new juxtaposition to one another; but it takes a *nonnon* to enable us to see that distortion." We need to be aware of the secrets, which are sometimes obscured, to decipher the *nonnon* in order to understand it in all its beauty. It is like knowing the "trick" of a magic act; it all makes sense when we know the techniques to view it. The computer is a similar concept, it is possible to make use of its knowledge and skills only if we learn how to manipulate and "control" its abilities. Like the Sorcerer's apprentice, its power can get out of control. It is in the knowing of the "wiring" of the computer and understanding their embodied essence that makes them truly valuable.

I would now like to turn to issues of *festina lente* that involve the contradictions of speed/quickness in the digital realm.

Precise/Imprecise

The computer exhibits qualities of precise and imprecise that allow us to see both the general overview and the detail at the same time. In many cases, the closer we look at something, the more abstract the information. Conversely and subsequently, the further away the item is from our view, the more clear the understanding. The computer gives us tremendous ability to see precise detail, possibly too much detail. As an example Leonardo Da Vinci, in his intense observation, found that objects distant from us have less distinct form. He named this phenomenon, *sfumato*. Leonardo deduced that because he was seeing through so much air, the images in the background were fuzzy. Computer software can provide our renderings with ultimate precision. But we may ask, does the computer account for things in the background and provide the impreciseness that we would view with our eyes? Do these images act too precisely and in the effort to be precise, or 'real' give us indiscriminant definition? The preciseness is an advantage but also may provide an 'unreal' image, when we are trying to be

'real.' A potential contradiction, the technology strengthens our might, possibly more than we can perceive. We are reminded of a Pointillist painting, an artistic experience where the structure of our eyes blurs and mixes the colors. Positioned close to the painting we see many dabs of paint in close proximately, when standing further away we see the mix of colors and do not see the individual dabs. Here we may question the ultimate technology that gives us more pixels, resolution and DPI, far beyond our human ability to comprehend. We may also return to the idea of scale, not too long ago the screens imported from a palette of textures, in various rendering software, never quite fit the scale of the rendering. Additionally, I have heard photographers describe how overly defined shadows appear when captured with a digitalcamera.

Figure 2. Student Competition for a Lighthouse

On the contrary there are many things that are imprecise about the computer. My students have been experimenting with the software program 'sketch-up.' They have found the forms very easy to manipulate and deform. The blocks that they form are reasonably imprecise. In fact they are so simple, the students have trouble translating/imagining them as architecture. It takes very little effort to make simple block shapes but it requires substantial effort to make them more detailed. The impreciseness gives us general form but it is so general that any form may do. We are seduced by the manipulability and it is a challenge to be critical or differentiate between the forms. When the computer envisions everything in full scale, then the simplicity of the building blocks is overwhelming.

The relative positioning of the dimensions of precision constantly contradict each other and allow us to question how we visualize.

Wit, swift reasoning and intelligence - physical speed and speed of mind

The computer may give the impression of accomplishing functions with great speed but this may not necessarily be true. What is relative speed, can the computer come close to the swiftness of human thinking? The quick connections (trans-textual relationships) that come out of nowhere surprise us. They happen during a critique of a student's work or a unique understanding of a difficult concept. We surprise ourselves constantly when we suddenly put things together and seem intelligent. This fast reasoning and wit makes the ideas of network more understandable, as Calvino writes when describing quickness, it is, "… tracing the lightening flashes of the mental circuits that capture and link points distant form each other in space and time." (1988) We are aware of the post- modern ideas of three-dimensional connections that are described as Rhizome. (Deluze and Guattari, 1987) The rhizome can be visualized as the many circuits connecting in space that are three dimensional and multi-layered. The computer (as a facilitator of the internet - web) makes these interactions also. The associations of thoughts lead to the various web sites possible. Acting as a system of free associations the wit is evident. Once told that humor is a sign of intelligence, after much contemplation, I realized it is the connection of the unusual and the absurd, that needs to be fast and make cognitive relationships, for humor to emerge. By virtue of its speed, the computer already has intelligence. How much more wit can the web have than to bring up both *Trojan's column* and *washingtonpost.com* when I type in *column*? If quickness is an aspect of intelligence, artificial intelligence is here in our midst. If we view a chiasm, which states, the speed of wit (intelligence) and the wit (intelligence) of speed, the sheer fact of physical speed indicates intellectual speed. "A swift piece of reasoning is not necessarily better than a long-pondered one. Far from it. But it communicates something special that is derived simply from its very swiftness." (Calvino, 1988)

