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THOUGHTS AND EXPERIMENTS EN ROUTE TO INTENSELY LOCAL ARCHITECTURES

MICHAEL U. HENSEL

Abstract

This paper examines an experimental approach to intensely local architectures and to what everyday tectonics seen from this perspective might become. The discussion commences with approaching the notions of the *local* and of *tectonics* so as to re-question these with the aim to articulate a framework and agenda for progressing the approach to intensely local architectures through design and built activities. The latter are undertaken in the context of the Scarcity and Creativity Studio at the Oslo School of Architecture and Design. In the conclusive part further lines of inquiry en route to intensely local architectures are addressed.

Keywords:
experimental design, design and build, intensely local architectures, local schools of thought

Thoughts and experiments en route to intensely local architectures

> *Life consists not only of development in time but of spatial diversity as well. Lösch (1954, p. 508)*

One frequently discussed problematic in architecture today is that of a pronounced development towards global homogenisation of the built environment – in spite of the current proclivity for superficial formal variances – that is marked by an essential indifference to local conditions, culture, and climate. This development yields the need to consider both role and definition of the *local* and the way it may be deployed in architectural design and the physical articulation of architectures and the built environment. Repositioning the role of the local offers thus an interesting inroad to discussing the question of *everyday tectonics*.

This paper explores then not what everyday tectonics is today, but, instead, what it could be. In so doing, this effort commences with approaching the notions of the *local* and of *tectonics* so as to re-questioning these with the aim to articulate a framework and agenda for experimental design through design and built activities. In the following part some related projects are discussed and subsequently further lines of inquiry en route to intensely local architectures are addressed.

Approaching questions of the local

> *Architecture is the result of the state of mind of its time. We are facing an event in contemporary thought … the techniques, the problems raised, like the scientific means to solve them, are universal. Nevertheless, there will be no confusion of regions; for climatic, geographic, topographic conditions, the currents of race and thousands of things still today unknown, will always guide solutions towards forms conditioned by them* (Le Corbusier, 1991 [1930], p. 218)

The question of the relation between trends towards universalization of architecture and the role of the local is not new. Alan Colquhoun located the origin of the discussion of *regionalism* in the eighteenth century, pointing out that the objective that gradually emerged was that «*architecture should be firmly based on specific regional practices based on climate, geography, local materials, and local traditions. It has been tacitly assumed that such a foundation is necessary for the development of an authentic modern architecture*» (Colquhoun, 1996, p. 141). However, he criticised this understanding in the context of late capitalism, which, as he points out, radically differ from the traditional logic from which regional differences evolved:

> *One of the intentions of a regionalist approach is the preservation of 'difference'. But difference, which used to be ensured by the co-existence of watertight and autonomous regions of culture, now depends largely on two other phenomena: individualism and the nation-state. … Designs that emphasise local architecture are no more privileged today than other ways of adapting architecture to the conditions of modernity. The combination of these various ways is the result of the choices of individual architects who are operating from within multiple codes* (Colquhoun, 1996, pp. 152–153).

What Colquhoun describes is a fundamental shift of the drivers of difference from what might be considered a regional logic to one that plays out on the scale of the individual and the nation state. Regarding the former he posits that architects are now subjected to multiple codes that are no longer necessarily and intrinsically coherent or related to a singular locality. Colquhoun continued:

> *The concept of regionality depends on it being possible to correlate cultural codes with geographical regions. It is based on traditional systems of communication in which climate, geography, craft traditions, and religions are absolutely determining. These determinants are rapidly disappearing and in large parts of the world no longer exist… Modern society is polyvalent – that is to say, its codes are generated randomly from within a universal system of rationalisation that, in itself, claims to be 'value free'* (Colquhoun, 1996, p. 154).

This critique offers several points for examination for the purpose at hand. The first point concerns the assumed relation between *difference* and *region* that commonly underlies critical regionalism approaches. In this understanding region defines a coherent set of traits and similarities and difference is what divides one region from another along a singular divide. This understanding is problematic when it comes to establishing a distinct delineation between regions, in particular when numerous traits are at stakes. Regions are simply not entirely 'watertight and autonomous'. What one might find more often than not is that such delineations are never singular and rarely coincide. What one encounters here is what is known in systems-thinking as the *boundary problem*. Where the boundary of a given situation is drawn is of vital importance, as this impact upon how a given situation or problem is understood. As Werner Ulrich pointed out, «*the meaning and the validity of professional propositions always depend on boundary judgments as to what 'facts' (observations) and 'norms' (valuation standards) are to be considered relevant and what others are to be left out or considered less important*» (Ulrich, 2002, p. 41). Frampton acknowledges this problematic: «*Critical regionalism begs the question as to what are the true limits of a region and what is its institutional status*» (Frampton, 1987, p. 380). This concern resonates with Christopher Alexander's who cautiously advised that ar-

chitects «*ought always really to design with a number of nested, overlapped form-context boundaries in mind*» (Alexander, 1964, p. 18). These realisations also apply to the analysis of regions and the traits that may characterize them. While in some cases these may be clearly delineated, for instance along strongly articulated geographic borders and divides, where the latter is lacking this may not at all be the case.[1] Hence one might either propose a laterally fluid model of regions or one might commence bottom-up from a specific location outwards mapping the extent of reach of each particular trait of interest. The likely result of both are multiple overlapped boundaries and frequently generated hybrid solutions.

