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Ephemeral Crossroads: seven lamps, six years, seven lux-pavilions

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Abstract: Building materials in the modern era have assumed significance in architectural theory which they had not possessed in the past. The change was no doubt due to the multiplicity of materials, newly minted due to the innovative industrial production, which imposed and invited new ways of building. John Ruskin (1819-1900) proved to have a great appreciation for the inherent qualities of building matter, its materiality and innovation by recognising the validity of the honest structure: Truth of the materials or rather honesty in the use of materials. However, the modern era has become the manifestation of the temporal, the momentary, the transitory, the ephemeral, the impermanent and as such this phenomenon is aligned closely to the innovation of materials/materiality within building practices. This paper deals with the manifestation of this modern paradigm in a series of lux architectural pavilions/folly over a period of six years: seven projects paralleling Ruskin’s Seven Lamps of Architecture (1849).

Keywords: Live build projects, Temporary Architecture, Architectural History, Experiential Practice

1. INTRODUCTION

Seven live-build projects, over six years, align and correspond with John Ruskin’s Seven Lamps of Architecture. Ruskin’s book is premised on the sentiment that different values or qualities can be attributed to architecture in which he uses the analogous term “lamps”; Ballantyne discusses it thus:

The outcomes in particular buildings are therefore the result of the weighting given to each of the values – or to continue with Ruskin’s image, they will depend on the brightness with which each light is shining. (Ballantyne p121)

The case studies which are to be analysed and documented are the repurposing and reuse of materials through design-build projects via two major case studies of student live-build projects of temporary architecture between 2012-2017: The FESTA (Festival of Transitional Architecture) Christchurch, New Zealand 2012, 2013, 2014, 2016; and Glow@Artweek Auckland, situated in Silo-Park and Windsor Reserve, Devonport, Auckland, New Zealand 2015, 2016 and 2017. In total, some 530+ Bachelor of Architecture, second-year students of the Unitec Institute of Technology, produced 47+ discrete liminal temporary architectural pavilion/folly propositions which were disseminated to the public to reactivate a city centre: Christchurch due to the earthquakes of 2010/2011; and Devonport due to the demographic nature of the area, predominantly an Edwardian villa suburban area. Using the notion of a zero waste and zero budget design parameters and using FESTA’s material grading system of sources, four significant categories were covered and examined with the projects, as discussed in Pretty, Hyttén-Cavallius (2016 p379):

- **End of Life** - Materials that can no longer be used in its original function because of wear, tear or age. (Lamp of Sacrifice, Lamp of Obedience)

- **Construction or Demolition Waste** - Materials left over from construction, demolition and renovation projects. (Lamp of Power, Lamp of Beauty)

- **Dead Stock** - Outdated materials that is no longer manufactured or no longer has repair or technical support. (Lamp of Memory)

- **Production Waste** - Residual materials from industrial production processes, including materials and components that fail quality control. (Lamp of Truth, Lamp of Memory)

As a result, each year a spectacular impermanent “pavilion city” has been articulated from reused ‘waste’ materials and the inner-city spaces transformed through the reuse of materials, albeit temporal in nature. The primary argument or discourse of the paper will be that this experimental approach and expansion of the architectural field regarding the use of unconventional materials, and the tools and techniques to deal with them, can be perceived as the contemporary answer to the Ruskin’s notion of Sacrifice, Truth, Power, Beauty, Life, Memory, and Obedience.
The importance of materials and materiality in architecture has been of paramount concern throughout the history of architecture. Architects and builders developed and articulated theoretical and practical principles on how materials should be used, assembled, refined, and utilized in construction, continuously developing translation from raw materials to built form. Durability (as much as, if not more than aesthetic) was a main concern for most of that period. However, the Nineteenth century onwards saw the number of materials and construction technologies available to architects rapidly expand, and these new materials allowed a variety of new structures, forms, and effects. These changes marked the starting point of a new tendency: to see architecture and its materials as a symbol, a consequence, or a manifestation of “something else” (Watkin, p3). In architecture, the suppression of judgments based on purely visual properties started to prevail, together with a few tendencies: a) to judge architectural works as technical achievements; b) to merge the ethical and aesthetic judgments of architectural works; c) to apply moral concepts to physical things (Scott, p15-23). In that terms, Ruskin’s text exemplifies one of the first writings in which architecture started to be judged on the bases of abstract ideas, and as such, it is still very current and relevant today.

