

MATERIAL STUDIES AS THE POSSIBLE CHANNEL TO RE-CONNECT DWELLING AND BUILDING

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ABSTRACT

When discussing Emily Dickinson's sense of dwelling, one cannot help but relate it to Heidegger's proposition of dwelling. While Dickinson emphasizes the possibilities of life, this symposia essentially proposes dwelling in a Heideggerian sense. The relation between both ideas plays an important role in achieving in the realm of the material dwelling equal possibilities in the realm of the mind. Heidegger proposed that "dwelling" is the evidence of human existence, and that "building is really dwelling" through which it is humanity's very act of being. While dwelling's fundamental character is to spare and to preserve, arguing that "dwelling in (im)possibilities" truly asks a fundamental question of a building as both an object and an act, materially constructed and accomplished in the present time. It asks whether it is (im)possible that the act of building and the building itself still retain the character and role of preserving the primal fourfold of humanity's existence through the materiality of a constructed building. This paper proposes a channel of possibilities to answer these questions through material studies with insights and knowledge in the realm of (building) construction, since it is through materials that a building is made possible to come into existence as a signifier of humankind. Material studies provide the possibilities for delivering the estranged conceptual dwelling into communion with the physical realities of modern humanity, reuniting it to the building.

Keywords: Building in the present; Communion of dwelling and building; Dickinson's dwelling; Heidegger's dwelling; Material studies

1. INTRODUCTION

Emily Dickinson's act of dwelling implies an attitude of positivity and existential freedom of being human on earth. Having the sky as one's roof, Dickinson's human being also lives among her fellow human being. Freedom of existence manifests itself not only in terms of physical freedom but also in freedom of thought, opinion, and preconception.

The poem also hints, through the determined attempt of opening out one's "narrow hands," the necessary physical "work" or "toil" needed to deliver a meaningful existence. Through work and toil, one can arrive at an appreciation of the fruit of one's earthly efforts, all done within the boundary of rhythmic earthly cycles; work and toil that leads to the notion that all is good and well on earth. The Dickinsonian sense of existence resonates back into Martin Heidegger's notion of dwelling decades later. Presented in a post-war forum of architects and developers, Heidegger's "Building Dwelling Thinking" strikes a directive message regarding humanity's

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existence through the act of dwelling (Harries, 2000).

Heidegger defines dwelling as the act of sparing, preserving, caring, and saving the earth. One can interpret “earth” as both the immediate surrounding environment in which one lives and the actual ecosystem of the planet Earth. Dwelling itself is manifested through the act of building, not only of building metaphorically, but the actual building in terms of building construction and all of its materiality. One can relate it to a notion of how a process of construction is carried out in a caring manner. This parallels the interpretation of “work” in Dickinson’s poem in which one is awakened, invited, and encouraged to the reality, necessity, and the beauty of work. Through the work of one’s own hands, one can be awoken to an awareness of one’s worldly existence.

In the Heideggerian sense, letting dwell by way of constructive building means to produce, bring something forth, to make something appear in a “technical” way. It leads one’s understanding towards the “tectonics of architecture,” unseparated from all of its material realities. Going beyond the Black Forest farmhouse as an example, Heidegger states that it “in no way means that we should or could go back to building such houses; rather, it illustrates by a dwelling that has been how it was able to build” (Heidegger, 1971).

Heidegger himself proposes that humanity keep the question open on what is expected of the act of dwelling and building. In what he calls “*the real plight of dwelling*,” he emphasizes that the plight is never about the quantity of required buildings or residential units. It is about the redefinition of dwelling itself.

The post-World War II globe has seen the industrialization and commodification of virtually every aspect of earthly human life. Jobs are defined into more and more specialized professions, with machines (both hardware and software) gradually replacing manual labor (Mason, 2015). The proliferation of digital information helps to spread the aspiration towards the progress achieved in the developed West across cultures and borders.

The same aspiration also spreads the symptoms of problems beyond the physical. The specialization through work and the consumer lifestyle puts modern individuals into social compartments (Atsushi, 2014) and arguably separates them from the (material) reality of their immediate daily surroundings. Thus also, the act of (materializing a) building is now a term for work dedicated exclusively to specialists such as builders, developers, engineers, and perhaps architects, who resemble only a small portion of human society.

