Architecture, Fast and Slow: Spatial and Material Procrastination

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At times when irresistible, all-accelerating technologies prompt normative social influences growing expectations for speediness, architecture is not immune. This paper explores time-space speculations in the ambitious pursuits of idealistically paced architectures. Outcomes present a palette of possibilities for discerning slow architecture as a paradigm. Grounding in the nature of design enticing postponements, the study explores, construes, and curates possibilities to bring in the advantage of slower thinking, sensing, making, and educating. Universal urges for speed are undeniable. Future of cities may also well remain digital with technologies persisting further impacts on limits and possibilities of all disciplines including architecture. What are some possibilities for intentional deceleration in architecture today with contemporary aids? In the pursuit of a slower paradigm, how should temporality be restructured in the framework?

PROCRASTINATING ARCHITECTURE

Technologies have intervened in many domains including tempo of architecture. Digital technologies as major forces speed up how architecture is understood and produced. Despite all such universal urges, the essence of architecture par-excellence can long for positive procrastination. Rem Koolhaas once claimed (Budds 2016),[1] architecture is too slow of an art or profession, too slow for becoming revolutionary or influential. In anticipation, slowness is likewise praised optimistically by others as quality and life philosophy. The claim and optimism together: architecture can appear slower than other fields, but this slowness in itself may not be a bad thing! If so, [how far] should architecture try to compensate for its tempo or, instead, should architecture embrace its slowness and benefit from it? While accepting the inevitabilities of joining forces, moving with technological change and digital zeitgeist of the world in our time, how can architecture resist some of the negative pushes? How could it find in and frame design values out of constructive procrastination? How can those values be filtered and used as design strategies?

In a day and age much inclined to speed, even so, while slowness is still viewed and weighed with degrees of optimism, therein lies possibilities for architecture to formulate further decelerating methods in doings and habits. Recognizing the optimism, a new decelerating paradigm can be possible. In these pursuits, this paper addresses how temporality could be seen and restructured. Grounding in the nature of design enticing postponements, the study explores, construes, and curates possibilities for slow thinking, sensing, making, and educating. While technologies are best known as leading faster to smarter outcomes, this paper would challenge this notion. Could new advents and growths often equated with speediness equally instigate and benefit optimistic procrastination? Probing the life of a project with a beginning and an end, where multitudes of paths are possible in process, the target should be ambitious: that time and space where all matters and spirits can be moving at their most ideal paces.

PACE OF ARCHITECTURE: NORMATIVE | IDEAL

Part of societies' increasing pleas are copious demands for speediness, a measure of essential competency together with productivity and efficiency. A survival skill, nimbleness is indispensable in places of living, education and work. On the one hand, lacking sufficient doses of quickness is seen unpromising, leading agents, not far up, but down achievement ladders. Cultures value speed as important indication of aptitude, where slower, but, positively-nuanced strategies can be viewed negatively. On the other hand, while tendencies for fastness are generally more visible at surface, normative paces are also challenged in favor of slowing down and indulging in time. Slowness too is today praised as a positive quality in many realms beyond practicalities of everyday living as important life philosophy. Being destined to the age of speed, yet, aware of slowness as valued philosophy, architecture too can bend new possibilities. Architecture can explore healthier middle-grounds for time-space connections between normative and idyllic paces.

"Slow" and "architecture" have been fused together. Slow architecture is known as an outgrowth of trendy slow movements, extensively adopted. What started with slow food is now wide-spread and prolific. Beyond food, philosophy and politics, slow manifestos are discussed in varieties, from arts and cinema, to city, space, and architecture. Slow movements challenge hurried cultures globally, aiming at prompting alternative ways of thinking, being in, and interacting within societies (Friedman 2016; Slow Architecture in France 2010; Honoré 2009; O'Brien 2004; and Kundra 1997). Pooled with mindfulness in thought, word, and deed, slow cultures designate decelerating life values, altogether. Slow cultures seek ways to find positive bonds with memory (Kundra 1997),[2] call for electing quality over quantity (Honoré 2009),[3] and invite to use time better (Friedman 2016). Friedman's "Thank-You For Being Late" attests to forces of technology,