A further question concerns key aspects in defining a region. Frampton cautioned that «*it would be foolishly restrictive if we conceive of region only in terms of locality and climate, etc., although these factors are surely critical to the constitution and expressivity of local form*» (Frampton, 1987, p. 380) and cautioned that the institutional role of a region includes two critical aspects, that of a «'school' of local culture» and «the cultivation of a client in a profound sense» (Frampton, 1987, p. 380). Wherever these exist they can be tapped into without necessarily generalising all other aspects that vary within the thus established boundaries. Wherever these do not exist they can be gradually generated in a bottom-up manner as eminent examples such as the Open City in Ritoque, Chile, seek to demonstrate, in which there exists an explicit search for a locally specific architecture that nevertheless resists defining a singular canonic expression and identity.[2] Here the problematic of individualisation is circumnavigated by a common goal and a shared 'school of thought' that does not require a streamlining of all traits of architecture. On the contrary, a pluralistic tendency is inherent in to the objective of constant development and avoiding arresting identity in time by way of homogenous architectural articulation. After all, the logic of the vernacular cannot be equated with the logic of designed architecture. It is the trait of design to seek out in one way or another novel solutions according to a rather different logic, new concerns or needs and a contemporary modus operandi.

How can this be approached in today's context? In a seminal essay from 1983 entitled 'Towards a critical regionalism: Six points for an architecture of resistance' Kenneth Frampton stated the objective of critical regionalism «*is to mediate the impact of universal civilisation with elements derived indirectly from the peculiarities of a particular place*» (Frampton, 1983, p. 21). This question has not lost its acuteness since. As for the materialisation of everyday tectonics it would seem clear that neither traditional methods of making can be reinstated at the needed scale, not that extensive resources can be made available for the purpose. Instead it seems likely that everyday tectonics in the so-called 'developed world' are likely to be configured from elements and semi-fin-

1 A study of Vellinga, Oliver and Bridge's *Atlas of vernacular architectures of the world* (2007), for instance, which systematically maps materials and resources, structural systems and technologies, building forms and types, services and functions, symbolism, decoration, and so on, indicates this clearly.

2 The Open City, a 270 hectares site north of Valparaiso owned by the Corporacion Cultural Amereida, constitutes an ongoing project of accumulative experimental projects that seek to elaborate an architecture specific to the local pacific coastal conditions.

ished products that can be obtained anywhere today disregarding of location. If then these elements occur everywhere in everyday tectonics the question emerges whether these can be configured in such manner as to address locally specific conditions, desires and needs.

Approaching questions of tectonics

The effort to link the question of tectonics to the discussion above requires a systemic approach. This entails examining what the notion of tectonics entails in a systematic manner across scales of hierarchy of definition. Here it is of use to start with Gottfried Semper's proposed distinction between tectonics and *stereotomics* (Semper, 1851). In reference to Semper Kenneth Frampton elaborated these elements as two «*fundamental procedures: the tectonics of the frame, in which lightweight, linear components are assembled so as to encompass a spatial matrix, and the stereotomics of the earthwork, wherein mass and volume are conjointly formed through the repetitious piling up of heavy elements*» (Frampton, 1996, p. 5). Most importantly Frampton in accordance with Semper emphasized that «*according to climate, custom, and available material the respective roles played by tectonics and stereotomics vary considerably*» (Frampton, 1996, p. 6). The current trend towards homogenization of architecture on a global scale suggest reviewing the relation between tectonics and stereotomics relative to local settings with focus placed on their context-specific relevance and the resources invested in both respectively. The characteristics of a globalised architecture is the typical erasure of terrain articulation in favour of a flattened site, the use of a large amount of reinforced concrete for foundations, basements and the core of buildings, and frequently frames and envelopes made from steel and glass, plus technical apparatus for the climatization of the interior. This suggests that a number of capacities of tectonics and stereotomics have been relegated to a technical apparatus and that there is no check or alternative on the extensive use of stereotomics in its essentially equivalent form of reinforced concrete. Kenneth Frampton criticised that:

> *These works tend to create an overall drive towards optimisation, that is, towards the reduction of building to the maximizing of economic criteria and to the adoption of normative plans and construction methods reducing architecture to the provision of an aesthetic skin – the packaging, in fact, of nothing more than a large commodity in order to facilitate its marketing* (Frampton, 1987, p. 376).

