

The Fifteenth
Lesson.

The Photolithie.





The hospital, when bought, had been continuously occupied and over-built for nearly 200 years. The facade was 19C but the buildings behind it were a labyrinth of ad-hoc 20C additions which it was aimed to demolish.



The mid-19C facade and Ward blocks were all that the Historic 'listing', along with the Donors, wished to retain. The University Surveyors, having neither money to contribute, nor architectural taste, kept quiet.

Few real opportunities for a radical breakthrough ever occur.

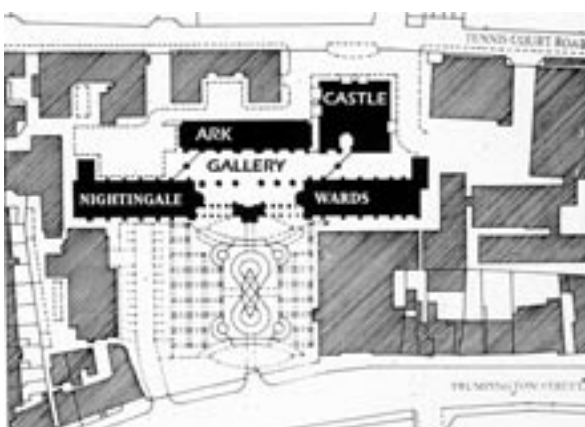


The University Estates Office aimed to build an urbanistically illiterate bungalow-structure on Tennis Court Road to act as a break - bulk delivery and refuse store for Biochemistry. Several well-established Architectural Consultants had been appointed by the Estates Office. But none of them had been able to relate new floor-plates to the tall, 'hygienic', ceiling heights of the 19C Nightingale Wards.

The Judge was one of them.

The culmination of years of laboured calculation, the project began in the muddled chaos typical of the hand-to mouth comedy of contemporary urban 'planning'. The University bought the old hospital site, to demolish it all for car parking - prior to building anew. Professor David Watkin, and other devotees to Architecture in Cambridge, campaigned to have the main facade, and Nightingale Wards, preserved as 'historic' (they were 150 years old and described by Pevsner as 'undistinguished').

The main purpose of the 'Historians' was to prevent a new building of the level of architectural squalor plumed by Cambridge University in the late 1980's - such as the Pharmacology Faculty. After it was listed, no one could work out, for years, how to convert the giant hulk. JOA solved it by overbuilding a site earmarked for the use of a break-bulk dustbin-store for Biochemistry. By enlarging the site footprint JOA were able to shoehorn-in in a very narrow 'atrium-gallery'. By lowering the ground floor by 45 cm (1'6") we could fit two new floors to every 19C floor. The 'Ark'-building, which backed-up to the student hostels had to be low. But being half the height of the Atrium, we planned its roof as a 'rafted garden' (as condemned by Seneca!), that would let the morning sun into the Gallery interior.



With the 6th Order, the 'old' structure and the 'new' structures become a novel unity. All other design cultures 'hang' between the future and the past. The 'Present' is unconsummated.



The mid-19C design at the Jubilee of 1910. Pevsner judged the centre 'weak'. Small windows resemble toilets on each side of the suburban 'bay-window' of a front door.



The 1990 Faculty of Pharmacology, Not even a 'business park' would allow such a barbarous design.



The project began with everyone determined to remove the subliterate 20C Attic. Yet it would have been impossible to get permission to rebuild this, the choicest 'Attic' space in Cambridge. It had very rare views out over the famous 'Backs' flanking the River Cam. So why lose it?

The 20C Attic was not liked. It had to go

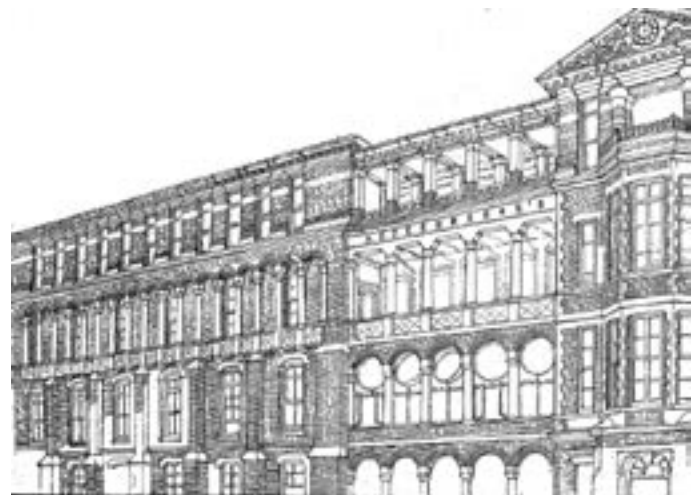
Renaissance theorists gave 'parts of Architecture' Greek names to elevate their status. So why call the stumpy storey-height of the children and domestics the 'Attica' (the county of Athens)? The reason is that this 'roof-storey' is the cargo of the Entablature - the raft which carries the Ark of the colonists to its 'Ararat' upon the main body of the building. It is the housing of the primordial, the foundational and the original.

To make this identity patent JOA added a bed of ashes and leaves to bed-down this primordial 'arrival'. For it is both Hestia's cone of ashes, the hearth-fire, as well as the 'raft of twigs' that carries the fragile 'golden germ' of the Founders to the place (of the Project) where it cataclysmically unites with the 'genius loci'.

The Entablature should, of course, be located under the Attic so that it supports it as its precious cargo. In our case, this proved impracticable. The 'raft' is seen coming to rest on the building, into which the Attic is subsumed. Levi-Strauss allowed narratives an elasticity of sequence. It was enough for the components to be 'presenced'.



Built both before and after the 1914-'18 war, the top floor of brick 'portacabins' could have been set down into a green field for all of the (too common) unresponsiveness of their Architecture to their Urbanistic position.



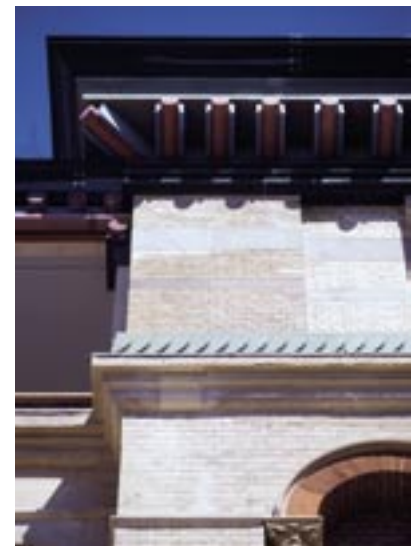
The 20C superstructure was retained, saving some £M2 of raw construction, merely by adding a cornice scaled to the height of the whole facade, and a base to the storey. The Journal of the Conservationists commented how 'rare' it was for an 'Unashamedly Modern' addition to fit so well with an 'old' structure. A sad comment indeed!



The 'cone of Hestia', that is the hearth, contains the 'fiery germ' of the original idea of the Promoters, and is itself supported, over the chaotic ocean of circumstances, by a makeshift 'raft of (canonic) tabellae' - described by Mark Jarzombek in Alberti's 'Dream of the River of Life'.



A pedestal of green 'leaves' resting on a bed of ashes, was added to reduce the height of the attic floor.



They ran like the waves of a Meander under the fiery cores of a 'trabica' that supported, in its turn, the green cavetto of the 'New Earth' of the Foundation

It was understandable that the Conservationists should be surprised.

In 1994, the year of the Judge's completion, I was invited to the First Year to act as the External Architectural Examiner at the Cambridge Faculty. I fell asleep three times during the Professors' Presentation of their Student's work. I was, it is true, heavily stressed by my Cambridge project - which was visible from the windows of the Faculty of Architecture. But what really tired me was the sight of anyone with a natural bent for Architecture being ejected by an intellectual regime that re-heated ideas that had not developed since their invention, a century ago, during the collapsing Mittel-Europa Ancien Regime cultures of Austria and Germany.

All building materials were reduced to a universal 'stuff'.

Space was de-contextualised.

The Ground, or even, if you like, the Earth, became 'level zero'. I am always tempted to leave my mark on elevators that use this terminology - just to show we are humans, not robots. Anyone who expressed an 'innocent' interest in the ornament, decoration, pattern or colour, found in all Architectures except that of the late 20C, was made to feel as if (usually she) had uttered an obscenity. The objects of attention were 'space, light, surface, texture and so on (one knows the flatulent incantation by heart)'. The idea was to massage these into improbable shapes and accompany this with wads of solipsistic text. It was an exercise to fit the young architect to his future fate - which was to perceive a senseless design solution and garb it in the au-courant 'look'.