Figure 1: Speculating a Manifold with #Start/EndArchitecture and #Fast/SlowArchitecture. The graph on left illustrates discrete components, resulting in a manifold on right to communicate time-space connections in architecture. In the manifold, three initial themes of think, sense, and make would whirl, twist, and pass through one another, expanding and iterating for bringing less known, combinatory dimensions in perspectives. Additional dimensions, for instance, can look into the paces in architectural education, or the paces in which man-made environments rejuvenate or deplete resources.

globalization, and climate change, inviting to overcome stresses by slowing down and using time to reimagine work, politics, and community.[4] In architecture, slow spaces are seen as further textured, inspiring senses and the sense of time (O'Brien's 2004). Slow architecture projects through diverse canons such as endurance, dexterity, sensuality, tactility, materiality, specificity, delight and contentment (p. 19). Slow architecture in France became a stronger manifesto, conceiving architecture as a "machine" to slow down time, as the time slowed down.[5] Beaudouin (1998) states the aims as activist voices, a resistance mechanism against consumption. Altogether with broader slow space philosophies, slow architecture seeks theories for optimum spaces for its pace, speculating right times for generating, experiencing and fabricating architecture.

What if playing [architecture] slow is better or just as good? If taken as premise that slower can be healthier, what better paths can architecture take in design and construction pursuits between project beginnings and ends? What are some of the values that could be sought or granted in the path to incentivize opportunistic pauses? The status-quo pace of architecture can expand if/when mindfully moving in the path while also pondering on such quests for possible interstitial spaces to play positive procrastination. Akin to Slow Gaming as known, what if architecture could be thought of as contemplative as games? How might we formulate some values for that? Like slow gaming, how could architecture too educate its players on the importance of slowing down? While responding to these questions is beyond the scope of this paper, the intention is to prompt thinking about a prospectus of imaginables through Slow Architecture. If architecture inherently lure procrastination, it is beneficial to look for, understand, and apply its temptations to cherish slowness. To narrow intents, the paper starts by identifying three abridged categories of Slow Thinking, Slow Sensing, and Slow Making, leading at the end to reconciling with a fourth: Slow Educating. Despite the narrowed-down triad, elements of the concept of pace become more complex and multidimensional. Therefore, the figure of thought is more akin to a multiverse, much like the extents of a Calabi Yau Manifold (Figure 1).

[#SLOW THINKING] Instants of clarity, the Eureka effect is known in creative/scientific processes. Better ideas are likely to arrive while not hastening, multitasking, and in distraction, but, when mindful, deliberate and stress-free. Sudden clues divulge in contemplating progressions. Akin to falling apple revealing gravity, Aha flashes miraculously end longer processes of indecision and frustration. Elusive moments are occur while in random chores, soaking in tub, improvising music, swinging a hammock, knitting, or walking pathlessly, in "... Road Not Taken (Frost 2001)."[6] Aha qualities studied as subject matters by neuroscientists and psychologists focus on relations of victorious moments to human brain functions.[7] In application, such insights guiding creativity are rigorously sought after in architectural design. Despite general perceptions of Ahas' seemingly quick acquisitions at single moments, however, longer periods of incubation are always required behind the visible, when minds are lingering, working diligently in unhurried processes.

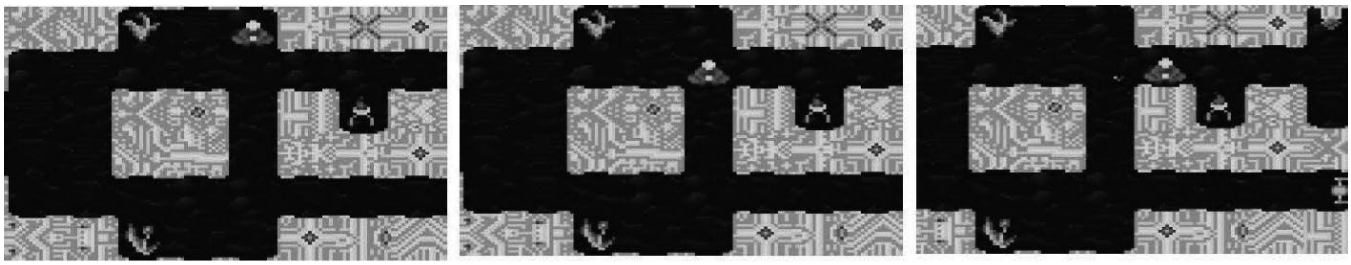
Overall, two popular views exist simultaneously in debates on best spaces for innovation. One group links unexpected