Economy of Expression

Part of quickness is the economy of motion and idea, and the succinctness of expression. The digital world contains contradictions of economy. A press release from Bell labs talks about this multiplicity of interconnection;

> We are already building the first layer of a mega-network that will cover the entire planet like a skin. As communication continues to become faster, smaller, cheaper and smarter in the next millennium, this skin, fed by a constant stream of information, will grow larger and more useful. That skin will include millions of electronic measuring devices – thermostats, pressure gauges, pollution detectors, cameras, microphones- all monitoring cities, roadways, and the environment. All of these will transmit data directly into the network, just as our skin transmits a constant stream of sensory data to our brain. (De Kerckhove, 2001)

We recognize technology as having time saving, efficiency concerns, but on the other hand, our consumer economy and parallel development by many companies have allowed duplication of technologies that are not necessarily compatible. Conversely the economy of motion is evident in that computers in architecture promise us light sensors to save power and new time saving gadgets. For architecture the paperless office is not a reality, but comprehending the scope of large projects would be nearly impossible with out the organization skills of the computer. Again, learning to control the shortcuts and fast methods of manipulating our digital experiences is the 'trick' of succinctness. The economical size of our palm computers is voided on the other hand by the need to replace them with more current models. The efficiency of our work environments might mean more time to "waste" surfing the Internet.
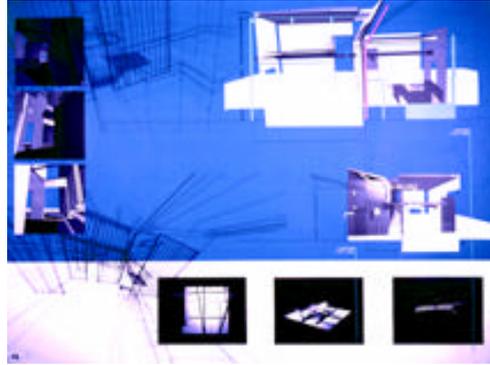
Figure 3. Student Project for an Ideal House

Narrative Time

Narrative time concerns relative speed and economy of expression. Time expressed in stories has little resemblance to 'real' time. It is certainly compressed or elongated depending on the activities and the importance of the activities of the characters. 'Real' time is a much debated and involved subject, but we can speak of our experience of time in relationship to digital time. Digital time should be the same as our perceived time, but the computer knows no time and displays infinite capacity for memory. Capacity of course, depends on our servers and hard drive mega-bites. As Calvino (1988) writes, "time takes no time in a story." Narrative time similar to film editing can be expanded, delayed or recalibrated. Digital time may have more to do with what has been most recently used; my Microsoft word always greets me with my most recent activities. On the contrary, like Rip Van Winkle what appears to be a few hours may in fact represent years. Architects when designing often experience a phenomenon similar to a runner's experience with endorphins, where their bodies completely loose track of time. The absorption of the Internet or the manipulation of digital images encourages this distortion of time perception. The ability to move quickly between images and programs helps confuse this perception. Our fast machines, as compared to earlier computers, seem entirely efficient but once we are immersed in the technologies afforded us, the options seem daunting. As an example of *festina lente* and absorbing

fascination with the digital world expands time while the faster more efficient machines compress it.