What would the graduates of such Academies know of how to combine new and old Architectures so that both conversed with ease and understanding?

And how would they so engineer it that the Architect of the 'Old', were he to return to this day, would not be aghast at the total rejection of everything he and the thousands of Architects before him had struggled to understand and effect? How could these new Graduates so design their work that the Old Architect would, instead, be filled with envy for us who build anew? For that is the only ambition which can be acceptable to a cultured and civilised Modernity.

While dozing I overheard the Professors discussing XX. their most brilliant pupil. "XX", they said, "would, in his second year, probably study the 'presence of absence'. Then in the third year, (leading to his BA), he would 'probably commit suicide'.

The Concrete Industry, keen that infant Architects should learn about cement and suchlike arcana, commissioned the Cambridge Martin Centre, on a budget of £250,000, to put together a Teaching Pack of texts, slides and videos. It so happened that the Judge project was half-built when all the Professors who had the responsibility for teaching about 'concrete' came down to Cambridge to collect this teaching-pack, compare notes, and so on. The C&CA asked me to take the party over the Judge, which was 3/4 built, and give a talk on JOA's coloured and patterned concretes.



FA-TB* Green 'New Earth' through-colour concrete. Blue 'air-sea' through-colour concrete inlaid with 15mm-thick white concrete 'flying raft, Spirals of Janus. Indigo 'colour of shadow (could be darker) microporous painted wood windows set into green-painted wood shiplap. Polyester-coated mullion and light shelves - white above and red below. Limestone concrete window sill to reflect light inwards. 'Cancelli' pattern stock brick spandrel. Dark grey concrete capital clear lacquered to go a 'deep-space' black.



A delivery of through-colour blue 'cyma-reversa' units and through-colour red balcony 'Cancelli' spandrels, waiting to be hoisted into place. I call this material 'photolithic'. It combines the qualities of the pure, ethereal, light (phos) that is chromaticity, with those of dark matter (lithos) which is solid, heavy, mass. The ancient distinction between surface and body, appearance and reality, is now, by this technology, abolished.

*FA-TB=From Above To Below

*FB-TA=From Below To Above

After our return from Site, over sandwiches, it became apparent that **nothing of the sort JOA had developed, and which had been written up, for many years, in the Concrete Journal, was in their new 'pack'**. This 'teaching aid' arrested the surface treatment of concrete in the 1960's when people (like the late American Architect, Paul Rudolph, inventor of the **truly grim Architecture Faculty Building at Yale, which the students had once tried to destroy by fire**), would cast its grey surface into thin, projecting ribs, these would then be **smashed off with a pneumatic hammer**. This gave the surface a more **'arty' look**, like the wobbly lines drawn on the thick paper of watercolourists.



One of the Professors asked: "But John, how do you choose your colours and patterns?"

It was a fair question. I knew that my answer would leave him even more even confused. **Concrete is an entirely artificial material**. This is why the French like it. Its physiognomy is, today, becoming seriously interesting with **concrete that springs like steel**, and so on. One can not play the old Nordic trick on concrete, as one can with wood or stone, and expose its raw surface so as to reveal its 'True Nature'. **Raw cement looks like ashes**. This is because cement is the pulverised cinders of limestone and clay that have been burnt at 1,200°C. **It is a blankness on which the designer must 'write'**. But my own Profession, which reaches its most doctrinaire and pig-headed in its 'high-level' Journals and Academies, had tabooed the study of colour, pattern, decoration and ornament for going-on 100 years. **These very intelligent people knew no properly arguable reason, for choosing one pattern, or one colour, over another - let alone many such, all interlocking, conversing and adding-up to a complex whole greater than its component (merely coloured and patterned) parts. They were not only ignorant of these matters. They observed the taboo upon discovering anything about them with a religious scrupulousity.**

Chastened, I gave an inadequate reply.

Most Schools of Architecture could be closed **without ill-effect on the design of the human livespace**. **They only damage their pupils**. But what would replace them? Faculties of 'construction management' are the most likely candidate. **It is not the Schools that are defective, but their denial of an 'architectural culture' that most of their Professors have failed to study in sufficient depth to enable them to decipher it to the point of passing it on in a way that is useful to the present and the future.**

Several generations of brilliantly clever, but **iconically illiterate**, Professors have now been school-trained.

They authenticate this achievement by obliging each new cohort of students to join them in their proud ignorance. Their graduates emerge knowing nothing of how ideas can be enfolded by the boxy constructions erected by the despised 'Practitioners', or active exponents of their professed medium; They know even less of what the public expects of it.

This polychrome surface should have inscribed the 26M (80'0") high columns of the Gallery proper. The Gallery was, after all, the 'occluded temple' of Alberti which, because of the mediaeval tightness of central Cambridge's narrow streets, was only visible from afar, over the Classical Neo-Grec temples and campus greens of Downing College.

Lunching with its Master, I was relieved to hear that he would not object to the height of my Gallery, which was necessary to cross-ventilate its top as well as to admit a little of the evening light. His only stipulation was that it would sport no crop of silvered exhaust vents, like the biochemistry block next door. I gathered that he, also, was not an enthusiast of the 'High-Tech' version of Modernity. Nevertheless, my nerve failed me and these patterns, which should have snaked dizzily up the biggest columns in Britain, slid down to cower in this tiny street. They remain entirely unknown to 90% of the people who pass down Trumpington Street, and think they know the Judge.

FB-TA An engineering brick (ocean-deep blue) base projects its spandrels. The yellow glazed brick pyramid of the 'fiat lux' is topped by the 'X'-division of day from night, on which floats the green blitzcrete 'raft of twigs' that supports the ashes of the hearth and their inner germ of fire. The hypostylar matrix of the 'extension of airy speech' spreads out over the main fields of the (white Belgian brick) wall as pools of fire and water.*

Secure within the island of our own, self-sufficient, Professional Consultancy (JOA have never enjoyed the indignity of an academic research grant) We were able to avoid the taboos and prohibitions which aborted the birth of a literate Modernity. We could spend 20 years working with sympathetic Building Owners, and aspects of industry of which the Professors knew nothing, preparing for the moment when JOA would prove our ideas in a big, complex, building, in the heart of an A-1 'English Heritage' urban context. We were about to 'surprise the Conservationists'.

Scripting an interior is, while intellectually challenging, no great technical problem. The scripting of the exterior of a building in colour was, in the Atlantic cultures, not done during the rule of the 'Antique' - that is to say between the fourteenth and nineteenth centuries.

After that, a hundred years of hesitant experimentation with colour, between 1850 and 1950, came to a decisive end with the demise of the 'Moderne' (otherwise known as Art Deco) in the 1940's war.

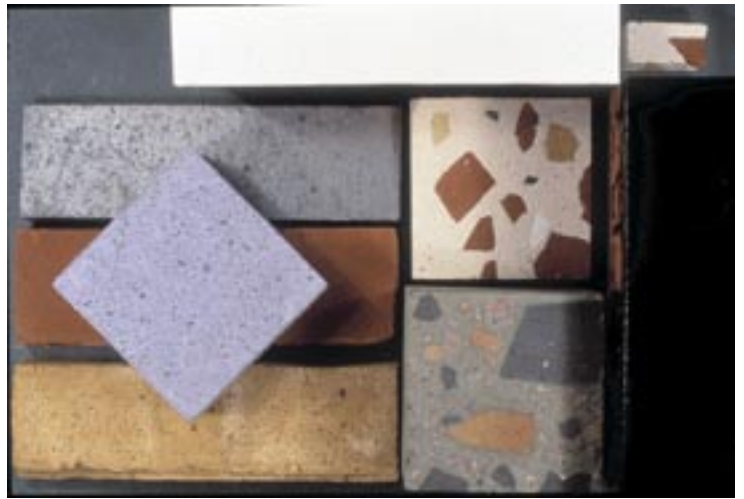
Beginning from an industry capable of nothing, and an Architecture ambitious of nothing beyond MATERIA BRUTA, It took JOA twenty years to research, prove and test, within the commercial industry, the means to build an exterior envelope which was not only permanently coloured, but SCRIPTABLE.