Figure 2: Top Row: Exterior volumes wave to slowdown space in time in Truchtersheim's School of Music and Mediatheque by Emmanuelle and Laurent Beaudouin Architects. Courtesy of Beaudouin Architects. Bottom Row: Slow living concepts in house design by Cyril Lancelin Architect. Green Chapel in Normandy (left), House Cylinder in Lyon (middle), and Installation Pyramid (right). Courtesy of Town and Concrete.

discoveries with matters of chance, myth and alchemy: ideas out of thin air resulting from vast cognitive leaps. A second, however, challenges the first, delinking spaces of innovation from occurrences of lone masterminds. The second group considers Eureka effects not as simple results of instantaneous moments, but as what that have had antecedents in time with many preceding baby steps. For the second, better outcomes are seen as results of a series of smaller steps building up in longer spans with slower increments, innate small acts leading up to larger fulfillments. Inventive thinking is seen slow and incremental. Novelty succeeds via collaboration in a networked process known as "slow hunches" where "adjacent possible" ideas intersect (Johnson 2011).[8] Constant slowdowns plus stepping backs are essential for getting into right frames of mind, building up sudden moments of clarity.

[#SLOW SENSING] A way architecture can empower is by enabling slower experiences as alternative time-space connections. Slow sensing as timed composition can result in rich spatial experiences. Fusing time, space, and substance as such, architecture can create sublime spatial conditions under which designs can at once interlock aesthetics, functions, and human experience. Users' timespan desires to stay longer when going through a particular space slower is a direct influence of the extents of the presence of architecture's sensory qualities. Under right conditions, time can slow down, expanding the concept known as mental time, creating instances for memories to wonder and senses to indulge. Slower sensing engaging mental time brings sensory and tactile contacts with the material environment. It can be seen as a remedy to fidgety and instantaneous pass-throughs in spaces depriving of sensorial contacts. Architecture as timed composition alludes to humanistic elements enriching experience. Not prompted by speed, slow sensing can perceive an architecture that could be experienced like nature.[9] Slow sensing benefits from discussions on memory, senses, and material. Neuroscientific research have explored human cognition and its impacts on perception in space. Factors such as scale, recurrence, repetition, and relapse are studied dimensions correlating with built forms.

What is inside time, but no sides? Time is borderless infinitely with no exterior, limit, contemplation outside itself, periphery or end: an eternal return and an endless inside (Beaudouin 2010). Architecture as time slowed down is a compassionate machine to reduce the pace of contemporary life, moving too fast, masked by excessive consumption (p. 14).[10] By strong



draws on sensory experiences, for example, observing the passage of light or waving effects created by wind, time is perceived in multiple dimensions similar to space. The boundary between human perception and reality is through senses. A task of architecture then is to entertain senses. Noticing the presence of time when experiencing space is a gradual cognitive process closely engaging senses. Capturing "atmospheres," as framed by Pallasmaa (2012) [11] and Zumthor (2006), [12] is a way, aimed at motivating more user time spent in/with architecture. Slow architecture deliberations are more popular in France (Yoshida, 2010), integrated by architects like Lauren and Emmanuelle Beaudouin, and Cyril Lancelin (Figures 2).