This may in part constitute the reason why today discussions focus on tectonics and less on stereotomics, although the latter constitutes a significant and long-term impact of todays built environment.

Progressing in systemic scale it is of use to examine Semper's posited four

elements of architecture as restated by Frampton: [i] earthwork, [ii] the hearth, [iii] framework / roof, and [iv] lightweight enclosing membrane (Frampton, 1996, p. 5), each sensitive and specific to local circumstances. Here the specific articulation and dimensioning of elements that constitute tectonics are of use. What drives distinction may no longer be inherently related locally specific material resources and crafts, but, instead, in the way in which elements are configured into assemblies, indicating a shift from craftsmanship and jointing to assembly and variation. This entails among other aspects a shift in the contemporary notion of parametric design away from the primary goal of generating idiosyncratic architectures and towards foregrounding interrelated concerns for spatial arrangement and environmental modulation.

To make this point in a more explicit manner it is of use to elaborate a few traits of architectural designs that also appear in the projects discussed below. Such traits may include the layering of tectonic elements to articulate spatial transitions from exterior to interior that are specific to local climate, requirements for shelter and related patterns of use. The elements with which such transitions can be articulated include canopies (see figure 1), screenwalls (see figure 2) and full enclosures. While each of them may be articulated from globally available materials, their specific proportional relations, dimensions and orientations are critical to unfold performative capacities that answer to specific local

Figure 1
Textile membrane canopies designed and built by the Scarcity and Creativity Studio.

Figure 2
Screenwalls and -surfaces designed and built by the Scarcity and Creativity Studio.

conditions. This was made explicit by the late Hassan Fathy by way of the example of Islamic screenwalls, so-called mashrabīyas, which are wooden lattice-works characterized by multi-functionality and high level craftsmanship (Fathy, 1986). These screen-walls regulate the passage of light, airflow, temperature and humidity of the air current, as well as visual access from the inside and the outside. This is accomplished by the careful calibration of the sizes of the balusters that make up the latticework and the interstices between them. Different parts of these screen walls cater for different hierarchies of the integrated functions. If, for instance, interstices need to be smaller at seating or standing height to reduce glare, the resultant reduction in airflow would be compensated for by larger interstices higher up in the latticework. In relation to tectonics and local specificity two aspects need to be considered: [i] contrary to common assumption screen-walls have also been in use in cold climates for climatic modulation purposes; [ii] the craftsmanship that is present in traditional examples can be replaced by computer-aided manufacturing processes to accomplish a similar level of detailed articulation and splendor. The latter, however, depends on the availability

of technology and financial resources. Wherever these are not available simpler methods of production through assembly can serve to articulate less refined, yet equally performative designs.

The pursuit of a particular range such traits and their articulation according to local circumstances into architectures with layered space could serve as base assets for configuring a specific 'school of thought' the output of which in tectonic terms can be locally highly specific even though similar tectonic elements occur in locations that do not constitute a region in the typical sense. It is their capacity for alteration that makes them 'everyday' in a quite unassuming sense, while the architectural intentions by which these are configured into locally specific designs allows them to adhere to 'schools of thought' that are not local in terms of their location, yet in their determination. Perhaps it is the obvious that is stated here.

Experimental projects en route to intensely local architectures

A direct way forward in developing a contemporary approach to intensely local architectures can be found in small-scale experimental design and build projects. What seems obvious is that the implications for experimenting and elaborating alternative approaches to tectonics and stereotomics are today entirely different in relation to the size of project. While medium and large projects have their own specific set of constraints and are currently habitually driven by consideration that are largely prohibitive to experimentation it is the small scale projects that offer a broad scope of possibilities. This is further enhanced if small projects are experimental in character. The projects discussed below constitute experimental design and built efforts in the context of the Scarcity and Creativity Studio at the Oslo School of Architecture in the period from 2012 to 2014 (Hensel and Hermansen Cordua, forthcoming). Typically these projects are designed and constructed within one semester with a construction time of up to one month. One obvious challenge is to ensure that the project is aligned with the craft skills of the students or, alternatively, with the possibility to acquire required skills for the construction of the project. This often limits the choice of construction methods and related materials. Specific architectural elements have recurred in projects in quite different contexts and begin to constitute tectonics themes that both reflect the architectural approach of the studio and the elements that are articulated in response to different local conditions and circumstances.

In 2012 the Scarcity and Creativity Studio designed and constructed three projects for the Open City in Ritoque, itself a seminal showcase of architectural and tectonic experimentation and research. The *Walk the Line* project provides a minimal temporary accommodation for visiting

scholars set within the coastal dune landscape. *Hospedería de las Alas* is a bird observation shelter placed at the peak of a dune that overlooks a river estuary and bird sanctuary. This project initiated the use of screen-like walls in the work of the studio. See figure 3. *Las Piedras del Cielo* is an outdoor space for communal eating and nature observation with a small kitchen for food preparation. These modest projects engage with the objective of the Open City to develop architectures that are particular to South America and more specifically to the local Pacific coastal landscape. Additionally they constitute experiment with different structural systems that can cope with the impact of the severe coastal winter storms and earthquakes, yet with minimum ground impact.

