

2023-1

A Stereotomic Struggle

Jim Roche

Technological University Dublin, jim.roche@tudublin.ie

Follow this and additional works at: <https://arrow.tudublin.ie/bescharcart>



Part of the [Architectural Engineering Commons](#), [Architectural History and Criticism Commons](#), [Art Practice Commons](#), [Historic Preservation and Conservation Commons](#), and the [Other Architecture Commons](#)

Recommended Citation

Roche, J. (2023). A Stereotomic Struggle. RIAI (The Royal Institute of Architects of Ireland). DOI: 10.21427/5TGY-D430

This Other is brought to you for free and open access by the Dublin School of Architecture (Former DIT) at ARROW@TU Dublin. It has been accepted for inclusion in Articles by an authorized administrator of ARROW@TU Dublin. For more information, please contact arrow.admin@tudublin.ie, aisling.coyne@tudublin.ie, vera.kilshaw@tudublin.ie.



This work is licensed under a [Creative Commons Attribution-NonCommercial-Share Alike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

A stereotomic struggle

AAU Anastas

15 December 2022

Trinity College Dublin

Review by Jim Roche MRIAI

Stone in architecture has “territorial and political implications” as its use and designation impact the human rights of the indigenous population. The craft of stereotomy is not just bequeathed from the Crusaders or more recent imperial colonists but has a diverse blended history that is deeply ingrained in Palestinian built culture. Such theses inform the experimental work of Elial and Yusef Anastas, two brother architects who operate from Bethlehem what they term a counter hegemonic practice with the stated aim of “decolonising architecture”.

Their research project *Stone Matters* recognises the fusion of both imperial and local knowledge and seeks to blend novel, parametric design and computational simulation with local age-old stereotomy in their search to define a contemporary, local stone architecture that they hope could have global influence. They strive to use stone as an intrinsic structural material, thus retrieving it from its ubiquitous use as cladding. Arguing the environmental case - as the West Bank has this material in abundance - they noted at their AAI lecture in December 2022 that “stone is a fundamental part of the Palestinian way of life” and that working with it “reduces the pace of territory consumption and gives other possibilities for architectural morphologies.”

These morphologies are structurally challenging, playful and quietly serene. Presenting them, as they did in part, with a sonic performance – a practice they developed with other radio enthusiasts during the Covid lockdown - added a surreal atmosphere. They creatively combine video and radio in presentations of their architecture, proffering these as a new form of protest, what they call a Sonic Liberation Front.

One such built iteration of this research is a filigree geodesic 12-centimetre deep, 7-meter-wide dome (Fig 1) constructed from 300 specially formed mutually supporting cut stones outside the ancient city of Jericho. The dome’s assembly was unique too – using timber scaffold and specially formed polystyrene moulds, slowly removing them to allow the dry jointed, interlocking stones to settle into place.

The *While we Wait* (Fig 2) sculpture installed at the V&A Museum in London and later surreptitiously erected at night in Area C of the West Bank, where construction is forbidden by the occupying colonial power, is a light filigree of delicately carved interconnecting stones from different areas of Palestine, “fading upwards from earthy pale to red limestone”. Images combined with music, local birdsong and the rumbling of bulldozers eerily capture the ambiguous fragility of building in Palestine especially as removing one stone from this elegant sculpture will collapse the whole edifice – a metaphor perhaps for the constant threat of violent demolition faced by the indigenous population.

The brothers’ *All Purpose* installation (Fig 3) at the 17th International Venice Festival is an intriguing composition of interlocking carved stones, self-supporting in part, held up with smooth, perfectly formed slender stone columns in what appears to be a flat vaulted sculpture.

The joints in the almost flat vault are not a perfect fit, possibly purposefully, allowing glimmers of light through the amoeba-like shapes, emphasising the Ruskinian-like making of each part.

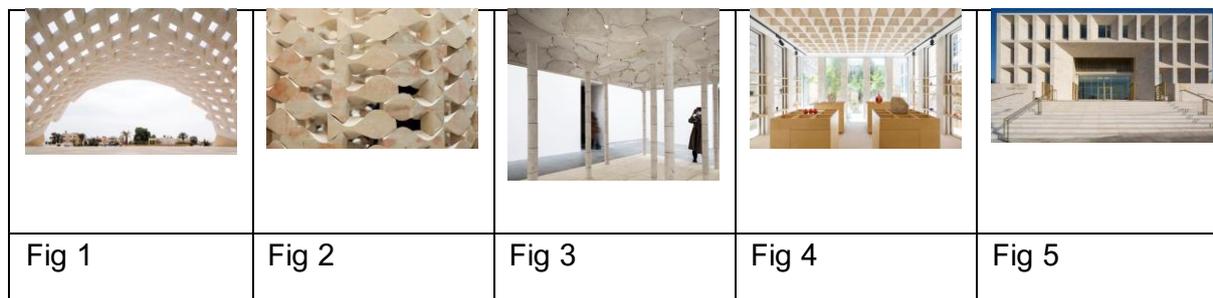
The structural properties of the material are stretched to even further limits in a new shop in a 12th century Crusader Abbey in Jerusalem, where 169 interlocking limestone voussoirs are carefully modelled and literally woven together in a flat vaulted roof enclosing the 60m² space (Fig 4). The result is uncanny, recalling seminal elegant concrete roofs such as Kahn at Yale or Fehn in Venice, and prompts the question - *is it really made from cut stone?*

Their less experimental work such as courthouses in Toulkarem and Hebron and the Edward Said National Conservatory in Bethlehem, express a more orthogonal and restrained morphology, thus raising the question as to the possible limitations of their experimental stereotomy to buildings of a certain scale and typology. Can their experimental and intellectual approach to stereotomy and morphology work for bigger buildings, with their concomitant, challenging structural and economic demands?

The practice also undertakes polemical works; one exhibition with others “representing imaginaries of return and of democratic spatial organisation” in contrast to the spatial restrictions imposed by the occupying power.

The erasure of Palestinian space - in what sociologist Sari Hanafi terms *spacio-cide* - by the infrastructures of the apartheid policies of the colonial occupier are incontestably documented by multiple scholars, including architects, and worldwide respected NGOs. In such a suppressive spatial context it is debatable as to how much a creative indigenous architecture such as that practiced by the Anastas brothers can contribute to a political narrative for social justice, not alone decolonise the architecture of the oppressor. However, in a land where the indigenous population is so often barred from building anything – over 90% of Palestinian planning applications in occupied East Jerusalem are refused - suffer regular demolitions and the appropriation of its land for illegal settlements by the occupying colonial power it is truly optimistic to see such architectural work of elegance, defiance and resistance by two home-grown, brother architects so dedicated to their craft.

In that sense - *La Lutte Continua* on multiple fronts.



1. *Stone Matters, Jerricho* - <https://www.stone-ideas.com/57056/stonematters-by-aau-anastas-is-a-self-supporting-limestone-vault/>
2. *While we Wait* pavilion - <http://aauanastas.com/project/while-we-wait/>
3. *All Purpose* at the 17th International Venice - <https://www.archdaily.com/964183/aau-anastas-explores-stones-potential-for-contemporary-design-at-the-2021-venice-architecture-biennale>

4. *The Flat Vault*, Crusader Abbey in Jerusalem - <https://www.commercialinteriordesign.com/projects/41397-aau-anastas-designs-gift-shop-as-a-stone-vault-extension-of-crusaders-built-monastery-in-jerusalem>
5. Courthouse, Toulkarem - <https://www.domusweb.it/en/architecture/2019/01/02/stone-matters-the-architecture-of-elias-and-yousef-anastas.html>