Additional to sensory dimensions in experience of architecture as timed composition is the expansion of mental time. Spaces with enhanced spatial qualities slow users down and enrich their experiences while drawing on mental time capacities. Mind wondering in space, for instance, is an element of how architecture is perceived (Arzy, Collette, Lonta, Fornari, and Blanke 2009).[13] Mental time as key component of mind wandering links to memory as the reconstruction of past and future events. Use of mind-wandering capacities can permeate in design as means for generating deeper experiences. Timing architecturally is also relative, upholding that time can be stretched or shortened by means of the spatial engagement of mental time. Journeys in space expand or shorten the time based on encountered experiences. For instance, time enjoyed in nature may pass faster than if not pleasured in a hospital waiting room.[14] Mental time travels involve memory (Corballis 2013).[15] Minds stroll lengthier where users participating in the spatial experience are left somewhat uninterrupted. Human mind is presented with bountiful abilities for escaping the present time, rambling into the past, future, or minds of others. With this, a sole focus on the physicality of architecture, or immediate environmental dimensions could be expanded in favor of engaging such basic element of mind wandering as memory. Place cells as brain elements and psychoanalytical bases for memory engagement in humans and some animals are enabling cognitive map formations (O'Keefe and Nadal 1978). Place cells are responsible for encoding locations while activated other times via trajectories corresponding to earlier locations.[16] In formerly-experienced environments, past trajectories might be previously-taken paths or their total reverses, or imagined future ones that can come

Figure 3: Top Row: Michael Brough's (2013) game Vesper.3 is known as an annoying exercise in patience, experimenting with slowness across time. A player take one step each day in a negotiable labyrinth, taking a full season to finish a game. Ian Bogost's (2010) game "A Slow Year" is another example, four games, one for each season, is just about the experience of observing things. Image Credit: George Dunkley, Courtesy of Tumblr. Bottom: Slow sunset scene in Minecraft. Image Courtesy of Tim Marsh (2016).

to mind (Corballis 2013).[17] Design intentions integrating contemplative rhythms can decelerate the space sensing process, a quality picked up by videogame designers. Game designers apply tactics to manipulate time and space (Marsh 2016). Slow gaming has joined slow culture movements and granted more value to pauses, promoting playing slow to be better or as good. Figure 3.[18]

Added to senses and mental time are the choices for and ways of arranging materials. This aspect is key in understanding architecture as timed composition. Material use closely relates #Slow Sensing to #Slow Making. Also sensory-dependent, such notions as the perceptibility and tactility of substance, along with olfactory qualities, can find robust bonds with temporality. Material capabilities in being seen, occasionally smelled, felt or touched can make the essential tie connecting #sensing with #making. Certain material choices, for instance, in their formation and arrangement can confound the eyes, eventually, forcing them into searching longer by looking at multiple directions. Such possibilities are found in applications from the repetitiveness, versatility, and boundless options in a material such as brick.

Figure 4: Both focused and peripheral sights at play, undulated brick modules push their presence in the everyday experiences of contemporary Iranian architecture. Having learned from longstanding history and backgrounds in simplified complex geometries in traditional Iranian architecture, randomized pattern change the pace of user experiences. Images: Woof Shadow (Left), Courtesy of Chatra Design, and Termeh Office (Right), Courtesy of Mehdizadeh Architects. Another built example is The House of 40 Knots by Habibeh Madjdabadi and Alireza Mashhadimirza.

More unconventional uses could be three-dimensionally-laid, decoded brick modules with randomized pixilation and undulated patterns (Figure 4). 3D patterns may help elongate the time human eyes may desire to interact with the elements of space in lengthier pauses. The materiality in this case can slow down experience by involving both focus and peripheral vision capacities of the eyes. Designers' understating and applications of complexities like engaging both visions can inform the making of slow spaces.

[#SLOW MAKING] Material understandings and slow making are tightly connected. How materiality is considered, contemplated and created provide an immaculate platform for exploring slow architecture. Objects of architecture in incubation can engage substance in an optimistically-delaying mindset. The Bruder Klaus Chapel, for example, designed with exquisiteness and atmosphere by Atelier Zumthor, is where construction has pushed a deliberate reliance on material performance, a strategically-procrastinating creation process.[19] Material-driven routes as such can add much demonstrative, phenomenological, and rich-in-sensory-quality textures. Material as a primary block and platform in slow making can allow sophisticated linking to grasps on multiple other ways of substance appearance in architecture. The material angle can offer two distinct paths to slow making: one of discrete compartmentalized parts and assemblies, and the other of material growth, degradation, or recycling. The second route resonates with what is found in biological beings and natural processes, as well as trends in living architecture. Natural systems in general embody slower growth and gradual progression sensibilities, contrasted with artificial part assemblies.