Figure 3
Hospederia de las Alas – Bird Observation Shelter, Open City, Ritoque, Chile, 2012.
Views of the project in the pacific coastal dune landscape.

The *Las Piedras del Cielo* project is situated in the Pacific coastal dune landscape of the Open City next to the wetlands of its river estuary, see figure 4. The project consists of a landscaped deck that is intended to be continuous with the land-form of the dune landscape, an enclosed space for a small kitchen that is enfolded in the landscape deck (se figure 5), and a textile membrane canopy. The landscaped deck provides a sitting surface that forms a horseshoe in plan with a fireplace in its centre (figure 6). Deck and the canopy are structurally integrated and require only small point foundations with minimal ground impact, although each foundation is subjected to different and often combined load

Figure 4
Las Piedras del Cielo – Outdoor dining and food preparation facility, Open City Ritoque, 2012. Views of the project in the pacific coastal dune landscape.

Figure 5
Las Piedras del Cielo – Outdoor dining and food preparation facility, Open City Ritoque, 2012. Volume of the landscape deck providing an interior space for food preparation.

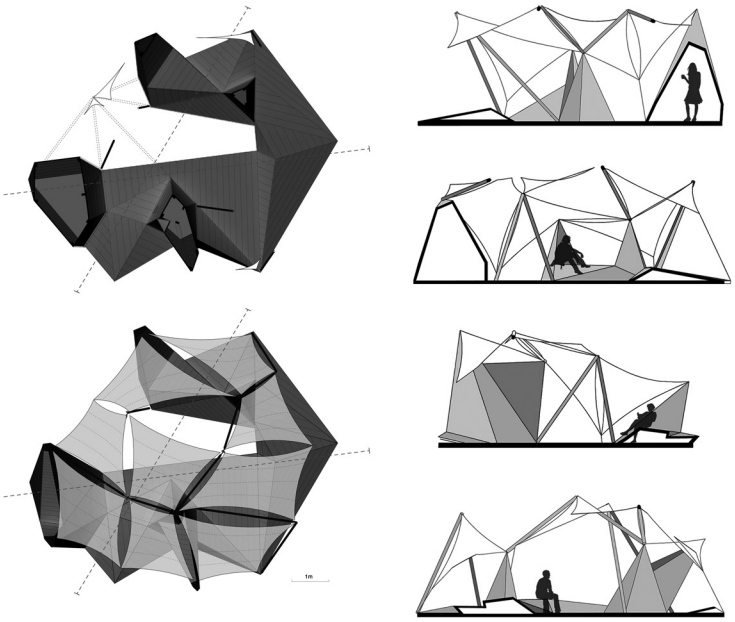

Figure 6
Las Piedras del Cielo – Outdoor dining and food preparation facility, Open City Ritoque, 2012. Plans (left) and sections (right).

cases including wind and earthquake impact (figure 7). The relation between the frame and surfaces that make up the deck, the enclosure and the canopy provides degrees of shelter and exposure. The membrane canopy is articulated as an array of membranes to reduce the considerable horizontal loads due to the gale-force pacific coastal winter storms that cause more local havoc than earthquakes. See figure 8.

In 2013 the studio designed and constructed two projects north of the Arctic Circle in Nusfjord, a historical Norwegian fishing village with a natural harbour set within the rocky shoreline of the Lofoten archipelago. The *Flying Compression Canopy* together with the landscaped furniture provides an outdoor eating area for Nusfjord's restaurant located in the harbour, while the *2x2 Bathing Platform* faces the open sea towards the Westfjord. The winter weather of the Northern Atlantic often impacts severely on the local architectures and constitutes a critical design criterion.

The *2x2 Bathing Platform* comprises a sundeck, a sauna and a hot tub. It is located on an undulating granite shore that slopes from the existing buildings, which define the north-western perimeter of the project towards the sea (see figure 9). Detailed attention was placed on the integration of the project into the existing landscape (figure 10), in particular in the detailed seams where structure meets landscape, as well as its capacity to withstand the North Atlantic winter storms and waves. A grid of point foundations consisting of steel pins are directly set into the rock to minimise ground impact and preserve the terrain, reflecting a key characteristic of traditional Norwegian architecture. The tectonic of the project is not defined by skilled joining, but instead by a

