



Talapady House(2019-ongoing): Wall Casts to test the design, seen in the context of a tile factory in the process of demolition
Mangalore, India © A Chatterjee & A Sumra
(Arijit Chatterjee and Asha Sumra. *Making and Breaking: Talapady House*. Mangalore, 2020: <https://architexturez.net/doc/az-cf-193632>).

Translations

“To translate is to convey. It is to move something without altering it. This is the original meaning and this is what happens in translatory motion.....Yet the substratum across which the sense of words is translated from language to language does not appear to have the requisite evenness and continuity, things can get bent, broken or lost along the way.”¹

¹ Robin Evans, *Translation from drawing to building and other essays* (London : Architectural Association, 1997).

Moving things from one place or condition to another is a form of translation²: a dynamic and potentially transformative conveyance. *Translations* is part of an ongoing exploration to uncover and reactivate making and exchange within the terracotta industries in South Asia and Europe. The point of departure is the relationship between the spread of a system of beliefs(*the word*) and a system of building(*the work*)³ that was exercised through the Basel Mission Industries on the Malabar coast, India(1834-1914). Encounter between the European Mission and local conditions resulted from and in processes of exchange, through spreading the Protestant word in local languages(printing); textiles(weaving) and a system of building(terracotta roof tile). Each of these industries disrupted local practices, imposing industrial processes in the name of efficient and disciplined systems of society and labour. By enacting an ideology of *work as worship* that was core to their Pietistic beliefs the Mission literally and metaphorically translated the word into work.

Such interactions refuse to conform to a reductive definition of expressing the sense of (words or text) in another language⁴ and call instead for a nuanced interpretation that encompasses both a linguistic and a dynamic definition. Including *translat-* ('carried across')⁵ allows us to perceive translation including and beyond interpretation, resulting from movement and change: in environments, practices, materials and values. Focusing on the tile-industry and the changing role of clay, the pieces presented explore encounters using three interwoven threads of translation: discovery, reflection and appropriation.

Disruptive Encounters: *Architectural Salvage*

As a mode of discovery, the work deciphers the meaning of disruptive encounters through how things are made and how they are taken apart. In the case of the terracotta roof tile, the German Missionary engineer George Plebst(1823-1888) carried ideas of tile-making to India from France and Germany, arriving at the Basel Mission and later Mangalore Tile which bear close resemblance to the Gilardoni and Marseille patterns⁶ respectively. The interlocking tile disrupted hierarchies in construction, causing a widespread shift from thatch and semicircular country tiles to a system of tiled buildings that overrode social class and building type⁷. This constructional shift is comparable to the impact of the Copenhagen Fires of 1728 and 1795 which triggered a slow transition from thatch to tile, and half-timbering to masonry⁸ and were instrumental in the growth of the brick industry in the 18th and 19th centuries. Both situations mark a transition from dense layers of material towards stacking, binding and interlocking of elements. Such tectonic changes coincide with mechanization in the service of mass production of clay products for construction: shifting the role of production away from the hand towards the machine, whilst still making products that are defined and assembled by the hand. These transitions relate materially to the Rundetårn: the transport of bricks from Lower Saxony in 1637 predates the specific material histories of the Mangalore tile, but embody the translatory movements of extraction, production and building that defined each clay construction.

² Oxford Dictionary of English.

³ "Man's need to communicate – and his urge to impress a mark of human order onto the world around him – is the foundation of architecture as it is of culture as such" Mari Hvattum, *Gottfried Semper and the Problem of Historicism* (Cambridge University Press, Cambridge, UK, 2004); 30.

⁴ Oxford Dictionary of English.

⁵ One of the definitions of translate is to move from one place or condition to another, from the Latin origin *translat-* 'carried across', past participle of *transferre* (Oxford Dictionary of English).

⁶ Varman, R. V. J. *The Marseilles or French Pattern Tile in Australia*. Sydney: Australian Society for Historical Archaeology, University of Sydney (2006), 25.

⁷ Duarte Barbosa, *A Description of the Coast of East Africa and Malabar in the Beginning of Sixteenth Century* (London: Halykut society, reprint 1970), 134.

⁸ Niels-Holger Larsen, *Bornholms Industriehistorie 250 år* (Bornholms Museum, Februar 2005), 23-24.

In a context where the role of terracotta within contemporary building culture has predominantly shifted from structural to superficial, core industries have reformed or dismantled leaving tangible and intangible residue of factories and the products they made. Research in this context is a form of salvage: attributing value to material and knowledge when it is no longer deemed fundamental to the system that created it. Through materials, products, moulds, models and images, the work manifests a series of tectonic translations that mark a constructional shift and/or appropriate the residue of these industries.