JOA employ three main external materials: brick and through-colour concrete and stucco. Masonry has always been the cheapest life-cycle external surface. It is durable, 'soilable' (it ages gracefully) and needs little maintenance. Brick is more durable than stone. It can be had in almost any colour.

Being already a fired, that is to say a 'glazed' surface, it can be further treated with a fired-on coloured 'slip'. This is a baked-on 'glass' surface 'paint' that will last for centuries.

Stone is a naturally-occurring material and so in limited supply. It is cheap if, like marble or granite it can be cut into thinner and thinner slices and glued to materials like honeycombed aluminium. Solid stone is expensive to shape because it must be carved and cut, though computer-controlled machinery is changing that.

MODERN CONCRETE HAS BEEN, SINCE ITS INVENTION 200 YEARS AGO, THE 'POOR RELATION' OF STONE. ONE REASON IS THAT CONCRETE DOES NOT AGE GRACEFULLY. BUT THAT CAN BE DISGUISED BY ICONICS.



The JOA external walling in kpad. No wall needs to be more than 30% glass. Over 50% wastes energy and reveals the iconic paranoia of late-20C architectural culture - which pursues minimalism at any cost. Bricks, through-coloured, or brilliantly glazed, are the longest-lasting and most cost-effective material. Through-colour concrete has now mastered a light-fast blue. Their combination into broken-brick concrete offers a fabulous palette of colours and randomised patterns.



FA-TB*: Stock bricks in white, sand, rust and grey-blue rest on a plat-band of green 'blitzcrete' over black, yellow and white glazed stoneware bricks. Founding the whole we use a base of well-fired bullnosed Staffordshire Blue engineering bricks. The softwood timber windows are covered in curved aluminium. These are unscrewed after 40 years to factory-renew their dark green colour coating. Note the ground glass modesty-panels and the 'cancelli'-pattern on the floor edge.

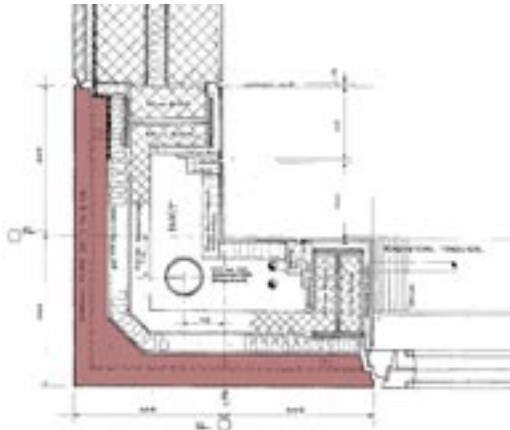
Unlike Brick, which dirties evenly, the surface of concrete is not at all porous. It soon saturates. Any dirt on it is dissolved and carried downwards by rainwater. The same happens with stone, but concrete manages to look worse, streaking and scumming with dried-off dirty rain-water.

JOA's solution to this is rather direct. We inlay our concrete surfaces with strong patterns. The eye (especially the panic-stricken eye of the aniconic 20C Architect), rests on these and not the dirt.

Pattern consists of two parts, figure, and ground. Our Ground is through-colour concrete made with white cement, pigment and, if available, same-colour large and medium aggregate. The Figure is either freeform fragmented (Blitzcrete) brick, or cut brick (as in the 'Masonry Tile'), or the more controlled and deliberate (therefore more scriptable) cement paste inlays of 'Doodlecrete'.



The first use, back in 1981, of 150mm (6") thick 'Blitzcrete' concrete that was made from five different brick types. The bricks were washed, after breaking, to remove dust that would colour the silver sand and white cement background. Stainless reinforcement was held in the grey concrete backing layer. The corner was cast in two continuous pours. 5mm (1/4") is ground off the surface during the short time the concrete is 'green'.



A technical plan of the corner of Wadhurst Park showing the steel frame, insulation & 100mm (4") cast iron rain pipe (for quiet) - a complex modern building is 'civilised'.



The hollow-cored 'Lotus' section, while in Diespeker's yard, being made by David Knowles. He was voted, by the Concrete Society, to be Britain's "Concrete Operative of the year 2000")



A more recent example (sporting a resident moth) of Blitzcrete' for the Millenium Verandah at Wadhurst Park. The surface of this concrete is ground back some 5 mm when still 'green' to expose the bricks. The fragments of brilliant Bayer Cobalt Blue are from bricks baked for me in the Netherlands .



The 3 cobalt blue ceramic 'bricks', from Holland, on a 20-year old, mossy, Blitzcrete table in JOA'S yard..

The through-(cobalt) blue yoked shoulders in the photograph to the right had to be sanded down to remove the impasto of concrete paint that had been applied over the solid blue base. I had ordered the blue to be clear lacquered but the manufacturer judged the changes of colour in the concrete to be unacceptable.

In fact it is the 'imperfections' that show that the material is a variable, cast, product, and are essential to its necessary quality of MASSIVE SOLIDITY.



Refer to Lecture Two pages 2-16 to 2-17 for the extended iconography of the Wadhurst Millenium columns. The lower part consists of the 'Mountain'-base layered in black and white to signify its composition, 'inter alia', of of an infinity of days and nights. It is hollowed-out by the 'Columna Lucis', whose light shines at night from above into the chamber, enclosed by the four legs of the 'Mountain', that once held the 'Dark Sun'. The contents of the Mountain are enflashed by the 'eggs' of clear-lacqered black marble that lie inside the mountainous shape of the 'yoked-shoulders' of the column. the shoulders are blued, with cobalt-pigmented concrete, into the waves of the Ocean of Chaos that covered the mountain before Historic Time was incepted by the penetration of the Columna Lucis. The green 'Lotus' form, of the dry, solid earth, which is the first form to be born out of the initial, submarine, gestation, 'floats' - is born(e) upon the waves.



1.

PROCESS No. 1: MOULD
Only two basic mould shapes: "rectangle" and "square". These, with the **PANELS** are assembled to be used in their respective stages.



PROCESS No. 2: MOULD INSERTS.
Each of the different options: types: "Square", "Rect", "Circle", "Hex" etc. Two kinds of mould inserts. These have patterns to show in relation the shape of the brick/tile and that will be ground off after demoulding.



2.

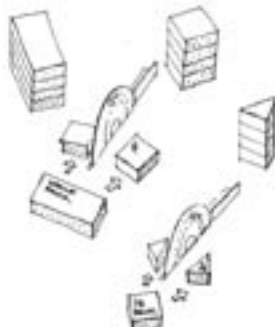
PROCESS No. 3: PLACING TILE FACE.
The set bricks and tiles are placed into the mould and held in place by the remains in the mould inserts.



PROCESS No. 4: PLACING FACE MIX.
The face mix of stone concrete is placed around the set bricks and tiles.



PROCESS No. 5: COMPLETE MOULD.
The mould starts to feed into the mould geometry.



PROCESS No. 6: BRICK AND TILE CUTTING.
Standard bricks and tiles are standard again in light to designed work.



PROCESS No. 7: PLACING REINFORCEMENT.
Reinforcement is placed in to to to allow the structural concrete being cast that the panel brick being joints.



PROCESS No. 8: PLACING STRUCTURAL BAKING.
The structural concrete is placed in to to feed facing brick and tile inserts and reinforcement.

STAGE ONE of production of the 'MASONRY TILING' for the Rosehaugh-Stanhope Blackfriar's Project. A mould is made that holds the pieces of brick and tile. Brick and tiles come out of the kiln with huge size variations. These are then cut precisely to size in the diamond saw workshops that now machine bricks into 'special' shapes.

Blitzcrete, first built in 1982, was the first of our patterned concretes to be perfected. The second was the 'Masonry tile'. JOA invented this, in 1988, to satisfy the peculiar ambitions of Stanhope Securities, London's leading real estate developer of the 1980's. I never shrank from making it clear how JOA built its buildings by taking their final, hand-laid, external masonry cladding off the 'critical path'. But when it became clear that Stanhope's injunction to pre-fabricate was motivated by its political need to clear the site of workers, and its financial need to exhibit a completed facade within weeks of starting to build, JOA invented a prefabricated brick cladding.

Every 'modern' Architect believes that it is 'wrong' to imitate one constructive technology in another. (Was this, perhaps, why the 20C gave up studying the Greeks, who the 18C supposed to have copied carpentry in stone?) So why imitate coursed brickwork in a prefabricated panel? Masonry workshops, in the 1980's had begun to hum to the whine of rows of diamond-powdered disc-cutters that sliced brick into delicate slices of ceramic cheese. By casting these into concrete and then machining the surface, as we did with the randomly-broken aggregate of 'blitzcrete', JOA could pattern 'photolithic' concrete with more 'regularity'.

