DESIGNING WITH STONE
Part A - The Stone Itself
- optimising spatial experience one stone at a time

by **true stone design**
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Many property owners love stone.
Some even choose to include it in their home.
Such a decision throws up a multitude of questions:
Which stone?
Which colour?
Which style?
How much will it cost?

These are all fair questions. But are they the only ones?
Or the most important ones?
Following here are offered some style options for an owner to consider for their project, but also some *thoughts to think* on the way to an architectural stone outcome that serves an optimal experience of space.

THE STONE ELEMENT ITSELF
5 Elements of Optimal Stone Design

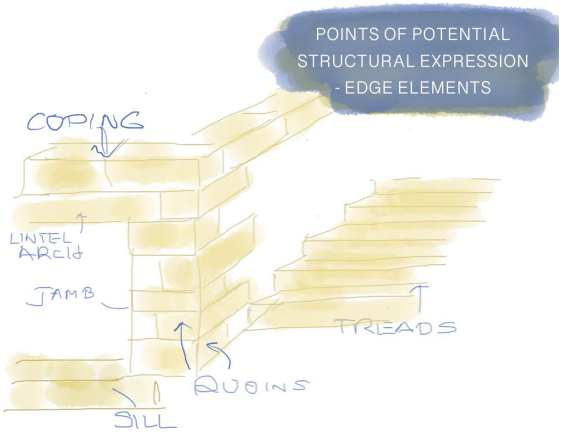
1. Stone Selection
Colour - Everyman's (and everywoman's) favourite question
Selection is about much more than colour.
Strength and structural Consistency are at least as important.

2. Gauging and Proportion
Gauging is the arrangement of pieces with each other and with the stone element as a whole. The stones must be gauged so that they **bond** (overlap) with each other.
Proportion is the relationship between each of the three dimensions, length, depth, height.
(In puzzles of proportion, when clarity is sought regarding an ideal length to width ratio (eg a floor plan), or a course to depth ratio (eg a stone) remember the *Golden Ratio*. The ratio closest to *1 to 1.619* is likely to be 'golden'.

3. Texture
Texture is akin to a **'4th' Dimension.** It offers options achievable by hand craft.
The 'Mark of the Hand' is a value often discussed in architectural circles, but also shunned in architectural practice.
It can be time consuming, but adds human resonant value through the life of a building.

4. Structural Expression

The sense that a stone can hold at least itself up. Horizontally proportioned mass, solid edge details (see diagram below)



5. Architectural Resonance.

- Architectural Resonance. Do the details resonate with the narrative of your space? Do the parts harmonise with the whole?
- The details serve the theatre of space. The story may be complex. Ideally it is. But it also needs to be coherent at least to the occupant. Image below Can Lis by Jorn Utzon.

<u>Designing with Stone also includes:</u>
Part B - Thresholds hold Space, and
Part C - Summary and Case Studies

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DESIGNING WITH STONE
Part B - Thresholds hold Space

Thresholds are not just for doors, also for thoughts.
There are some lines never to be crossed, but there are some thresholds that must be crossed. It is arguable that good design necessarily involves *'wrestling with thresholds'*.

1. Subjective/Objective Spatial Experience Threshold

Could Beauty be Objective? It is conventional wisdom that 'beauty is in the eye of the beholder', but what if optimal spatial experiences could be envisaged, designed, and crafted with conscious design?

Christopher Alexander, explored such a concept in his life work. 'Pattern Language' https://youtu.be/VZHb9-Y9r_E
and his hands on artisanal course - Building Beauty. https://www.buildingbeauty.org/foundingprinciples/#principles.

Does beauty have objective definitions? https://www.theguardian.com/artanddesign/2022/mar/29/christopher-alexander-obituary

The basis of Alexander's Pattern Language came from observing medieval cities. All were designed to local regulations but allowed the architect (or artist; or designer; or simply, person) to adapt each room, level, and building to particular situations.

https://www.designsystems.com/christopher-alexander-the-father-of-pattern-language/

2. Practical/Expressive Threshold

Vitruvius was Caesar's architect. He saw three crucial aspects to a successful design
Firmitas Utilitas et Venustas. Structure, Function and Delight.

It is arguable that well-detailed architectural stone floats simultaneously with all three.

William **Morris,** one of the founders of the Arts and Crafts Building movement (that ultimately migrated to Australia), had a maxim for home design:
"Have nothing in your home that you do not know to be useful, or believe to be beautiful"

https://www.britannica.com/summary/William-Morris-British-artist-and-author

3. Spatial Experience/Cost Threshold

There is a perennial struggle across the thresholds of Budget.

i) **Dream Analysis aka Assumptions of Mass** - We tend to dream of things that are beyond our means. We owe it to ourselves to deeply analyse our architectural dreams, to discover what is essential, and what is mere assumption in them. Under analysis our pared back *core desire* may be affordable. Do we really need 5 bedrooms, 3 bathrooms, and 10 garages on 100 acres, for instance?

ii) **Prioritise** - Pass all cost decisions past the Spatial Experience Priorities
- Reduce scope - Does the project need to be large?
- Reduce fussiness - Does the detail need to be so neat, so fussy in detail?
- A human being can spatially experience only *one room* at a time.

iii) **Reduce Structural Overlap** - Many modern stone projects apply stone to a Base Structure of other material, often concrete. When building with structurally expressive stone dimensions, there are potential economies in reducing base concrete structure.
Stone Stairs are a context where ideal solid stone dimensions often do not need concrete structure. Don't *'over-structure'* prior to adding stone. Images below depict solid dimensions without concrete. A functioning drainage system is more important than concrete. Images below depict structure without concrete.

iii) **Reduce material costs**
Mix up stone with other resonant materials, such as timber and corrugated iron. Image depicts stone to sill level, facade superstructure to be clad in weatherboard with hardwood jambs and lintels.

iv) **Divide project into Phases,** to reduce immediate cash flow pressure.

v) **Reduce contractor** dependency, by DIY craft or DIY with family and friends. Some people find craft intrinsically rewarding.

CONCLUSION
Stone is complemented by craft.
Craft choices are amongst the crucial design decisions on the way to optimal spatial experiences.