Looking from this perspective, Heidegger’s urge to ever redefine the act of dwelling is even more contextual for the professions of the built environment. Hence this paper seeks to re-contextualize the contemporary dwelling in the field of the built environment and its materiality. What possibilities can a reading in such phenomena offer to re-establish the material connections of dwelling-building without having to deny the contemporary nature of cultural and technological advances? And, how can studies of (architectural) materials enhance that establishment process? Furthermore, what are the required criteria for such material studies to actually assist the said establishment?

2. METHODOLOGY

This paper employs a qualitative method through a phenomenological approach. Moving into the results of the analytical parts, several phenomenological topics are examined. The phenomenological exploration begins with the interpretation of Emily Dickinson’s poem on dwelling and of opening up to future possibilities (Ireland, 2014). The reading of Dickinson’s is then paralleled with readings of Heidegger’s on “to dwell” and “dwelling” (Heidegger, 1971) to arrive at a common understanding of both perspectives.

The second is the perspective of architectural theoretical analysis from a phenomenological point of view based on Harries and Frampton. The third is the perspective of the phenomena of the tectonic within architectural practice regarding material and dwelling referring to Shelden and Brownwell. In the fourth, the analysis goes through the perspectives of contemporary social and economic phenomena on material and dwelling based on Allwood, Mason and Atsushi. The fifth is the analytical part of the discussion, in which the three perspectives contribute to a discourse on the contemporary dwelling's disconnectedness, humanity's atomized existence, and Dickinson's contribution to the possibility of material studies as an answer to the discovered problem(s).

3. RESULTS AND DISCUSSION

3.1. Interpreting Dickinson's Poem and the Phenomenology of Dwelling, Building, and the Tectonics of Architecture

Ireland proposes an optimistic interpretation of the future from Emily Dickinson's poem (Ireland, 2014). She proposes that one can sense Dickinson's constructive viewpoint on the world. The poem asks the reader to be open towards various opportunities for encounters with things beyond accepted norms of the day. A less restrained imagination is asked to be the motivation for whatever operation is at play.

The understanding of dwelling (and building) evolves parallel to the periods of human progression since the time of Heidegger's post-war lecture. In the same direction as Dickinson's, his proposal of a continuous redefinition of the verb "to dwell" and "letting dwell" urges one to keep exploring and expecting new understandings of the word. Henceforth, this discussion will be committed to such openness towards opportunities, albeit derived from several critical perspectives of "impossibilities."

In his earlier essay regarding the tectonics of architecture, Frampton states the case for emphasizing the way elements are joined in architecture and the built environment as a symbolic form of the materialization of human existence in the world (Frampton, 1996). Referring to Fascari and Gregotti, he suggests that humanity's existence on earth dictates how the fulfillment of needs and expectations is conducted. In the case for buildings and architecture, it is gravity, the climate and elements, daily and seasonal cycles, and other earthly physical constraints that are the determining factors within the process of their delivery.

Though responses towards the said constraints vary across communities, geographic locations, and time frames, those factors remain relatively unchanged. It is precisely the various responses that develop the different identities among geo-specific cultures. Each done through meaningful symbolic tangibles and intangibles achieved first from the act of building and constructing, i.e. the joining of elements and materials to produce habitations and other cultural artifacts. Afterward, the second is achieved from the act of taking care and the nurturing of the built environment, thus completing relation of "to build" and "to dwell."

Frampton also hints, and then years later confirmed (Frampton, 2005), the tendency of reducing such complex relations symbolized through the tectonics of architecture into a mere scenographic or commodified object of the built environment. Contemporary architecture attempts to somewhat detach itself from the earthly reality of the planet Earth, submitting itself into the service of consumption and marketing.

In a similar tone, Harries also poses a cautionary message regarding the current distancing of architecture from the Heideggerian act of dwelling. Acknowledging the reality of the finite earth and humanity's "ineliminable dependence" on the planet's biosphere is paramount within the process of bringing forth architecture as human habitation through building and dwelling

(Harries, 2000). One can translate his caution as a directive suggestion for humanity to endeavor to go beyond the usual contemporary practice as the all-consuming species.