MASONRY TILE STAGE TWO: Concrete made with crushed ballidon limestone and white portland cement is poured around the coloured bricks and tiles. Then a sheet of stainless steel reinforcing mesh is laid into a layer of grey portland cement concrete.



3.

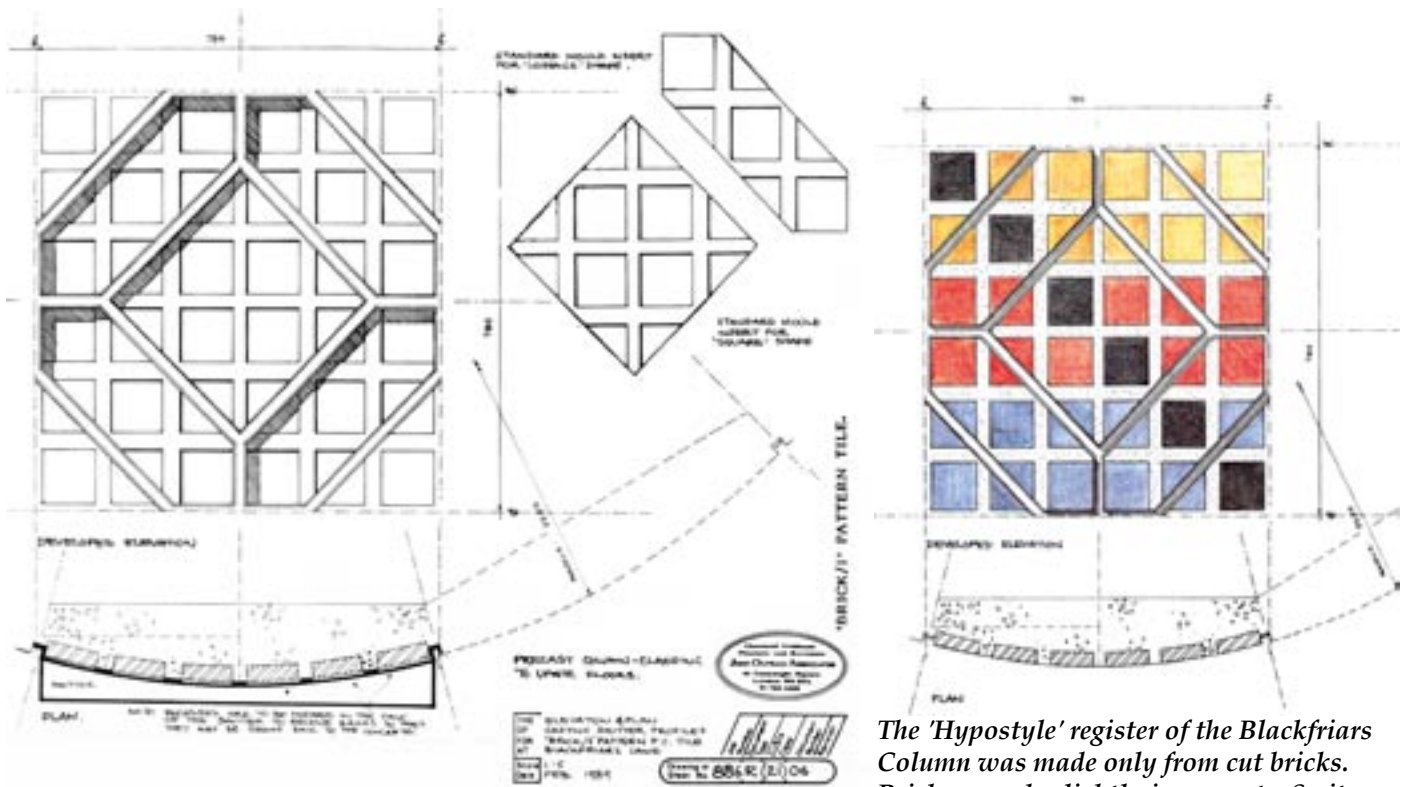
PROCESS No. 9: DEMOULDING.
Proper care is demanded. Pressing brick and tile inserts protruding from all the facing face of all precast concrete.

PROCESS No. 10: GRINDING.
Proper care of the face and tile inserts are ground down. Done by the face of the concrete and acid etched.



SAMPLE: brick face tile. Red red line cast into white concrete and ground back than.

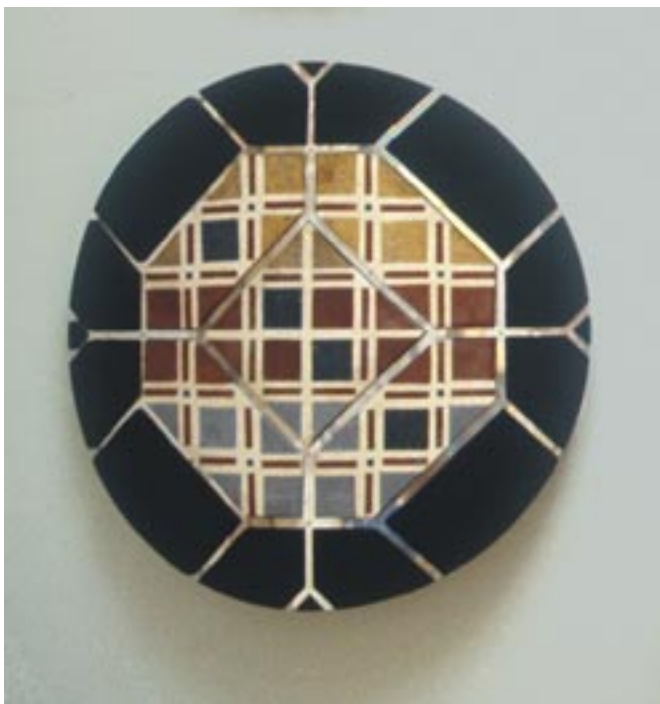
MASONRY TILE STAGE THREE: The casting is de-moulded and left to harden. However, before the concrete obtains maximum strength a diamond disc removes three mm and reveals the full colour of the ceramic inserts along with the very precisely specified concrete aggregates.



The 'Hypostyle' register of the Blackfriars Column was made only from cut bricks. Brick expands slightly in concrete. So it will not fall out. Nor does it ever lose its fired-all-through colour.

The 'Hypostyle' Register of the Ontogenic Phenomenology is composed of spirals of black bricks passing through layers of red, blue and yellow.

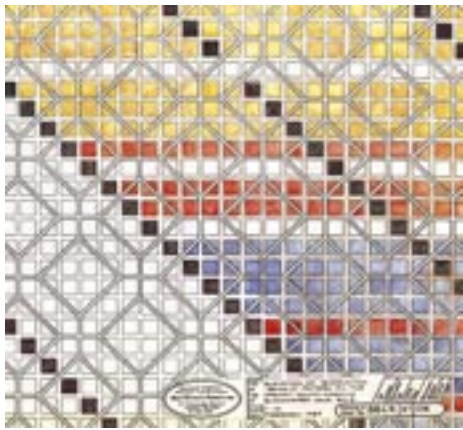
JOA were commissioning pre-cast concrete since 1976. Rosehaugh-Stanhope refused to accept the Masonry-Tile because it was 'sourced' from small manufacturers. Stanhope's ambition, which became clear as the project progressed, was to have the whole facade made of one single material (even 'Dryvit' polystyrene) by a single large factory. Their reason was that only a large 'Package Contractor' was worth suing for technical defects. The effect of this was to disregard JOA's experience and the basis of our reputation. We did our best to invent something that suited Stanhope's politically and financially-driven agenda. But, in the end, we judged that it was not worth losing our status - just to work for Lipton!