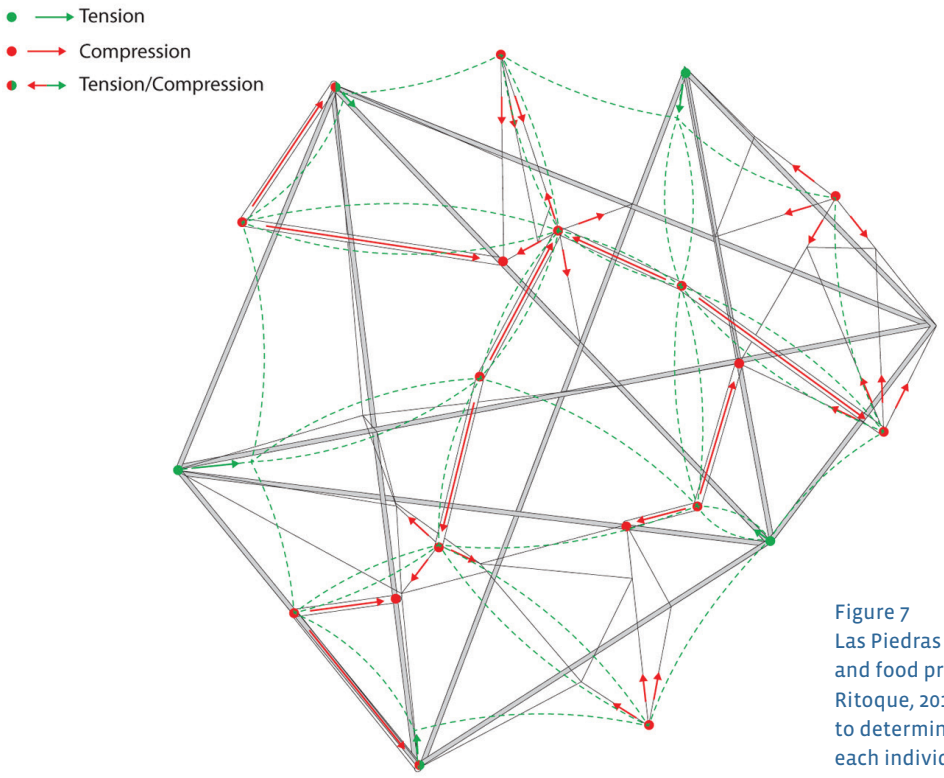

Figure 7
Las Piedras del Cielo – Outdoor dining and food preparation facility, Open City Ritoque, 2012. Stress diagram intended to determine the forces that act on each individual point foundation.

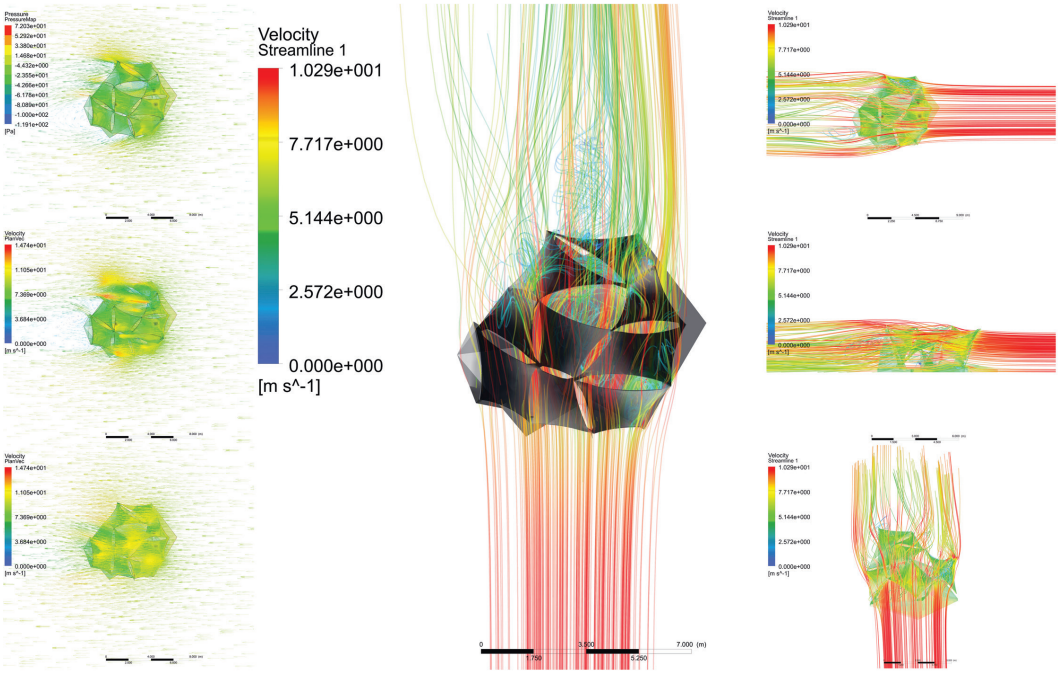

Figure 8
Las Piedras del Cielo – Outdoor dining and food preparation facility, Open City Ritoque, 2012. Airflow analysis intended to determine the considerable horizontal wind loads and uplift due to pacific coastal gale force winds.

Figure 9
2x2 Bathing Platform, Nusfjord, Lofoten, Norway, 2013. View of the project in the coastal landscape of Lofoten.