In this discussion regarding the tectonics of architecture and the contemporary condition, what can be concluded as the departure from the tectonic's critical state? Arguably, there is the challenge of reviving an existential awareness of humanity's existence on a finite earth. As a biological creature, human beings experience their immediate environment generally through bodily sensory perceptions. Hence, both physical and emotional experiences that are derived from the consumption of architecture (and its materiality) are the result of perceived sensorial stimulation. It is the consuming of (architectural) material that partially, but significantly, builds memories of existence in place and time.

3.2. Practical Phenomena for Materials and Tectonics from the Perspective of Architectural Work and Practice

The architectural practice of today is one that is profoundly influenced by technological advancements, the digital everything, and ease of access to digital information (Shelden, 2006). Interconnected, "real-time," or collaborative long-distance design and planning work are the best ways to describe the norm of the contemporary design workspace and relationships between practitioners. Digital virtual spaces and engineering simulations proliferate as the preferred tools for work and communication among designers and clients, engineers, builders, and developers, all of whom are perceived mainly through the visual perception of anyone who engages in the work.

Having the preferred impact of achieving greater efficiency, it also easily lets an oversimplified understanding of architecture to become visualisation, scenography, and perception design, all done in the service of consumerism (Kelley, 2005). Efficiency in architectural design also means an easier way to deliver the visual media through which the consumption of architectural ideas occurs. Hence, digital information somewhat allows the conditions for an easier consumption of architecture, now distanced away from the act of building and dwelling.

Still limited by technology, one key factor to be considered eventually is that such consumption cannot end at the consumption of architectural visual representations only (renderings, virtual buildings and spaces). The "perception design" must be transformed into a physical reality to give it its true life (Shelden, 2006; Brownwell, 2012). Again, this exposes the design object to the realities of earthly existence: gravity, climate, and the elements, in short, earthly materiality.

Separately, Brownwell suggests that materiality (physical matters and the knowledge of them) play a key role in architectural progress precisely because even within the contemporary setting of extensive, ubiquitous digital information, architecture still cannot escape its manifestation into built physical entities, constructed through the joining of various elements and materials. Acknowledging material physical and perceptive properties opens up new opportunities for understanding within the context of the built environment. One can argue that in architectural materiality lies a potential way to close the gap between the current practice of architectural design and the existential understanding in the act of building and dwelling.

3.3. Social and Economic Phenomena of Work and Specialization in an Information Society

The contemporary situation of architecture commodification puts architectural "works" within the terms set by the prevalent capitalistic economy. Almost all aspects of life are subjected to the norms of consumption, from those of basic needs to the sophisticated consumption of the perceived images of the social labels attached to physical saleable objects. As Kelley argues, architecture finally is a realm of work for creating and shaping images (Kelley, 2005). The perception of any value is fabricated through the images pasted onto objects of consumption.

Through consumption and consumerism, capitalism puts a distance between the source of a material and the society that consumes material goods or services as the fulfillment of work's reward. Regarding this condition, Harries suspects a loss of humanity among contemporary individuals since dwelling as an existence perceived as belonging to geo-specific built artefacts is now uprooted from its original meaning (Harries, 2000). Regarding work, Mason describes information technology as altering work into a scattered landscape of individuals connected mainly through digital information networks instead of through social cohesion (Mason, 2015).

Work as it is known today exposes humanity to scatteration and the compartmentalisation of individuals through the fragmentation of work, especially in the work of constructing buildings. The act of building is now an accumulation of commodified services whose actors are categorized into several specialized professional categories of architects, designers, specifiers, mechanical and electrical engineers, structural designers, quantity surveyors, masons, plumbers, steel workers, general contractors, finishing applicators, suppliers, property managers, regulators, and others. As well, contemporary human dwellers, namely the consumers of the built artefacts, are now detached from building as an act, process, and material reality.

It is through consumption that the identity of the self is reformed. Referring to Sennet, Mason implies that the contemporary individual can be said to have multiple, various realities, existing parallel with each other, atomized (Mason, 2015). The existence of individuals in the world is now fragmented realities, inundated in information, detached from the placeness of their geo-specific location, their awareness of placeness, and the material realities of their immediate surroundings, "one being a consumer and debt taker rather than worker (Mason, 2015)." This, one may argue, is the contemporary plight of dwelling.