The paces of becoming and the kinds of making done in the natural world is composed differently in non-manmade structures. Unlike manmade objects, natural beings are outcomes of inherently nonlinear systems wherein changes in outputs are not always proportional to changes of inputs. Biological organisms manifest self-organized systems and spontaneous orders, randomness with orderly chaos, in their developments. In addition, non-humans like mammals, bugs, and insects build architectures in different rhythms. Self-paced without blueprints, the slower, iterative paths engage elongated processes of trial-and-error with iterative editing. Birds in particular are brilliant mammals whose design, engineering, and building may inform unique directions for slow making in architecture.

Avian architecture (Goodfellow 2011) represents a wide variety of nest typologies. Humans can think twice if assumed as great builders; "the most consistently excellent builders among the vertebrate animals are birds." Despite details and intricacy, nests are built for utilitarian purposes: as containers for eggs for short time periods. Knowing birds are not building nests as permanent homes can challenge reasons behind cumbersome trial-and-error efforts (p. 6).[20] Another of those miniature genius design-builders are termites. Incredibly collaborative, collective activities of these social insects result in complex mound architecture formations.[21] For these non-humans, tools of making are low key, typically, only parts of their bodies. Their bodily-dedicated, slower ways of making can inscribe new complexities in the manifold of slow architecture.

LESSONS FOR EDUCATION

Considering slowness as an essence permeates opportunistic choices in framing positive procrastination as a valuable tenet of architecture. The originally preconceived, triad categorizations have helped organize views and comprehend patterns. With further clarifications came the acknowledgement