2. THE LAMP OF SACRIFICE

In chapter one of Ruskin’s Seven Lamps of Architecture (1880 2nd ed.) he alludes to the notion of sacrifice. His interpretation of Sacrifice (bearing in mind he was a highly religious man (Ballantyne 2015)) is such that it must be demonstrated concerning the dedication of man’s craft to God: as visible proof of man’s love and obedience. According to Ruskin, the architect must sacrifice specific design desires in order to please God. Buildings and architecture must be completed so all men can have a holy place to pray to God, and the buildings must adhere to the principles set down by Him. Before ornateness is allowed, rightful and just structures need to be built for the everyday life. This is exemplified within the following quote:

Architecture is the art which so disposes and adorns the edifices raised by man for whatsoever uses, that the sight of them contribute to his mental health, power, and pleasure. It is very necessary, in the outset of all inquiry, to distinguish carefully between Architecture and Building. (Ruskin, I. p8)

Figure 1. 2013 Canterbury Tales Carnival, In conjunction with FESTA, George Parker & Free Theatre Christchurch: Team Highlight

Albeit the religious element in Ruskin’s first Lamp does not seem to have a direct or an immediate contemporary interpretation, its connection with ornamentation unquestionably does. In 2013, a carnivalesque FESTA in conjunction with the Free Theatre of Christchurch culminated in an entirely different genesis of project brief, born out of frustrations from the Christchurch community of a perceived lack of traction in getting cornerstone projects of the ground; the mechanism was to use Chaucer’s Canterbury Tales. Naturally, a ‘double entendre’ used many of the stories as a vehicle to make commentary on the political situation. Team Highlight was partnered with a Pacific Island entertainment group Pacific Underground: originally based in Christchurch but which had relocated northwards after the earthquakes. However, their practice and context were within the Christchurch region, part of their brief was to create a space which could be perceived as a Fale performance space with clean lines and a clear structural emphasis which embodied this.

Ruskin as a corollary to this, talks extensively within this chapter about the necessity for ornamentation not to be overcharged and it can be seen that the students within this project strategized about the manifestation of this by using elongated triangular strips of plasticised fabric (End of Life) to create a skin or walls to their structure, a passing nod to grass covered buildings within the Pacific islands. The result was simple but very effective. The strategy for this students project was to design and build the structure in Auckland and test the fabric. Once they were satisfied that the structure was feasible, bearing in mind windage is always a huge issue in live build projects (Pretty 2015 p843), was then to hire the exact scaffolding in Christchurch thus making shipping and installation relatively simple.
3. THE LAMP OF TRUTH

Ruskin is rigorous and somewhat fastidious in his discussion, regarding his notion of honesty of structure and not overcooking the embellishments on buildings. Deceptive concealment of the structure is most definitely unacceptable. Truth for him is embodied by the handcrafted and honest display of materials and structure. Truth to materials and honest display of construction detail is paramount. Much is discussed by way of surface truth and ornamental truth. He considers it thusly:

We may not be able to command good, or beautiful, or inventive, architecture; but we can command an honest architecture: the meagreness of poverty may be pardoned, the sternness of utility respected; but what is there but scorn for the meanness of deception? (Ruskin V. p35)

One modern consequence or interpretation of the Lamp of Truth can be evidenced by 2014 City Ups: another collaboration of FESTA with numerous student team projects; the premise was to have a metaphorical proscenium arch with which to create a portal to create a forward-looking and backwards-looking lux-pavilions. CityUps consisted of six large scale scaffolding frames/portals (approx. 10m x 12m). The student teams suffered hugely from lack of ability to really test structural integrity as finding anywhere to hanging their structure of 10 metres proved a challenge. (due to health & safety issues) Ruskin describes an honest building as defined as a building that doesn’t hide its flaws under decorative notions. Wood should not purport to be stone, and windows should be nothing more - this can be exemplified by the strategy of ING to reuse 30,000 (Production Waste) bottles which were due to go to landfill in China; they were diverted used for the project and crushed and recollected by the company and resumed their journey to China (Pretty, Hyltén-Cavallius (2016 p378). The pavilion had an honesty of structure which was clearly apparent to the viewers albeit a simple device of finding the correct sized mesh to screw the bottle lids through which enable the swaths/banners of bottles to hang from the portal. Simple LED lighting at the base of each banner meant for the impactful lighting of structure certainly not falsify the nature of the construction; as Ruskin would state:

But in architecture another and less subtle, more contemptible, violation of truth is possible; a direct falsity of assertion respecting the nature of material or the quantity of labour. (Ruskin V. p34)
4. THE LAMP OF POWER

In the Lamp of Power Ruskin examines: size, form weight, shadow, the massing of the structure, view, setting, and line are considered. Ruskin argues that a building possesses shape, and it is the duty of the architect to present that shape in the best possible fashion.

Ruskin felt that buildings deserved to be viewed from all angles, and specific settings and lines of view disrupt the natural power of a building. Architects must consider all vantage points, building position, and the horizon when considering the design of a building. A building is a shape and a mass. Its immensity in comparison to man has its own effect apart from its ornamentation. The architect's job is to display this shape to its best effect. Ruskin considers setting and view and line. A building set on a hill can have its mass well displayed. That same building with massive mountains as the backdrop may not seem so significant. If it is surrounded with buildings it could be hard to find a position to see it as a whole. Ruskin refers to the bounding line, and by that, he seems to mean an unfettered continuation of an edge or seam or horizon that the eye will follow:

It has often been observed that a building, in order to show its magnitude, must be seen all at once; - it would, perhaps, be better to say, must be bounded as much as possible by continuous lines, and that its extreme points should be seen all at once; or we may state, in simple terms still, that it must have one visible bounding line from top to bottom, and from end to end. (Ruskin VI. p75)

Ruskin goes into depth about the bounding line and avoiding the disruption of continuity. The bounding line is the continuation of an edge that the eye follows on the entire structure. This proposal is typified in the approach Team Kina used during the 2016, Glow@Artweek Auckland, by designing a laser cut structure. Once the 200+recycled road cones were in place (the structure has to be designed such that the cones were not damaged) that clear, unimpeded views were afforded from many view shafts within Devonport. The fact that the cones luminesced under specific lighting meant for a dynamic radiating pavilion which glowed and illuminated the park space at night.

5. THE LAMP OF BEAUTY

Remember that the eye is at mercy more than the ear. “The eye, it cannot choose but see”. (Ruskin XVIII. p118)

In this section, Ruskin relies heavily on the designs seen in nature and points out that architecture should stem from the natural environment. Ornamentation is drawn from the natural world to represent the aspirational nature of God. Nature is the model for beauty. Lines and shapes should be derived from the natural world. Ruskin refers to skin and ornamentation. He draws heavily on nature because in his eyes nature is our schoolmaster for beauty. Therefore, art in our buildings should be imitative of the forms and lines and shapes we see in nature. If a column seems beautiful, it is because we see them all around us in the stems of plants. If a pointed arch is pleasing to the eye, it is because that shape was first pleasing as the shape of a leaf. He criticises ornamentation that is not imitative of nature:

Now, I would insist especially on the fact, of which I doubt not that farther illustrations will occur to the mind of every reader, that all most lovely forms and thoughts are directly taken from natural objects; because I would fain be allowed to assume also the converse of this, namely, that forms which are not taken from natural objects must be ugly. (Ruskin III. p105)
Ruskin’s belief that architecture is an organic human interpretation of the environment and thus should be respected can be recognised in the modern understanding of this paradigm by 2017 Glow@Artweek Auckland Team Spectacle. They searched for a design material which personified this approach of using a natural product rather than the oft-used Production Waste. A generous supply of bamboo was sourced in West Auckland. The owners were more than happy to allow selective harvesting of this material. A pavilion structure was informed by the Tukutuku panels within a Wharenui, albeit using a very contemporary lashing material: car tyre inner (End of Life materials) which gave flex to the structure. This team’s approach brings us back to Ruskin’s discussion of restraint:

 Restraining ourselves, therefore to the use of such simple patterns, so far forth as our colour is subordinate either to architecture structure, or sculptural form. (Ruskin XL, p142)

6. THE LAMP OF LIFE

Perfect finish characterizes alike the best architecture and the best painting (Ruskin Aphorism 24, P154)

Ruskin insists that great buildings are created by the hands of skilled architects and craftsmen - the basis for the Lamp of Life: Man, as a machine, social responsibility, poetry, and expressive freedom. Buildings should, therefore, be made by human hands so that the joy of masons and stone carvers are associated with the expressive freedom given them; masons and carpenters must pour their lives into a building project. This has less to do with the building per se, but rather the manner in which it was formed. The building, hence, becomes the manifestation of the intent of the builder. Ruskin takes a strong stance against large-scale building plans, and advocates for a local, unique approach to the design of every building. Ruskin valued the contribution of the individual artist and craftsmen. However, in today’s paradigm there is little in the way of current building activity, whether modern or traditional, that can be said to draw value from the contribution of its craftsmen. Mass production has prevailed, and this is evident in the 2015 Glow@Artweek Auckland - where Team Halo, repetitively used the balloon (Production Waste) as a device to create a cloud-like formation. Creating a transitory short-lived lux-pavilion which had a superb night-time presence but which fell short during the day, as the general public thought it more fun to pop the balloons than understanding they were part of a lux-folly. Albeit not an organic form of a cloud, due to the materiality: it was without fail a compelling vision. Needless to say, nearly all of the student projects have an element of the Lamp of Life due to the handcrafting aspect of making these pavilions/ lux-follies.

Figure 4, 2017 Glow@Artweek Auckland Windsor Reserve: Team Spectacle

Figure 5. 2015 Glow@Artweek Auckland, Windsor Reserve: Team Halo
7. THE LAMP OF MEMORY

It is in the first of these two directions that Memory may truly be said to be the Sixth Lamp of Architecture; for it is in becoming memorial or monumental that a true perfection is attained by civil and domestic buildings; … (Ruskin III. p178-179)

Ruskin’s sixth lamp is that of Memory, as recorded in the above quote, examines his premise of the civic and the domestic memory, and uses notions such as the picturesque, in his terminology the Parasitical Sublimity; and the sculpturesque. His belief is that buildings or architecture should reflect the culture and be next logical step after previous genres of architecture. They, in turn, will inform the culture that follows. Ruskin was not a devotee of innovative disruption. He believed that even gradual change was something to be distrusted: an inveterate conservative - many twenty century modernists discounted the Lamp of Memory instead of which returning to the Lamp of Truth: allowing the authenticity of the materials to shine through. Often as not theorists reject the Lamp of Memory, preferring to change the character of an area rather than reflect its values.

For Team Lustrous the paradigm of the picturesque was difficult to achieve (due to site, structure and materiality); however the notion of sculpturesque was one which resonated with them. In 2016 FESTA partnered with SuperUse studio from The Netherlands to create Lean Means; originally conceived that each student project would be supplied with an inverted tetrahedral scaffolding structure weighed down by the Dead Man’s weight (one-ton concrete blocks) however the fatigue of construction companies providing scaffolding etc pro bono, five years after original earthquakes was proving very thin; thus only two projects received the tetrahedral structure. Lustrous played on the notion of the structure and created three mini inverted pyramids from two Litre drink bottles which generated a gentle noise, not unlike a bamboo windchime, or the wind in the trees. While resonating Ruskin’s notion of sculpturesque, these pyramidal mountains were simultaneously looking back to the unique nature and culture of New Zealand.