It is also arguable that the proliferation of consumerism through the global capitalist economy leads humanity into dissociation with the Heideggerian "fourfold" of the earth, sky, divinities, and mortals. Dwelling as an act of caring and nurturing of the earth as understood by Heidegger is now reduced into one of modern society's many compartments. It is a mere subculture instead of the what Harries suggests as being "the basic character of human being" that determines mankind's biological and cultural realities (Harries, 2000).

What now appears to be a worldwide environmental crisis is a clear symptom of the modern individual's plight of dwelling. Regarding (physical) materials as the basic substance operated upon through the act of building and constructing, individual consumers are now even further separated from their extraction, rendering them clueless of the exact processes and locations of origin (Allwood et al., 2012). Dwelling now no longer means sparing, preserving, caring, and saving the earth. Work is now purely transactional, an economic exchange of material goods and services done remotely and in isolation, and away from the meaningful origin found in the Dickinsonian term.

Interesting phenomena are noted by Mason and Atsushi, albeit the seemingly grim outlook described above. This somewhat unlikely turn pivots precisely on the same proliferation of digital information technology. The atomized individuals, the "networked individuals," apparently make use of the somewhat non-hierarchic structure of the internet to bring into life a prolific social interaction within the network, internet "peer-to-peer" societies. With just enough longing to have a meaningful connection with other individuals, individuals have started a mode of exchange considered irrelevant by the contemporary capitalist economy: various acts of voluntarism and the sharing of gifts of information, services, and virtually anything else. Its proliferation is based on the simple reason that such actions deliver an unchallenged intangible reality, unmeasured by capital, of being humanly happy.

It is this meaningful happiness that has also been driving socially conscious specialists to share their expertise with those who previously have no access to such services. The emergence and

new recognition of non-profit expertise organizations such as Architecture Sans Frontieres, Doctor Without Borders, Engineering For Change, Creative Commons, Kiva, Architecture For Humanity and others testifies to a rising awareness among individual specialists in search of a more meaningful reality. Information sharing about their work gradually turns into the sharing of actual related services, goods, and materials, which is now made even easier through digital information networks. To sum up, the contemporary situation defines that not only is information the catalyst in delivering a meaningful earthly existence, but eventually, the materiality of the same existence performs an equally powerful part in the production of a meaningful life.

With developing nations aspiring to reach the developed world's material wealth through the same capitalist economy, such paths towards voluntarism and sharing are also going to very likely be created and arguably at a quicker pace. The quest for happiness aside, the non-specialists of the second and third world can now have the potential means of genuinely shaping the physical and material reality of their surroundings, bypassing the top-down approach of the (built-environment) market. Knowledge sharing among lay people about materials, techniques, and their post-construction, even post-occupancy, results can arguably be a key to answer the contemporary plight of dwelling.

3.4. Discussion

The passages above lead to several points of departure for a potential attempt to answer the contemporary plight of dwelling. First, Dickinson's work as a way to connect to the fourfold now emerges as a mode of exchanging products and services. Second, the act of (constructing) building, is disconnected from most members of society through specialization and the compartmenting of works, building and architecture now being a commodity (Frampton, 2005; Kelley, 2005). Third, as such, humankind essentially cannot escape its earthly existence as manifested through the need for enclosure and built environments (Harries, 2000; Shelden, 2006; Brownwell, 2012) made through the joining of materials and components (Frampton, 1996).

From this state, Dickinson's possibility suggests an answer of possibility; that building materials with their sensorial properties could be the potential answer to the contemporary plight of dwelling. The sensorial properties of materials can be considered as tools for promoting an awareness of one's placeness in the world. This argues for elevated attention to sensorial exposure to various material experiences, i.e. the literal experience of how materials are perceived through human senses within the experience of the built environment. Material tactility and audial signature should be proportioned equally against visual considerations.

More importantly than ever, especially with the ever increasing ubiquity of information technology's presence in contemporary human life, sensorial faculties other than sight should receive greater stimuli. This is not to suggest that it could be operated (partly) by compromising the norms of comfort and safety. It suggests that a heightened stimulation of the senses through materials could be a method to invoke primordial emotions towards the raising of said awareness.