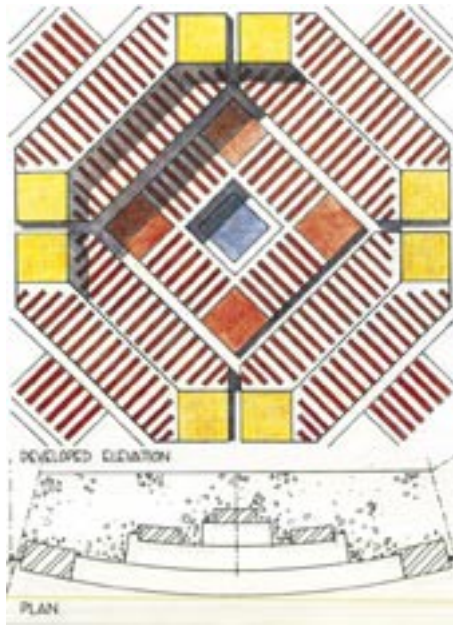
A full-size mock-up weighing a quarter of a ton that was exhibited at the Venice Biennale of 1991. The cracks between the tiles perfectly communicated the idea of the column as a 'columna lucis' - a vertical beam of energy whose ferocious light shone between its photolithic 'scales'.



The individual 'masonry tiles' had a rebate all around them, which formed a network of 50 mm (2") grooves all over the face of the giant column. A mirror-polished stainless steel flat was bolted into the groove. This one 'tile' was the only piece of 'mock-up' which Rosehaugh-Stanhope would fund. JOA paid for the remainder ourselves - subsequently aided by the Biennale 1991 budget! Not very 'American' at all!



The topmost register of 'Hypostyle' is composed so that the two lines of black bricks form a giant lattice which diapers space with the speech of an hypostylar Order, the ground built by the Reason of discourse.



The column (below) is belted with 'Lotus'. It is the zone of human corporal embodiment, or Earth. It unfolds, with the modular beat of the tiles, out of the blue Ocean, through Red Fire towards, Yellow Light.

The 19C collapse of the Western artistic tradition split it on the one hand into a **photorealism** which spanned from chocolate box to Cinerama and, on the other, into an **abstraction** that was either **rigorously meaningless** or **guiltily eager for some reference to the world outside the gallery**. This 'guilt' is today mainly assuaged by making the reference, like **embalming a large fish**, and then **denying the banality** of the reference in an act of **suicidal 'artistry'** (like cutting the fish in half).

Escape from this **yawning foolery** (whose main effect is to fill Museums of Art with weekending drifters) can only be had into an **iconically literate** culture in which seemingly simple signs play on a stage whose **iconic landscape** is arcane and complex. The **mental block of photorealism** is avoided. What can be thought of a perfect replication except questions of 'technique'? Avoided also is the **pointless angst** of an architecturally illiterate artist addressing an equally illiterate public.

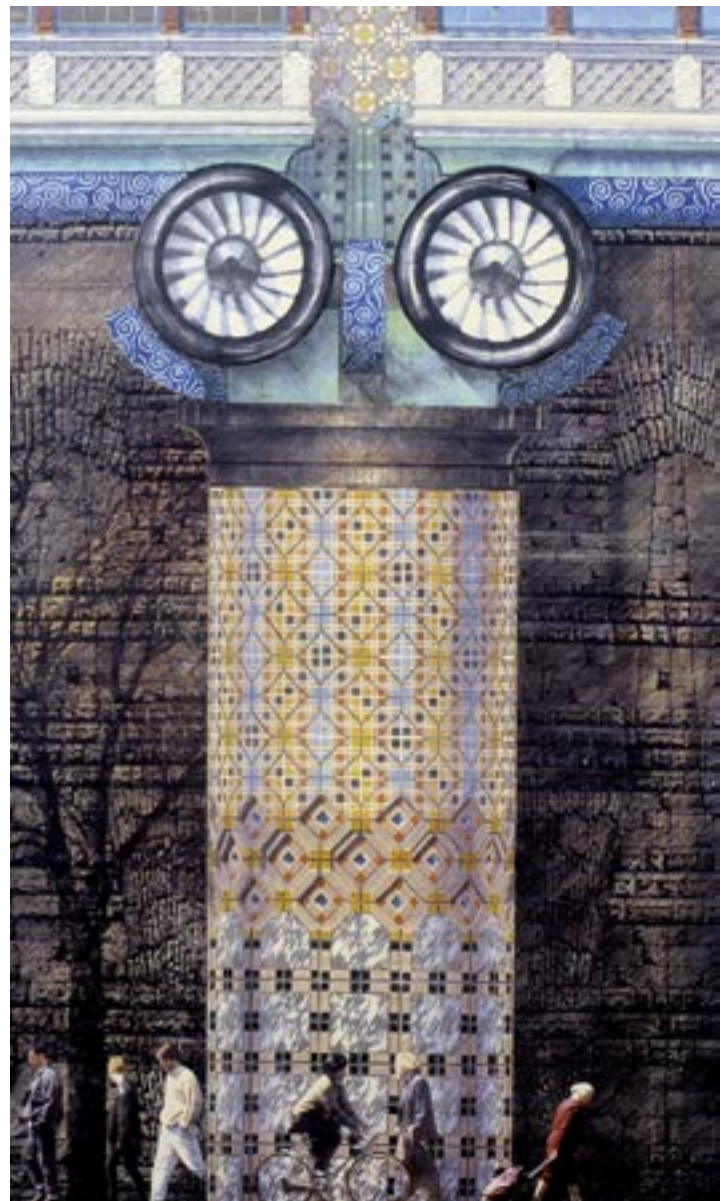
One may script with simple 'signs' providing they refer to interesting symbolic decodings.



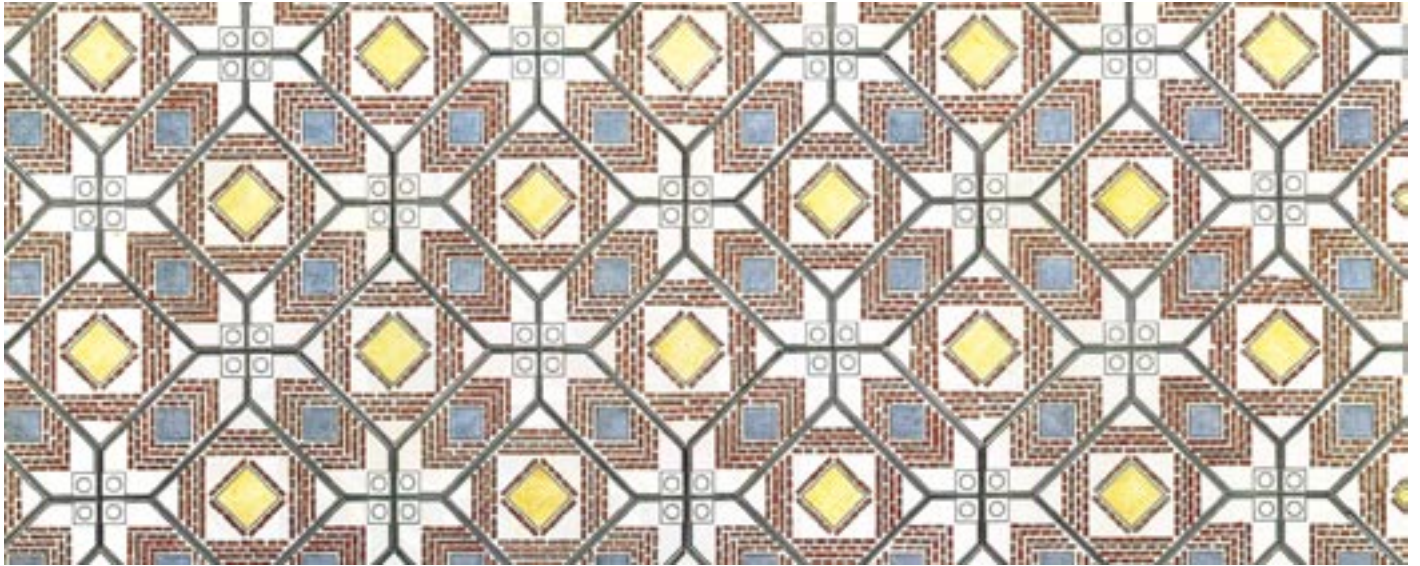
The lowest register is that of Okeanos. The centre is a slab of Carrara Arabescata.



It is a chaos framed in the metrical structure of the columnar 'modules'.



This column is 'politely' narrated by the 'event-horizons' of an ontogenetic phenomenology. In Houston, city of chauffeurs, stale air is vented over passers-by at pavement level, A polite city breaks wind above its citizens nostrils. Helicophilia, or a love of propellor-fans, is a 20C iconology that has here turned into a Column-Capital.