Figure 10
2x2 Bathing Platform, Nusfjord, Lofoten, Norway, 2013. View across the screen-like platform.

coordinated design and assembly logic that considers the internal seams of the platform wherever it changes in slope and the external edges where the platform meets the surrounding landscape. The platform also articulates the enclosure for a transitional semi-sheltered space and the sauna. Here the platform is in parts articulated as stepped seating for musical and theatrical events on site during the summer months. The entire platform is articulated in a screenwall-like manner by alternating the 2" x 2" timber profiles with spacers to accomplish visual permeability, rainwater runoff and reduction of uplift. In its tectonic articulation the platform constitutes and hybrid between frame, landform surface, and screen (figure 11) that does not seek to conceal or substitute the existing ground, but that utilises the space between the existing ground and the construction to enhance performative capacities and the experience of degrees of exposure to the landscape and the elements.

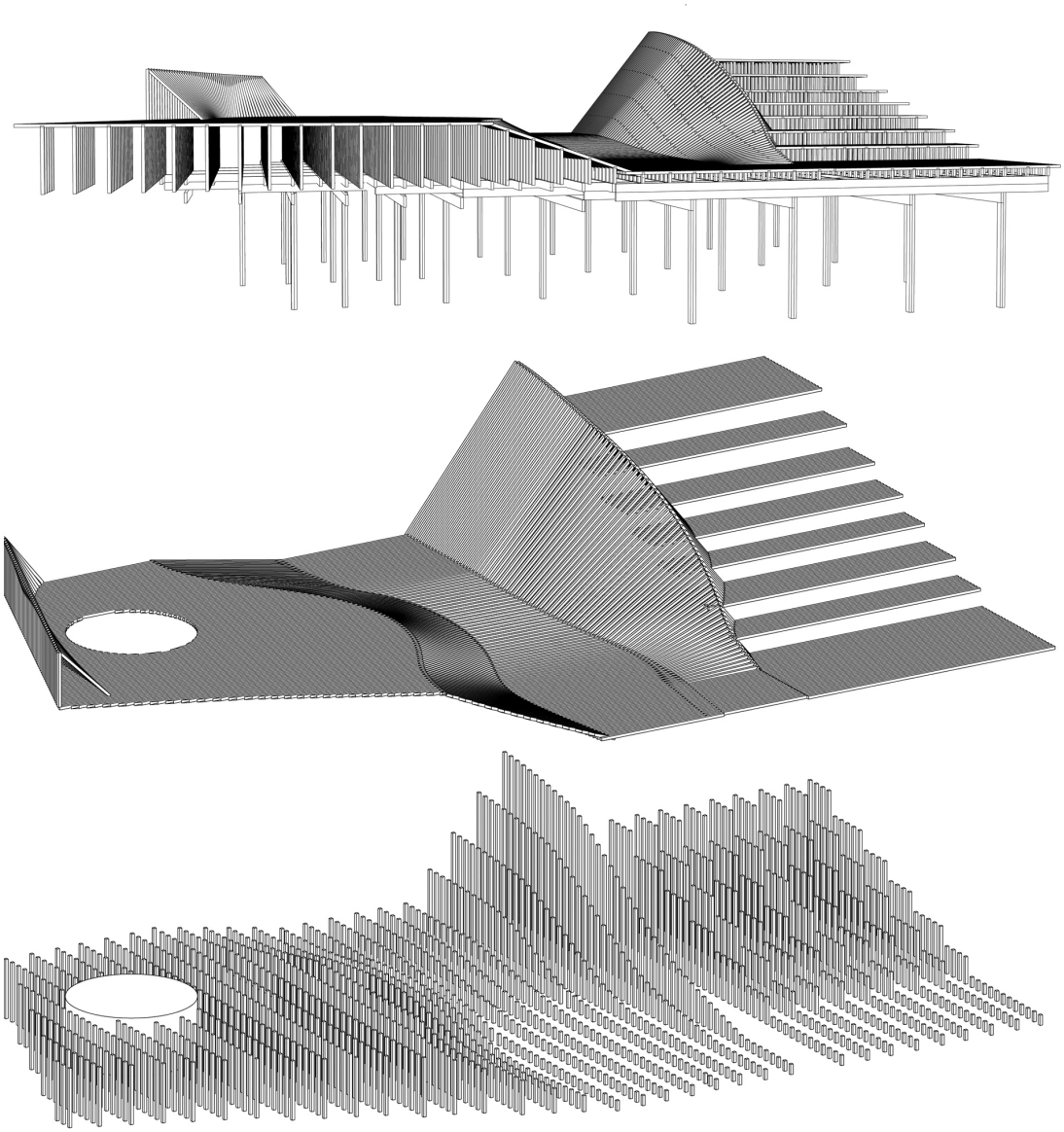

Figure 11
2x2 Bathing Platform, Nusfjord, Lofoten, Norway, 2013. Axonometric showing the tectonic elements of the project.

