The Tectonic of the Fale
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2. The fale is in some sense treated like an upturned boat-hull. In fact, the technology used for its construction is based on replaceability of its components or parts, just as parts are replaced when boats are serviced. With the use of lalava, the joints or members are not weakened by cutting, drilling or nailing. The fale could even be portable: in his book Tongan Society (1929), Gifford mentions early voyagers’ accounts of portable houses set up at convenient places near anchorages for the reception of visitors.

Lalava: The ‘lashing’ of the fale

As part of Pacific and, more specifically, Polynesian building culture, Tongan architecture is essentially derived from notions of ocean, sea faring and navigation, and cosmology (Refiti, 2002). As discussed by Tomui Kaloni, in his paper “The Evolution of Tongan Architecture” (2005), Tongan culture resulted from a process of differentiation by adaptation, and developed within a unique environment. Kaloni advocates that this uniqueness should not be mistakenly generalized.

Tongan aesthetics are based on heliaki—to say one thing, but mean another (Wood-Ellem, 2004). As context and meaning change, this use of allusion and metaphor allows for the passing on of cultural knowledge. Therefore, some insight into the poetics and politics of Tongan verbal and visual modes of expression is necessary to understand Tongan aesthetics, which are not just “an artistic penchant; … [but] a philosophy; a way of life”… (Stevenson, 2002: 18).

As a way of analysing Tongan architecture, I propose exploring the tectonics of the fale in terms of lashing, or lalava. The essence and form of lalava reflect not just a general Pacific ‘tectonic tool’, but a specifically Tongan one. Applications of lalava are not restricted to the fale, but can be extended to other uses: for instance, to boat building, tool making, and traditional clothing. Thus, lalava not only integrates the fale and its components but reflects every other aspect of Tongan culture, society, and way of life.

Tectonics: Ontology and Representation

In general, Tongan arts are divided into faiva, performance art, and tufunga, material arts. Both art forms are governed by time and space: faiva translates as ‘time and space’, and tufunga as a temporal production of ‘form in space’ (Mahina, 2002: 5). The Tongan conception and praxis of ta and va, ‘time’ and ‘space’, critically govern the arts of fineal and spatial intersection from which lalava comes. In an anthropological dimension, tufunga lalava can be related to aesthetic concepts and practices of particular and universal significance.
While *ta* may generally be less significant than *va* in Tonga, they are of equal currency in formal social and aesthetic contexts. This is critical in the performance of reciprocal social obligations and creations to do with beauty and harmony.

Like the world over, both *ta* and *va* underpin the overall Tongan conception of the practice of art. Not only are the ontological entities, time and space, the medium in which all things are, in a single level of reality, spatio-temporality or four-sided dimensionality, they are epistemologically intensified and reorganized, thereby giving rise to art. Art can, thus, be defined as the rhythmic and symmetrical reorganisation of time and space that produces harmony and beauty. A type of *ta-va*, time-space transformation, art is formally investigative and functionally therapeutic … (Mahina, 2002: 5)

As social obligation, hereditary profession or way of life, *tufunga* were the obligation of *ha’a tufunga* and *jaiva* that of *ha’a punake*. The *ha’a tufunga* class was divided into several subclasses, but all *ha’a tufunga* use intertwining line and space, and all *tufunga* professions use the *lalavu* as their main tool. In fact, all *tufunga* masters will get involved in the construction of a *fale*, along with the whole of society (reciprocal duties). In this highly strung society, the professions are shared and collective: *tufunga tãmaka* are responsible for the elevated platform or the ‘esi; *tufunga tãtongitongi* and *tufunga tongi’akau* for the wood preparation; and women, usually, are responsible for *lãlanga* of coconut leaves and woven mats for wall and roof coverings.

3. *Tufunga* can be juxtaposed with the Greek tekton, but *tufunga* governs all aspect of creating. It is a way of living, a profession important in society. Even the gods are referred to as Tangaloa *Tufunga*.

4. *Tufunga fo’uvaka*, *tufunga langafale* and *tufunga tãtongitongi*, *tufunga tongi’akau* and *tufunga tãmaka* which to deal with ‘akau (wood) and maka (stone). Both *tufunga* fo’uvaka and *tufunga* langafale have more direct connections with *tufunga* lalavu.