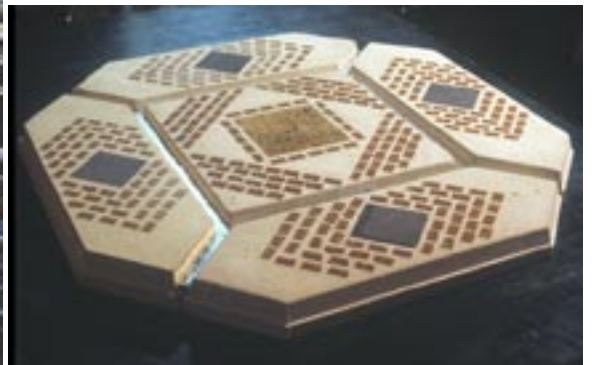
The upper register of the 'Sixth Order' at Blackfriars was mainly covered in small cubes cut from 'coursing tiles'. these are the same as plain roofing tiles, but made flat to build into brick courses. They would be mass-produced from the diamond saw brick-cutting workshops - of which there were several.



A view of the Column tiles and the window spandrels of the Blackfriars design for Rosehaugh-Stanhope. The window-spandrels were assembled from pieces of cast glass. The column changed diameter half way up. At this point the cladding was made from copper.



The full-size sample of the topmost register of column tiles. JOA had it made to take to the 1991 Venice Biennale. The mirror-finish stainless steel strips sunk into the wide grooves between the tiles reflected what was in front of them, making the solid tiles hang in nothingness - as if supported by the mind alone.



A view of one of the curved column-tiles. The stainless steel strip that fitted into the gaps between the tiles, helping to hold them on, had not yet been delivered. So, for this photograph, we made-do with silvered card.

We know that the **superstitious ambitions of the Ancients**, along with the millions of human beings that still remain in thrall to such fancies, are **futile**. Spells and **incantations** move nothing except the **spirits of those who believe in them**. A thought, Descartes proposed, **has no being** on its own. It achieves **ontological status** by being wrought into a human being, and then, beyond that, into a 'machine' - a **confection** that will achieve an **interface with physis** - or Nature.

But this still does not answer the question of the power of spells, incantations, epiphanies, rhetoric and metaphor. **What is one to do with these techniques?** Are their powers of any use today? **Only architect's** have to ask such questions. Workers in the other communicative media, such as films, TV, fashion and advertising know that the 'casting of spells' is the very body of their science. Even the erstwhile 'fine' arts, that have now extensively merged with their 'applied' sisters, understand that the only line dividing them from the superstitions of the Ancients and the Primitives is **not a question of technique but a matter of ethics**. The practice of a **contemporary rhetoric** aims to pursue the needs of philosophy, even if it employ the **means of poetry**.

Today we **contradict and combat** the ancient practice of enforcing superstitious beliefs in order to control behavior. Yet, because **belief and behaviour go hand in hand**, a modernist's ambition ought to be to **inscribe scientific truths within the public, lifespace**. The ambition of a modern practice of the 'enfleshment of ideas' is designed to **'make real' the truths of science**.

One may reasonably ask, of the medium of Architecture and city-planning, "why is there so little support for this ambition?" "Why have I found, over the last 20 years of effort, such determined resistance, in 'Old' Europe, to the inscription of the ideas of science"? My conclusion, sketched in these Lectures, is that **the reluctance is mainly due to the turbulent politics of the 20C**.

But even if politics, especially democratic, consumerist, politics, are the source of the **taboo** upon an 'architecture parlante', a contributing factor must be the long-standing decay of the medium of the inscribed or 'decorated' surface.

For if one were to ask a 20C Architect, 'how does one reify an idea?', he would not know!



One can empathise with the Ancient Egyptian superstition that a text was a power capable of physical effect when one looks upon an artifact such as the sarcophagus of Petosiris. The glyphs were cast in coloured glass and embedded in a dusky board to glow like neon stars in the night of ignorance. How could such an object fail to achieve its incantatory imperatives?



Egyptian architecture was not the merely sensual and sculptural ruin we see on site today. It was saturated with an iconic brilliance brought to it by the 'magical' power of its scripted surfaces. The iconic texts had the power to literally en flesh the ideas that they inscribed. Colour, in this medium, was not narrowly aesthetic. It dematerialised the plastered-over stone of the columns, reincarnating these trabeations of text into a landscape of conceptual epiphanies.

The **individual** has always been subject to some servitude under a **master**, whether Aristocratic or Plutocratic. He, and she, has existed through the centuries **only as sparks** that might catch the **reflected glow** from an **arrogated, inherited or purchased power**. The Citizen, who existed **in his own right**, as the **enfleshment of the power of his own city**, is the project that underlies Modernity itself. The habitat of the Subject, the servitor of some singular power, aims to magnify the singularity of its Ruler. The **City of the Citizen** requires more subtlety. It is easy to build a **palace to a ruler, a temple to a god, or a tower to a plutocrat**. One finds them surrounded by the shambolic habitat of their **dependent 'subjects'**.

The habitat of the **CITIZEN** requires that the **regularities of the palace extend to the CITY itself** – as the **'machine'** that embodies the **Citizen's legitimate 'being'**.



Stage 1: CONCEPTUAL RICHNESS - a 'textual' architecture.

A 'false door' such as was employed by the funerary architecture of the Ancient Egyptians, was designed to bring forth the deceased from his tomb so as, in particular, to allow his body the sustenance required to continue in being. In short to eat. A picture was normally cut and painted, above this 'door', that showed the occupant seated at a table on which were placed serried ranks of loaves and other foods. So persuaded were the Nilotics of the power of their textual architecture that it mattered not whether real food was placed at the door each day. The imagistic speech and the depiction of its restorative effects were as good as a dinner of real food.

This door is a mere scratch upon the solid wall of the tomb. Its efficiency is due to no provision of that spatial vacuity so dear to the decayed architectural ethos of the 20C, but to its 'situating' within a reality described by the texts which constitute its architraves and lintel. How can a human being achieve a more efficient epiphany than by 'coming into being' upon such a proscenium?



Stage 2. A POLITICAL NECESSITY: An Architecture for iconically illiterate subjects.

The Egyptian cosmogony associated with the city of Hermopolis proposed that the creation of the human lifespace resulted from the utterance of four words that variously characterised Negation. These gendered into eight deities: the 'Ogdoad'. Their names meant 'primordial water', 'infinity', 'primordial darkness' and 'obscurity'. These 'utterances' acted as pillars which separated the primordial chaos into three parts, the transcendental terrain which was above, the transcendent that was below, and the central, immanent, zone of human habitation.

The anthropomorphing of these 'textual' props which guaranteed the continuation of creation, was effected in order (as Plato understood) to make them more comprehensible to a public so illiterate that they would boil a text to drink its soup so as to ingest its gist.

The Ogdoad were 'humanised' into actors on a stage whose lines could be learned and repeated orally.

Architecture was deprived of its decoratively 'textual' ornament. It was stripped of its properly abstracted iconographies by millenia of painterly play-acting for an iconically illiterate public. Warburg proposed, in 1912, that this histrionically primitivised art should respond to the iconic maturity and literacy that was now widely available, for the first time in history, through the novel medium of colour printing and weekly journals. Equally Viennese, Warburg's strategy was diametrically opposed to the suicidal project for iconic silence proposed by the decorative incompetents of the Vienna Circle: Loos, Wittgenstein and Kraus.



Speech is between sight and touch. The word is called the 'subtle body'. It mediates between idea and thing, concept and object.



The glazed bricks on the major and minor orders of the Groenmarkt in Den Haag carry the five-fold Phylogenetic and Ontogenetic narrative. They are also invaded by the grey bricks of the Darkness of the Sun, or the 'Blindness of Nature' which obscures the inscription as the columns progress North to South. The Icon of the Logos shows the five-fingered Hand in yellow, the Mouth with red lips and the Eye with the black and white of light and shadow.

The invading 'darkness' of English engineering bricks, can be seen in the left hand 'finger'; It is also breaking-up the form of the 'wheel of fire' above the Logos.

The Icon of the Logos has five 'fingers' of the Hand which makes Things, around the Mouth that makes Words, around the eye which makes Ideas. The 'word' is the medium entirely missing from late 20C Architecture. The function of Iconic Engineering is not primarily to enhance either the tactile substantiality of building, nor its visual image, It is to encrypt lifespace with a literacy to feed the mind.