It is also through one's digital social existence that the said material experiences can be encouraged. The intangible notions of happiness, peacefulness, and other positive emotional perceptions gained by experiencing places rich with relevant sensorial stimuli can be distributed as free information posted on one's digital "wall." This nexus within this virtual reality will eventually spill over into actual, brick-and-mortar reality as observed by Atsushi (2014) and Mason (2015). It is now easier for an individual to have an online peer group or community of the shared interests, and it is also as easy to move it into an actual, meaningful social gathering for sharing experiences, things, and even gifts or possessions, at (almost) no cost, all in the

name of caring for oneself or one's peers. With equally easy access to supporting information, the argument goes further towards the notion that this can go as far as sharing labor to actually build places of experience.

What has materiality got to do with this? Not only that building physical enclosures still depend heavily on physical building materials, it is now materials that plays a pivotal part in the effort of generating humanly emotional, shareable experiences towards the reintroduction of placeness and then of dwelling and building: the possible answer to the contemporary plight of dwelling. With the ease of sharing and the rise of sharing, a sense of place must be carefully considered. Architects and designers (specialists in the field) cannot only be concerned with the spatial, formal, and scenographic composition of the built environment. To these specialists, knowledge of materials and, critically, their sensorial properties in regards to the possibilities of perceived or generated emotional experiences is paramount.

Paradoxically, information technology will also render free access to this knowledge and whatever knowledge accumulated by specialists will ultimately be accessible to all networked individuals, exactly through the act of sharing. While it may sound threatening to professions, with Dickinsonian optimism, this is actually another opportunity for engagement for architects, designers, builders, and developers. It can be said that by freeing up knowledge, each individual can be a potential quasi-specialist.

The profession should see this as "the forming of peer groups," and that their professional knowledge can be seen first as a somewhat authoritative one, and at the same time, as an ever growing body of knowledge through shared experiences among "group member." This is, arguably, the beginning of the undoing process of compartmentalization and the atomization of work and people, not the least of which is within the scope of the built environment. This is a part of the dawn of a new society in which contemporary capitalist economic terms no longer dominate.

4. CONCLUSION

Dickinson's notion of optimism allows for the possibility for a constructive mode of operation to answer the modern individual's plight of dwelling. As for building and the act of building, to be able to reconnect with dwelling, the actors involved are urged to embrace this new opportunity despite it being unfamiliar. Studies of material properties in terms of their capacity to evoke human (primordial) emotions are the bridge to cross the gap of disconnectedness. The discussion above sets a footing to establish several material criteria to have truly meaningful material studies.

First, studies *should be directed into the exploration of materials that have visual, tactile and/or aural properties, even the sense of smell, that have the capacity to develop sensorial-emotional connections*, through the study of their color, texture, odor, and sound in both raw and final states. The key is to have materials that emit the passable information ingrained in it to fulfill the basic human needs to be happy and belong, and hence the information and the experience of it can be easily shared

Second, preparing it to be used by the quasi-specialist, *the material should be easy to develop, produce, acquire, process, and install and be practical with relative ease of maintenance and routine care. In short, the material should pose a low barrier of entry to adopt.* Low barrier of entry is necessary to allow higher rate of satisfactory results and hence wider reception. Easy but routine maintenance can be considered as a channel for developing a deeper connection with the built environment, hopefully resulting in a stronger sense of belonging. This must be achieved while fulfilling sound structural performance and other safety factors.

Third, *to invoke placeness and localness, while at the same time actually being environmentally responsibly sourced, it is desirable to explore materials that are renewable and /or natural in the truest sense of the word*, both in its raw and finished state. This includes the potential for studies of reclaimable, recyclable, up-cyclable, and locally sourced materials as well as naturally produced and/or grown materials.

Fourth, there is the challenge of having *materials that reflects their belonging to the ever present time*. Not only is this a way for exploration in terms of material types, but also a way of building up both individual and social identity. This means opening up to new and uncharted exploration of growing, extracting, collecting, harvesting, processing, combining, etc. while at the same time complying with the earlier three criteria.

The four main criteria are open for interpretation into more detailed sub-criteria. Through the redefined dwelling and work through the act of building, it is expected that the non-hierarchical nature of networked individuals and society ultimately contributes to an ever reinterpretation of the four.

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