5. “Working with kohi or tohi, by way of ta or beating of time, makes lalavu an abstract art form. By extension, *tufunga* la-lavu is akin to *tufunga* tãtatau, body art or tattooing. Although they are differ in subject matter, or space, the former is a work with houses and boats and the latter with sino or the body. Both arts utilise line and space, with kafa sinnet made from coconut fibres and black ink or vaitohi’uli as respective means of interlacing kohi and va …” (Mahina, 2002: 5)
Tufunga masters, as non-academic professionals, are empirically oriented. They draw their inspirations—like their predecessors—from their experiences with their physical and social environment. With ancient lalava, masters ingeniously created abstractions of real life and everyday in many kupesi or lalava patterns with direct connections to the lashing of boat and house construction.

In “Rappel a l’ordre: The Case of Tectonic” (1990), Frampton discusses Semper’s “theory of formal beauty”, which viewed architecture as an “ontological world-making art” despite its “static representational form” (5). This applies not just to symbolic form, but also to the urge to strike a beat, string a necklace and, in this case, perform the lalava. Semper also regarded architecture, together with dance and music, as cosmic arts, in contrast to painting and sculpture. This concept has a parallel in the conception of Tongan art, where tufunga (material art) and faiva (performance art) stand side by side: the making of cloth (koka’anga) is always accompanied by singing and chanting. This explains the unity and execution of reciprocal duties among the social groups taking part in the tapa-cloth making, where ta and va are both practiced. Performance by singing creates the ta, and tapa-cloth making brings about the social va between the participants.

From an anthropological perspective, the Tongan concepts of “such things as the sky, the human body, and social practices such as lãlanga (weaving) and koka’anga or ngatu-making” are all “associated with the lineal and the spatial” (Mahina, 2002: 5).⁶ Lalava is a term made up of two words, lala and va. This two-word scenario is a common occurrence, especially in the language of art, crafts and society. Lala means to intersect, as in the

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⁶ “The celestial bodies in the sky or outer space, or vavā, were treated as kohi ‘a velenga, where the points of spatial intersection of imaginary lines form the actual stars and galaxies, of value to navigation and voyaging. In fact, kohi is the older form of tohi, hence tohi-tohi or kohikohi. The word tohi applies to lãlanga and koka’anga, especially when making dried pandanus leaves into fe’unu or fine threads or fibres for weaving, and painting over printed kupesi using koka and tongo ‘black-dye’ made from treated sap of koka and tongo trees, which are known as tohi lãlanga or tohi ngatu respectively.” (5) There are parallel analogies.
intersecting of two or multiple lines (kohikohi). Thus kohikohi is a multiple intersecting of woven cords (coconut sinnet) in lashing, black-dyed koka and tongo in tapa making, lining threads of leaves (feʻunu) in weaving and line productions with black ink in tattooing.

Mahina (2002: 6) states that, “in its ‘pure’ form, the word lala evokes a pristine state”—harmony; and that “the notion lala lies in close proximity to the concept noa, meaning a zero point, which depicts a state of nothingness, emptiness or formlessness” (6). A number of contradictory yet intersecting tendencies are counter-poised, giving “rise to unity, harmony and beauty” (6).

In “Rappel a l’ordre” Frampton also refers to The Tectonic of the Hellenes, by Karl Boetticher (1843). Boetticher regarded construction as an appropriate interlocking of two constructional elements. These conjunctions are seen as body forms, simultaneously articulated and integrated. This not only guaranteed the finish of the building material, but also enabled form to acquire symbolic meaning. Boetticher then distinguished between “structural nucleus” and “decorative cladding”, in which “decorative cladding” somehow symbolised the status of the “structural nucleus”. In the lalava of the fale, the interlocking of the constructional elements can be easily fitted into Boetticher’s position. The lalava reiterates the symbolic, and aesthetic, of the fale’s tectonics by further intersecting the intersected constructional element. According to the lalava master of the Fale Pasifika, University of Auckland (2004), Filipe Tohi,

the kafa sinnet used is normally in kula or red and ‘ula or black, the spatio-temporal intersection of which eternally reproduces four-sided dimensionality, the colours symbolise men and women, who are physically united and genealogically related in time and space, and connected through procreation … (cited in Mahina, 2002: 5)

In fact, the old Tongan term for copulation and sex is lala, and symbolises the physical ‘intersection’ between male and female, in all animals—but particularly between women and men. Referring to Pierre Bourdieu’s analysis of the Berber house (published in 1969), Frampton points out that the Berber house itself constitutes a cosmos in the way in which its tectonic order unites language and the collective beyond the house itself. It is possible to explain certain aspects of the fale, the lalava and their relationship with the wider society in this way. On the other hand, Semper’s “Conception of Style” points at ancient monuments and constructions, emphasising that “they are the free creations of men, who employed understanding,
observation of nature, genius, will, knowledge and power” (in Rykwert, 1982: 129).