The Eastern balcony of Duncan Hall in Houston, Texas is bracketed between two columns which carry the iconography of a Vedic version of human Phylogenesis and Ontogenesis. The waters of gestation are held in the pot or 'Khumba', out of which grows the Earth-column, or Stambha, in the shape of the abstracted Pipul tree leaf - as found in the not-yet-decoded Mohenjo Daro syllabary. The event-horizon of the intake of breath and the making of speech is enfolded by the icon of the Logos, above which, and later in the ontogenetic sequence, comes the opening of the Eyes, and Sight, signified by the wheel of fire that is the Chakra, or Swastika.

There are **three** stages to the progress of iconic culture.

In the **first** an expressed, **public**, iconography reinforces common ethical structures. In the **second** the public 'enfleshing' of a common ethos comes to be **questioned and argued**. Seen as **oppressive by the underclass** and **divisive by the rulers**, ideas of any seriousness are erased from the public arena. This, second phase is characterised by an **aniconic minimalism**, It is also characterised by iconic manifestations which appear **chaotic, ironic and frivolous**. While allowing iconic inscriptions to break the aniconic taboo, this 'deconstructed' iconics is useful in that, like the culture of advertising, it creates a public that is both **suspicious of images**, as well as **iconically literate**. This can, beginning in isolated places, lead to the **third stage** of iconic development in which a **sufficiently aware, liberated and iconically educated public** enjoys the inscription of serious and deeply-structured ideas which are **deliberately diverse** and even **contradictory**. Such a culture understands that the 'public' dimension of their lifespace belongs to no particular ethos, but is, instead, an **arena** where ideas are argued openly and policies governed by **wide and deep thinking**. The importation of foreign ideas is of use here both to **reflect globalisation and the multi-ethnicity of contemporary culture**, and to broaden the **width, and depth, of thinking**.

At the end of the 20C most of Asia remains in the first stage, Europe, from East to West, and for diverse and contradictory reasons, seems locked firmly into the second. In the experience of JOA's practice only the 'melting-pot' culture of the USA shows signs of having decisively entered, here and there, the third stage. But even this culture is subject to powerfully isolationist regressions which seek to define a dominating and unifying cult of 'American-ness'.

Venturi's proposition that an **architectural facade was a bill-board** was, as he might have put it, "**almost all right**". But why did he then go on to reduce Architecture to an insoluble 'problematic' whose only resolution was in its reduction to a flabby corpse fit only for the sport of necrophiliaes. **Why not, in the wake of this not entirely novel idea, reconstruct Architecture as a modernised iconic engineering?**

The framing of the windows of the Blackfriars project cast (in the sense of both throw and 'stage') their dramatis personae into the Emplotment of Time. The **Entablature is a Raft**, whose tubes are cored with **Promethean fire**. It carries a river of **Somatic Time** which flows between the trees of a **Forest of Infinitude** through a split in the (carrara arabescata marble) mountains.

This **entablature-raft** supports, on its **uppermost logs**, green icons of the **New Earth** that the coloniser-travellers will establish at the **New Foundation**.

The whole is 'supported' on **columns** whose core is **yellow light** and whose capitals are the **blue** of the sky. The columns begin in **earthen red** whose cubic basketwork houses streams of **blue water**. These rise-up through **green fields**.

This 'proscenium-frame' rests upon a base whose centre is a **latticed hypostyle**. This is the **Triangulated Delta**, the 'field of reeds', through which the river of **Somatic Time** flows to its dissipation in the **Ocean**. It is also the **trabeated raft** upon which the whole assembly, like the aedicule of the Egyptian boat of the sun, out-rides the ocean of chaos.

More physically, it is also the figure of the 'cancelli', the **crossing-out** used by Roman lawyers to indicate a 'cancelling' - in this case of the **perambulatory passage** through the **door which lies behind every balcony**. Windows are the badge of 'prisoners' of walled enclosures.

The 'window of appearances' of the **citizen of this lifespac**e is no mediaeval Saxon 'wind-hole' at which the wage-serf must come to gasp some oxygen or import some solar Vitamin D. It is an **iconically-engineered stage** on which the individual may **feel his Being** upon the stage of a mystery that has entertained philosophers: that of an **Infinitude** now reified as **Time and Space**.

□



MATERIALS ENGINEERING

Green ceramic roof tiles

Laquered blue concrete cylinders tipped with polished stainless steel rings with inset red cores

Carrara arabescata held between s/steel scotia mouldings by s/s bolts in black and green polyster-coated washers.

Cast glass 'guilloche' pattern in blue and white 'S'-shaped sections fixed to a chrome yellow background

Carrara arabescata held between s/steel scotia mouldings by s/s bolts in black and green polyster-coated washers.

Laquered red concrete cylinders with s/steel rims

Pale Blue concrete capital with yellow trochea annulus.

'Criggion Green' pre-cast concrete upper section of column with inlaid strips of 'Bayer Blue' concrete.

'Indigo Blue' polyester-coated window frame with s/steel fixing bolt heads

Brick-red Precast concrete with bayer blue inlay in the diaper pattern

The Base to the columns is assembled from a big, light-reflective terne-coated sill that rests on a grey-blue concrete balustrade cast into a cyma-recta profile.

Clear cast glass 'ashtray' assembly to form window assembly spandrel.

Bedding sill of terne-coated metal

There can be no limit upon the discursive capabilities of an iconically literate culture. However arrays of icons can not be erected upon any wall, ceiling or floor and be expected to conjure their meanings into existence within 'real' space.



'ICONIC' ENGINEERING

The 'New, green, Earth' carried by the Rafted Entablature to the New Foundation

The 'Trabica', or raft of canonic logs, powered by the fiery cores of the 'trabes', is stained blue by the sky and sea.

The green trees of the nave-forest with silvery spines grow from the black earth against the carrara marble mountains.

The interwoven river of serpentine Time flows between the carrara arabescata mountains and the forest of nave-columns across the golden sand of the sun.

The green trees of the nave-forest with silvery spines grow from the black earth against the carrara marble mountains.

The raft of canonic logs has come to rest. Its cores have cooled to dark blue and it is stained brown by the earth.

The CAPITALS are coloured the cerulean blue of the sky rather than the polished black normally used by JOA. Black is the lightless black of the 'ether', the stage of 'thought itself' modelled on the non-colour of outer space. This is, properly, the fifth stage of the ontogenic narrative, whereas the blue and the yellow of the annulus represent only the fourth ontogenic 'event-horizon, that of the advent of sight.

(These short columns gave no room for a five-stage history. The Entablature itself, with its 'cargo' can well stand-in for the fifth ontogenic and phylogenetic stage.)

The COLUMN is the 'prop' which separates the upper from the lower, defining the space of human existence.

The upper COLUMN is the green of vegetation threaded through with the blue of water.

The lower column is the red of earth and fire, again threaded through by 'canalised' water - this time in the pattern of the hypostylar matrix of fields and cities.

The human lifespace is the region of the earth, vegetation and water..

The grey blue balustrade is shaped as the wave of the cyma (kyma is Greek for wave) recta profile. It carries the aedicular 'dwelling-frame' of the Citizen.

The balustrade spans between twoblack and white ('day and night') mountain-columns to bridge the outlet of the river of Somatic Time as it becomes the Hypostylar Delta - Field of Reeds - before dissipating into the Oceanic infinity.

They must be locked out of it into the 'artificial landscape' of a Trabeated Architecture in order to obtain the conceptual velocity to re-enter mundane space as 'enfleshed ideas'. This can only be done, within the entropically-dissipating chaos of natural space, if the icons ride on the back of the trabeated power-beams of an 'Ordine' like the Sixth Order.

Architecture is the **tool** that **'enfleshes being'**. Whether it is the 'being' of a monarch that is being realised, or that of an individual citizen, is not an architectural issue, but a **political one**. The tool merely effects the **enfleshment** of the human on the **stage of Time**. Projecting its citizens on the stage of absolute **time and history** is an **imperative** that can give way to no other. This is the ambition of a **city planning** that could be denoted **'modern'** were it not that the 20C, by **abandoning the specific tools of Architecture**, **abandoned the means to realise** this project (or, indeed any such of some **ontological capability**).