Figure 12
Flying Compression Canopy and Landscaped Furniture, Nusfjord, Lofoten, Norway, 2013. View of the project from the approach to Nusfjord harbour.

The *Floating Compression Canopy* is located on the main pier of Nusfjord facing its natural harbour (see figure 12). It defines the outdoor catering area of the adjacent restaurant, which shelters the site to the north. In search of an architecture that reflects upon the boats in the harbour a tensegrity system was chosen, which pays homage to Kenneth Snelson the inventor of the floating compression system (see figure 13). The materials chosen for the canopy – aluminium tubes for the compression members and high-performance rope as the tension element – reflects on the material of contemporary boat masts and rigging and, in so doing, blends visually with the boats that fill the harbour during the warm season. As the project was designed to withstand gale-force winter storms a particular problem came up. During the winter large waves that brake on the concrete retaining wall below the pier often lift and damage the pier decking. For this reason the decking is not permanently fixed to the substructure of the pier in order to reduce the risk of damage, thus the decking panels can be displaced by the breaking waves and can subsequently simply be placed back. However, this was not possible at the foot-points of the canopy where a small area of pier decking needed to be permanently fixed.

The high-performance rope that was chosen for the tensegrity system is frequently used on sailing boats. Splicing, knotting and sewing skills needed to be acquired for this purpose and in one instance a new type of

Figure 13
Flying Compression Canopy and Landscaped Furniture, Nusfjord, Lofoten, Norway, 2013. View of the project from the land approach to the pier.

knot was created (see figure 14). This type of work falls between craft and assembly skills containing elements of both, and offers an interesting instance of skill transfer and modification from one application domain to another. In so doing the *Floating Compression Canopy* aimed for a tectonic hybrid between architecture and naval architecture. Over time it turned out that the rope experienced unexpectedly a large amount of creep. In result the system lost tension and started sagging. Eventually the structure had to be taken down. This could have been avoided by working with steel compression members and cables. However, client and design team had decided together at the onset to take this risk, an unavoidable characteristic of experimental works. It is this accepted possibility of failure that enables the search for tectonic solutions outside of the conventional canon in search for local specificity and everydayness in a specific context.

In 2014 the Scarcity and Creativity Studio designed and constructed a new community centre for Pumanque (see figure 15), a town that was deva-stated by the 2010 earthquake. Like the *Las Piedras del Cielo* project the community centre consists of a timber structure and a textile membrane canopy (figure 16). The project comprises two multi-purpose rooms, a semi-sheltered transitional space, a roof terrace accessible by large primary and secondary stairways, and a canopy that partly shelters the roofterrace. The massing of the single storey building reflects that of the buildings in town: a second floor is a luxury affordable only to a few in Pumanque.

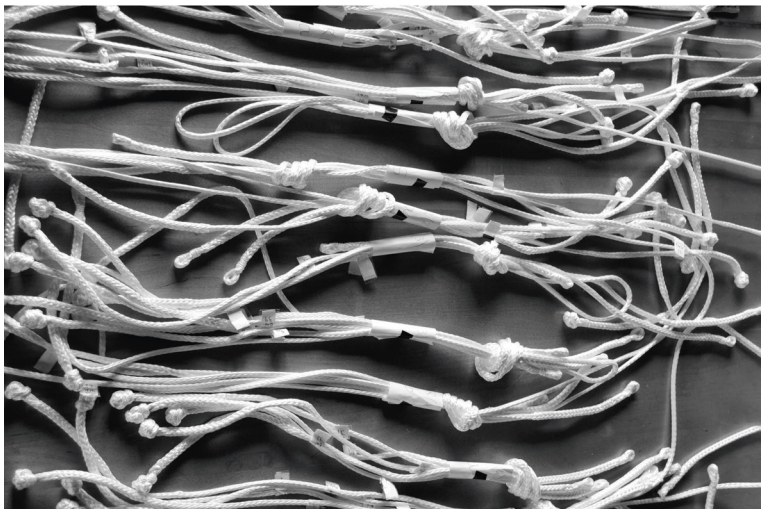

Figure 14
Flying Compression Canopy and Landscaped Furniture, Nusfjord, Lofoten, Norway, 2013. Development of the rope details: splicing, knotting and sewing.

Figure 15
Community Centre in Pumanque, Chile, 2014. View of the front façade of the project.

Figure 16
Community Centre in Pumanque, Chile, 2014. View of the roof terrace and canopy.