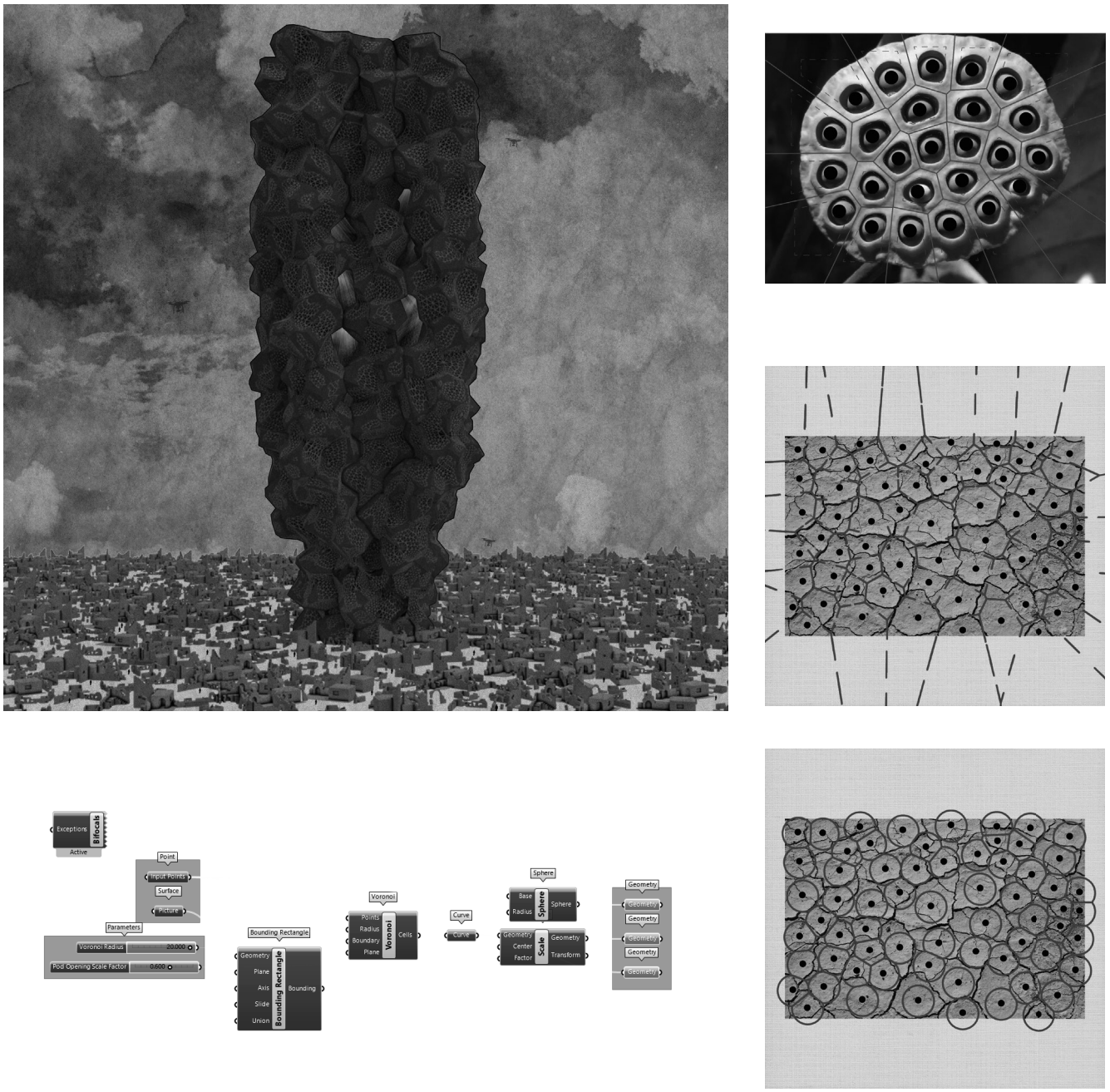


Figure 5: Undergraduate research can provide an extra-curricular venue outside studio to explore slower design processes. Examples here are nature-inspired mathematical algorithms and complexified geometries as research iterations to find design scenarios. Algorithm samples are created for optimization patterns in Mud Cracks, Giraffe Spots, and Leaf Veins. Forms explored in mud construction are the voronoi pattern in a termite mound replication. Courtesy of undergraduate researcher, Robert William Toot, Senior Architecture Major at BGSU.

of rather manifold compositions, beyond initial compartmentalizations. Having started with thinking, sensing, and making dimensions, the paper wishes to end with a fourth: #Slow Educating. Wisdom in adopting slowness as design philosophy is targeted to win over cleverness with agility. In contemplation, this is resonating with Piano's (2018) affinity with slowness that, for him, is akin to sailing.[22]

[#SLOW EDUCATING] It is thinkable to consider speed-training as an issue and the ideal pace for architectural education as a challenge to face. Architectural education is pressured in many ways, with a few being: to meet requirements of continuously evolving building/construction industries and to cater to needs and diverse career destinations of its graduates. Whether a choice, for better-off elite architectural programs, or necessity, for others on the average, cultivating young minds is at the core. Programs may get caught in

speed-educating while trying to satisfy accreditation check sheet requirements.

While such pressures can remain at increase, the education is also simultaneously challenged by preserving its dignity, long-lived history and diversity of design cultures. The field can be particularly challenged with its intrinsically procrastinating pace, a characteristic inherent that, as Koolhaas put (Budds 2016),[23] is analogous to a slower art and profession, overall, not well in alignments with other fast paces in society. In reality, all such challenges must be faced and their associated learning must be addressed in the course of typical four-year undergraduate degrees or, at maximum and at best, through a complete cycle of a six-year education spans (undergraduate and graduate combined).

How can architectural education respond, educating its apprentices in a better pace without being overwhelmed? How can it educate better that is also slower? Does slower make its apprentices prepared at all for professional practice? What are some ethical implications of a fast education? Are there risks of naivety or shallow understanding? The above questions beyond the aim of the paper are projected as prospective ideas for future enquiries. It is beneficial to reveal some of the challenges of speed education, for discussing advantages and formulating directions for a positively procrastinating architectural education.

ENDNOTES

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