Spontaneity and Serendipity
In this paper I have started to establish relationships between physical speed and the speed of mind pertaining to the computer and its capacity of the Internet. Now we must ask, can the computer do the unexpected? We may say no, since it is human controlled and does not have a life of its own. If that is the perceived answer then why is it always surprising us? Could this be because the programmers have put so much possibility into the software, and the hardware, that we cannot imagine its potential? Or we do not give it credit for its power? When used in ways our minds can comprehend computers become full of potential and contain the excitement of the possible. As with pure possibility, the potential allows us to believe anything is possible. Edward Casey (1976) describes pure possibility, "… the 'purity' of imaginative possibilities lies precisely in their independence of the mutually exclusive alternatives of reality and unreality." This aspect of imagination, when provoked by the computer, makes anything hypothetical and all things possible. Consider the concept of free association in comparison to networks that make everything possible. We may ask if our machines can be infused with spontaneity. Again we can personify our machines, giving them the traits of a god or a demi-god at least. The contradiction may lie in our perceptions as contrasted by the technological abilities. Is the computer doing things that spark our mental circuits and make connections? Since we cannot yet experience, but can thoroughly conceive of, artificial intelligence then the computer may embody the magic we project onto it. In the architectural design process, we design with the manipulation of media. Our minds need external recording devices to conceive of images and we must work with representational media being far less expensive than experimenting full scale. The seduction of the computer may be our projection and fascination with the media that might be compared to our fascination with the miniature (as in models).

When designing with the computer, images may take on life. They may seem to come alive magically, through their own power. When we as architects use software such as Form Z, we are manipulating the surrogate objects though the machine. The quick connections formed by the

manipulation of the mouse, or the keyboard, initiate a string of activity that may provide aspects of serendipity we are not accustomed to seeing.

Quickening /Life
In addition to a discussion of the spontaneous qualities of the computer, we are cognizant of the term "quickening." A term not commonly in use, it refers to the first movement of the fetus inside its mother. It is movement that indicates life. As a sign, it anticipates the future child. Seeing the quickening as an analogy to architecture, the first images that come to life anticipate the future building. How do images come to life? We are constantly drawing and rendering our architectural projects, and at some point they are seen enough for us to project the possibilities of their existence. Once we can imagine their form they have been given birth. This life is composed of an activity, an activity that is indicative of our relationship with the computer. The computer allows the inanimate to breath, as a quickening that is inspired with life. In this way we may consider a seed, so tiny and yet so powerful. (Calvino, 1988) The seed has life embodied in it. Although dormant, with the correct nourishment it grows. In this example we might find a comparison to the computer, the circuits are very small and when brought to life become very powerful. Their size gets infinitely smaller and they get continually stronger. We anticipate artificial intelligence, but the life in our computers and the Internet, are the quickening. They are not fully born but surely kicking. Similar to the seed, the computer (the net) is very powerful, it also has a vulnerability of the seed. The quickening expresses life, and questions the potential of life. With the inevitable vulnerability, a computer virus puts us all in doubt but when working these associations make us and our machines come to life. What does this mean for architecture, kinetic architecture or the design process as an analogy for life? Filarete compared a building to a baby and saw the architect as its mother. (1965) He wrote that the mother carries the building through design until it is born, becomes public and can be seen by the client, the father. Maybe this is not a new concept for us because we as architects are constantly engaging the life provoking possibilities of architecture. These buildings certainly come to life as we project onto the design process.

Architectural Recommendations

In conclusion, I would recommend that we as architects take advantage of the potent combination of *festina lente*. We should examine how we can best use swift reasoning balanced by the importance of contemplation. Like the Greek god Hermes and his counterpart the Roman god Mercury, we can use our digital media in the manner of the winged messenger. He was the god of commerce and sculptures of his bust marked boundaries. His winged feet represented lightness and agility, but the traits most compelling for architects are his astuteness and adaptability. The digital machine as an extension of our might needs both to be reined in and allowed to run free. The digital world is upon us and should be contemplated with excitement. As Calvino (1988) writes, "Mercury represents syntony, or participation in the world around us." As architects we should engage the agility of the digital world and be continuously aware of its abilities for quickness contrasted by contemplation and especially regard our relationships with our computers as a mode to entreat the divine messenger.

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