For this reason the Community Centre features a roof-terrace that enables visitors to experience the elevated space of a 'second floor'. The roof terrace takes its inspiration from Villa Malaparte in Capri, designed by Adalberto Libera (1937). Yet, while Villa Malaparte articulates a continuous relation with the rocky outcrop it sits on, the community centre constitutes a mediation between the surrounding buildings and the wider landscape. It reflects the terrain-form of the hills that flank the town. Yet, unlike the *2x2 Bathing Platform* the community centre does so not as a landform building, but instead as a clearly defined architectural volume that corresponds with the surrounding buildings. An exterior screenwall provides for varied semi-sheltered and carefully modulated interior conditions. The screenwall is made from 2" x 2" profiles using spacers to produce interstices, similar to the *2x2 Bathing Platform* in Lofoten. In contrast with traditional screenwalls that are characterised by high-level craftsmanship the screenwall of the Community Centre derives its varied articulation from a design strategy based on a simple assembly procedure. Three different panels were designed for the screenwall. Through rotation and mirroring these result in six different patterns that are placed in a non-repetitive manner. While the dimensions of the balusters and the interstices are given by the common 2" x 2" profile the proportioning of balusters and interstices is designed

particular to the seasonal sunlight conditions of the sight. On the less exposed façade towards the courtyard the area of the windows of the climate envelope are kept free of the screenwall to allow more light into the interior space, the windows on the more exposed façade are covered by the screenwall.

The textile membrane canopy was developed as a re-articulation of the colonnaded walkways that line traditional houses in Pumanque, and provides shading of the spaces adjacent to the building and on portions of the roof terrace, while also reducing direct sunlight impact on the interior spaces, a condition that is necessary in this latitude. The placement and articulation of the volume of the building responds to the location of existing trees on site that in conjunction with the building and habitable exterior spatial pockets in the envelope provide sheltered intimate outdoor spaces. The main entrance to the project is centrally located between two interior spaces and sheltered by the screenwall and a bridge that connects the two parts of the roof-terrace. This space can serve as an extension to the two interior spaces, combining them into one large space. The tectonic elements or envelopes of the project – screenwall, climate envelope and canopy – enter into varied relations with one another and other space defining elements, such as existing trees and perimeter wall of the site, and in so doing provide a range of spaces from fully sheltered to exposed and from collective to intimate (see figure 17).

Conclusions: Further inquiries en route to intensely local architectures

The experimental design and construction efforts were undertaken in the Scarcity and Creativity Studio at the Oslo School of Architecture and Design commenced in 2012. Thus far seven projects were built during four semesters. While this is a small number each project had a different brief: a minimal temporary accommodation, a bird observation shelter, an outdoor cooking and eating facility, a canopy for an outdoor area of a restaurant, a bathing platform with sauna and hot tub, a community centre, and an urban event space. This makes comparison and the assessment of the impact of different localities somewhat difficult when applying normative considerations.

From the perspective of recurrent yet varied constituent elements of the projects a different possibility arises, as discussed above. These projects constitute differently combined efforts in [i] articulating a locally specific terrain form that corresponds with the local setting and is integrated with it in an explicit manner; [ii] low ground impact by reducing stereotomic elements to a possible minimum according to needs and circumstances; [iii] providing a locally specific layered and transitional spaces in spite of the small size of the projects to enable choice of use in relation to exposure to exterior climate conditions – this entails the use

Figure 17
Community Centre in Pumanque, Chile, 2014. Views of the backyard of the project.

of different architectural elements such as canopies, screenwalls, etc.; [iv] configuring the designs from locally specific everyday materials and technical means.

What must now follow is a detailed analysis concerning the locally specific patterns of use of the projects and their environmental performance. The former concerns the question how the projects can be increasing-

ly based on and provide for existing local practices. Here it is of use to establish a collaboration with the client and/or users, or alternatively with an interested local architect. Regarding the latter the studio currently experiments with purpose-made remote access sensor networks in order to obtain empirical data in future projects. And finally an important field of analysis concerns the use of the projects.

In a future project it would be of interest to introduce consideration concerning local craftsmanship in the design process of the projects as far as local craftsmanship exists in the respective contexts. This may not be with the primary intent to replicate local craft traditions as this may not be broadly replicable in everyday schemes and tectonics, but instead to examine whether knowledge of local crafts can inform the design from a performance-perspective in which materials and structures are apportioned in a nuanced manner in relation to local conditions, circumstances and resources. Thus the door to one particular approach to locally specific everyday tectonics has just opened and the contours of an emerging 'school of thought' *about* the local is beginning to take shape, which might offset more traditional understandings of regions defined by single boundaries in favour of local specificity defined by multiple boundaries addressing a defined range of interrelated developing themes.

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Current research:

Prof. Dr. Michael U. Hensel's primary research topic is Performance-oriented and Intensely Local Architecture. The research focuses on the further development of the related theoretical and methodological framework, as well as related experimental design and built activities.

Related Writings:

Hensel, M. (2013). *AD Primer – Performance-oriented architecture – Rethinking architectural design and the built environment*. London: AD Wiley.

Hensel, M. and Turko, J. (2015). *Grounds and envelopes – Reshaping architecture and the built environment*. London: Routledge.