Beginning with a reflective process, the research questions the role played by the tile factories *as architecture*, and their role in creating products *for building*. This relationship between environments and resources is the foundation for investigating both the historic role of the flourishing factories and the potential for appropriation with a contemporary context of decline. Turning factory processes towards the factories themselves: clay product-making processes of casting and mould-making are used to explore the architecture of the first Basel Mission Tile Factory at Jeppu, Mangalore (established 1865). This factory is characterised by the tectonic balance between heavy and light. Anchored by the kiln, the structure becomes increasingly lightweight as it rises, moving from the ground floor kiln and masonry columns to the timber structure of the first and second floors, permitting the rise of hot air to dry the products stacked above. Tapered brick walls wrap, enclose and house the processes and machinery within and counterbalance the upper floors. What appears at first as a heavy clay building, is in fact a lightened load that balances timber, steel and clay and houses the dynamic infrastructure to make roof tiles, bricks, drainage pipes and homeware.

Following the roof tile, we find traces of the same tile pattern as the Mangalore tile industrial clusters from Marseille to Melbourne, and Niderviller to Knabstrup: revealing an inherent connection between disparate destinations that goes beyond a mere transfer of technology. Patterns and practices were imposed on local resources: both in clay and human labour. Construction reveals imprints of these movements, and the project aims to unravel their deeper meaning.

Making & Breaking

Recurrent demolitions leave behind traces of materials and techniques ripe for appropriation. Further investigating the reciprocal relationship between environments and resources, the exhibition interweaves fragments of three built projects that appropriate the material, infrastructure and processes of the tile industry.

Office for the Commonwealth Tile Factory, Jeppu, Mangalore⁹ is built for the first Basel Mission Factory, founded after the development of the Mangalore Tile (1865). With the tile industry in severe decline, the building seeks to provide an impetus to the factory and terracotta industry by housing staff and demonstrating use of new and old products and infrastructure. Using industry resources to make an environment comparable to an oversized clay pot, the building synthesises key ideas underlying the original Swiss-German factory:

Factory infrastructure is used to make six new solid and hollow bricks for a bespoke brick bond designed to keep the building cool, whilst excluding snakes, mosquitos, damp and dust. The bond makes thick walls with varied air cavities, creating a notable temperature reduction between outside and inside and eliminating need for air conditioning in the hot/humid climate. Consequently, the bricks have been used by a variety of regional builders, intentionally reinvigorating the factory. Voids of internal walls are spontaneously appropriated for hanging boards, pictures,

⁹ Chatterjee and Sumra, 2019.

umbrellas and storing paper. Employing residue, walls use brick dust to make lime mortar, allowing the building to breathe, and floors use crushed terracotta aggregate. Massive kiln bricks are appropriated for paving and lighting external spaces. Construction was primarily executed by unskilled labour, lending the project rawness true to the essence of the factory. Structured by perforation and play, the building manipulates a simple pitched form to create a sequence of spaces designed in dialogue with the historic factory, and the estuary and sea beyond. Taking cues from tectonic balance of heavy and light observed in the original factory building, the new office creates thick masonry brick walls, lightened by the combination of solid and hollow bricks. The rooms and water tower are set as blocks, acting like giant red bricks with voids in between. The blocks support a lightweight steel roof clad in the terracotta ceiling and Mangalore tiles - the previous livelihood of the factory.

*Talapady house*¹⁰ is constructed through a process of making from breaking. The building emerges from the remains of demolished tile factories – the material residue and ideas stimulated by the factory environments and their demolition. These materials and ideas are moulded to create a refuge from residue. The house is designed as two units for a large extended family:

1. A Garden within a House
2. A House within a Garden

Bricks, broken terracotta and timber are all salvaged from the factories to form the primary building materials for the house. Residue of material and ideas is carried forward from one site to the next. Reclaimed wire-cut, kiln-fired bricks are designed to create tapered walls that get lighter as they rise upwards from the wide foundation. Reclaimed hardwood will form the structure of the pitched roofs and be used to make fenestration. As factories are being demolished on a daily basis and more materials are discovered, their properties are analysed and they find a specific use within the construction. Quality hardwoods such as *terminalia tomentosa*, *terminalia elliptica* (Indian laurel, banpu or matti) and *hopea parviflora* (ironwood or bogi) will be used for the timber columns, beams, doors and windows. The result is a fluid, spontaneous and ever-evolving design process.

*Chennaitodi Goatshed*¹¹ appropriates bricks, brick dust and timber joinery techniques from one of the few remaining tile factories in Mangalore to make a farm facility to house goats, store coconuts and provide onsite accommodation for the farm watchman. Barbeque bricks (commonly used for drying coffee beans) and hollow bricks are laid using a brick dust mortar; a chimney is constructed to heat water in traditional copper pots and to provide a wood-fired oven for cooking; and found terracotta objects appear periodically within the structure. A timber truss is designed based on observations of local hardwoods, and timber construction to create a long-thin roof that appears to hover within the 23-acre farm of 1000 coconut and areca nut trees and 12 goats.

The pieces are presented as assemblages that deliberately overlap projects to reflect the reality of ongoing appropriations. Ranging from the spontaneous to the predesigned, each translation manifests disruption to cultural, tectonic, social and environmental conditions. Conceived to accommodate inherent materiality, the assemblages carry material histories and suggest a system of building and ideas beyond their immediate role as an artifact. The way they are made embodies disruptive encounter expressed through the collision of materials and parts.

¹⁰ Ibid, 2019-ongoing.

¹¹ Ibid.

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