8. THE LAMP OF OBEDIENCE

The glory and use of restraint (Ruskin Aphorism 33. p208)

Ruskin’s final Lamp – that of Obedience, is both knotty and perplexing, as he considers freedom and expressionist style as a linguistic analogy. No originality is allowed for its own sake, but conforming to the finest among existing English values, in particular, expressed through the “English Early Decorated” Gothic as the safest choice of style. Contemporary readers find similarities between this Lamp and Lamp of Sacrifice. However, the resonating imperative of this slim chapter is that of restraint: of surface texture, ornamentation, and simple colour combinations.
In 2012 Team Archrobatics found an End of Life product which was not only free but had a degree of inherent stretchability which made for a perfect material which had the intrinsic qualities of Ruskin's glory and use of restraint. The “sails” were made from the netting hung over vines to keep birds off the grapes. As this was the first year of reactivating inner-city Christchurch just after most of the Red Zone fencing was removed, far more gifting of pro bono cranes, scaffolding, heavy lifting machinery was available. Hence the concept to create a lux-pavilion out of scalene, acute, equilateral triangles proved to be a compelling solution, especially when simply or honestly lit from the LED lights. The addition of a café partner activated the space such that it became a compelling lux-pavillion folly.

9. CONCLUSIONS

The scholarship and critique of Ruskin’s concepts within The Seven Lamps of Architecture is a vast panoply with which to delve and disentangle. The seven lamps reflect on ideas about honest materials and rational tectonics - which are at the heart of Ruskin's raison d’être. However, this paper has no intention to have a new, or unique contribution to existing and rich scholarship on Ruskin, but rather to explain the students’ experience, learning and implications of this exercise on their architectural competence as they embark upon architectural practice.

Firstly, the seven case studies embody the use of standardised, mass-produced non-normative western building materials: bamboo, bird proof netting, building wrap plastic, disposable plastic bottles and road cones (within these case studies) in new ways while making structural innovations or even radical architecture. It was an essential part of students’ process in understanding and conceptualising the “live-build” scenario, as well as understanding the palpable issue of scalability. The student refrain of “Oh, I never realised it would be so enormous” was extraordinary learning for students to grasp, and one perhaps which is vital for an Architect to master. (Pretty 2015 p844). It is this which pushes the boundaries of students’ understanding of materials and materiality and allows them to question traditional spaces and shapes. This notion of scalability (working to 1:1 rather than with a model) that will inform their practice, both post education and within the confines of better understand their studio practice, at latter years.

Secondly, the students authentically experienced the notion of co-design within the architectural paradigm, that of working within a team situation, and interacting with “clients”. The students had to identify their limitations regarding different tasks and project responsibilities they had to perform: preparing scale drawings for council consent, sourcing free materials (since the case studies were zero budget zero waste), fundraising, and the struggles of understanding the design and build process. All of that together provided a “real life” architectural experience – specifically since engineers had to sign off all installations for the non-notified building consent, plus pass engineering inspection on the opening night. However, principally, the students learnt about the importance of group work skills and an ability to conduct all aspects which coalesced together to get the project constructed. Cooperation and communication within groups is a fundamental part of their progress towards becoming architectural professionals. Masters students often remark to second-year students during reviews/critiques that the live-build (FESTA & Glow) as team projects were the most defining studio project of their education. (Pretty 2016 p220).

Finally, the students learnt that sustainability is not a process to be viewed discretely but one which needs to be considered as holistic, to architecture. All materials the students used were recycled and donated for reuse, so that little to no waste was produced – this is to promote sustainability and repurposing materials through design. Sourcing waste stream materials and producing a zero-waste installation enabled the students to learn how to revitalise dead stock, as well as damaged production waste, thus preventing these from ending up in a landfill. It raised the students’ awareness of the ecological impact that materiality has on an overall building project and also became an educational tool in the students’ hands: the number of bottles used in some pavilions highlighted the extent to which we consume products and produce waste, in the hopes that visitors would question where their waste goes, or how else it could be used for a new purpose. It results in the students’ awareness of architects’ role and/or influence in/for society. The choice of Ruskin as a vehicle to critically explore this experiential approach where lux pavilions are constructed by way of modest means which embeds...
sustainability in which students need to co-design with their peers: to understand concerns about the possible (creative) use and role of re-purposed materials in architecture, and to show that architecture is not a singular endeavour but rather a crossroad between many complex issues, is we believe of paramount importance for architectural students.

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