Following Semper, one could say that fale are microcosmic and mirror the law of nature—while not necessarily following natural law. Rather, they are the products of the collective, of society, exactly in the same way as language.

Conclusion

Like other Tongan or Polynesian art, within a system of cultural knowledge the tectonic of the fale as a whole remains highly aesthetic. Its construction, from the elevated platform to the roof, involves the whole community. What is created in the fale’s tectonics reflects people’s ways of living, their culture—not just within the confines of the fale, but within society as a whole.

As an analogy, the fale could be put alongside the Berber house, with the Berber house being stereotomic and the fale very ‘monolithic’ and uniform. However, with all due respect to Frampton and other followers of tectonic theories, the fale requires special treatment and special analytical tools. Its ethnic domain must be approached, and heliaki must be considered, in order for this architecture to be understood. For example, the fact that the tufunga lalava intersected tufungafu’ovaka and tufungafangafale might not only confirm that the tectonic of the fale is based on the vaka, or boat, construction. It may also explain the role of an up-turned boat hull as current metaphor for the fale concept.

Lalava, then, is not only a structural necessity for the tectonics of the fale, but also an abstraction of society. Lalava can, indeed, be put alongside the knot as a primordial mode of the tectonic, as Semper conceived it. It is a variety of the knot, a record to hand down cultural knowledge.

The lalava of the Fale Pasifika, although not structural (due to Building Code requirements), still echo the main essence of lalava. Here, the functionality of the lalava is far removed (non-structural), but its recording mode and ideas are still present, its messages still as a powerful as in ancient lashing. The patterns created in the Fale Pasifika depict, according to Filipe Tohi, the Lalava master responsible for the lashing, abstractions not just of academic relationships between Polynesian communities. The work knows no ‘geo-political boundaries’ and it relates to everything in Oceania. The Fale Pasifika is a modern fale, highly contemporised to fit modern requirements, intended not just for Polynesian students but for all of New Zealand and for a wider global audience.

Lalava in context is a philosophy, a way of life, which is vulnerable to changes, which are of course part of modern society and technology. But these changes can, as seen in the Fale Pasifika, also provide sustenance to Pacific cultures.

Glossary of Tongan terms (Mahina, 2002)

<table>
<thead>
<tr>
<th>Term</th>
<th>Description</th>
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<tbody>
<tr>
<td>faiva</td>
<td>Lit. to do time and space; performance art.</td>
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<tr>
<td>fale</td>
<td>Lit. Tongan house.</td>
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<tr>
<td>fe'unu</td>
<td>Noun: fine threads; ‘line’ made from dried leaves for weaving; verb sliding along, or readjusting of more than two things; refers to ladies taking position in weaving large mats.</td>
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ha’a Professional class, usually hereditary professional class.
ha’a punake Class of performance artists.
ha’a tufunga Class of material artists.
heleiki To say one thing and mean another; Tongan proverbs; punake’s profession.
kafa Sinnet made from coconut fibres; ‘lines’ for lineal-spatial intersecting.
kohi Line; writing; older form of tohi.
kohikoiki Multiplie lines; writing; older form of tohitohi.
koka Black dye made from treated sap of koka trees.
koka’anga Bark-cloth; tapa-making; ngatu-making.
kula Red, brownish colour.
kupesi A design, a blue print, a pattern.
lala Older term for sex, copulation. Also used as pristine, or nothingness place.
lālāngā Intersecting of line and space; mat weaving.
lalava Intersecting of line and space; kafa lashing.
noa State of purity, harmony and beauty.
ta Time; tempo; beat; rhythm.
tongo See koka; black dye made from treated sap of tongo trees.
tufunga Lit. ‘to do time and space’; material art or artist.
tufunga fo’uvaka Art of boat building, boat builder.
tufunga lalava Art of intersecting line and space; lineal spatial sculpture; lashing master; lalava master.
tufunga langafale Art of house-building or architecture; house-builder; master builder.
tufunga tānaka Art of stone cutting; stone sculpture.
tufunga tātatau Art of symmetry-beating (of body); tattooing; body sculpture.
tufunga tātongitongi Art of wood carving; wood sculpture.
tufunga tongi’akau See tufunga tātongitongi.
‘ūti Black.
va Space; social relation.

References