A window, used as a 'wind-hole' merely punctures a material wall in order to admit daylight and air. **That is Building**. Architecture comes into being when a window is used as a **stage to project a presence**, either human or conceptual. But this **'coming into Being'** is not effected by mere exposure, to use the words of T.S. Eliot, like "a sewing machine upon an (operating) table". Architecture situates this 'act of exposure' by **framing the unveiling** (the **proper role of curtains**). It is this **'framing'**, rather than the aperture in which the person stands, that changes a mere **'appearance'** into an **epiphanic 'coming into being'**.

We can see from this brief overview of Ancient Egypt, that the **act of Architectural 'framing'** can **vary** from the powerfully superstitious use of **incantatory texts**, via the recruitment of **effigies** of the gods and other **anthropomorphs** of influence, all the way down to the merely **sentimental evocation** of some forested, **cottagey home** made from tree trunks, beams and thatch.

We can argue that this decline is accompanied by a welcome reduction in the corrupting madness of superstition. But why, then, when superstition is banished, does not 'decoration' return? Why, when it is understood that language and images move neither Nature nor the Gods, having effect only upon us humans, the species that invented them, do we not employ them to inscribe ideas which are true, benign and useful (even if arcane and complex), so as to banish those that are not, merely for our own, human, benefit?

IT WAS THE EARLY 17C BY THE TIME THAT THE 'CORRECT' FORMS OF RENAISSANCE CLASSICAL ARCHITECTURE BECAME ESTABLISHED IN ENGLAND. THIS WAS ALREADY 200 YEARS AFTER L.B. ALBERTI HAD MAPPED-OUT THE SUBTLE AND POWERFUL WAY THAT THE RENAISSANCE WOULD BUILD IN RELATION TO MEDIAEVAL MUDDLE.

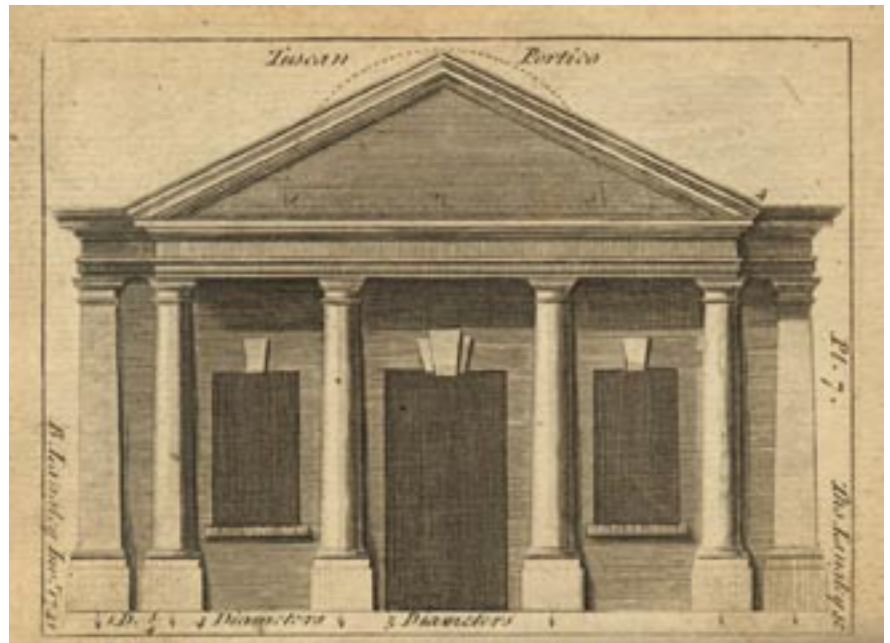
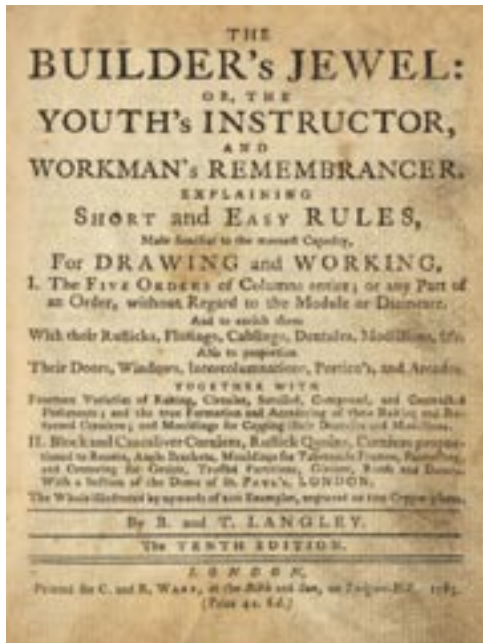


Stage 3. ARCHITECTURE AS SENTIMENT: the recovery of the wooden house as a cosy final resting place.

The final catastrophe for Architecture can be found to have occurred, perhaps for the first time, some 4,000 years ago, in Beni-Hassan (the Nilotics were always forward in this medium). The subterranean tombs of the war-lords of the Oryx Nome were cut between 2133-1786 B.C. We can see, in the architecture of these simple-minded chieftains, the reduction of the columns to mere sticks supporting a roof of projecting beams.

This is one of the older evidences of the conceptual savagery which continues, century after century, millenium after millenium, to reduce architecture to the mere manipulation of physical matter. To pretend, as did the Rigorists of the 18C, that such decadence is either neo-Classicism, or in any way worthy of the name of Architecture, is to ignore the fact that humans not only have heads on their shoulders, but tongues, eyes and brains inside them.

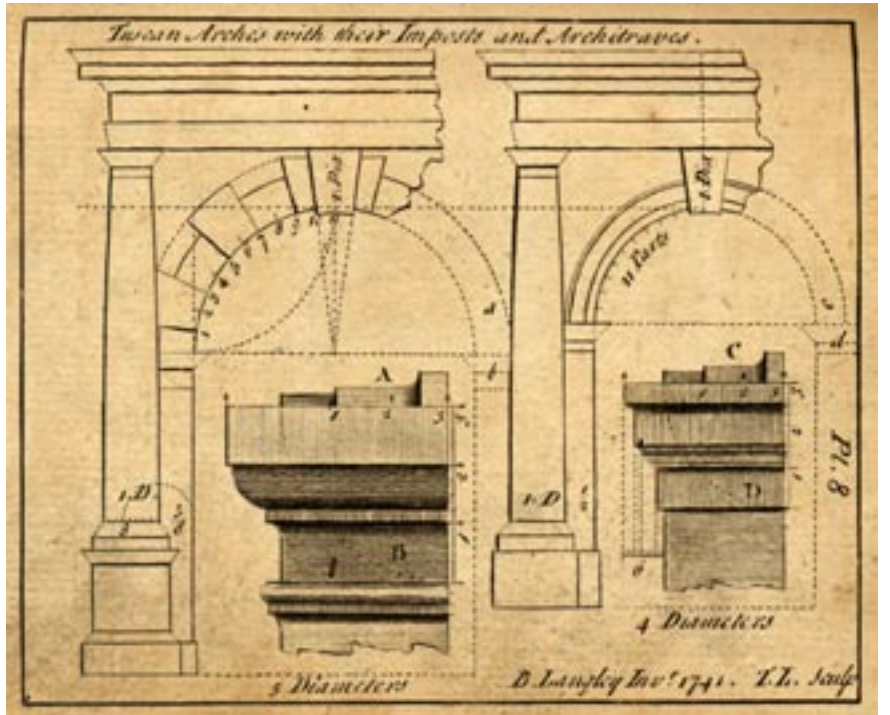
One of the illusions of Architects, Builders and all who are involved in this Medium is that they are concerned with 'reality'. What is more 'real' than a stone wall? One would have thought that such fancies would have been dispelled when 'Enola Gay' bombed Hiroshima.



The handbooks of Batty Langley have come to stand for all that was conventional and uninspired in classicism. Yet the Milordi came back from their 'grand tour' with rather less understanding than a woodcarver would glean from using these drawings.

Connoisseurship became the cancer that continually trivialised the Classical Architecture of Britain. Its Roman simplicity, even its sturdy brutality, masked a profound ignorance of its conceptual culture, as invented and rehearsed in the Mediterranean. This is an archaeologist's, a surveyor's and a draftsman's Classicism - elegant, spare, stylish and radically devoid of either epiphanic ambition or semantic achievement.

Italian Renaissance Architecture had, by the 17C, already parted company from the energy of its original, 15C, secular Utopianism. Its Neo-paganism had been compromised by the Wars of Religion. Its renovation of the idea of the Greek Polis, the city-state, was in decline. The princely state, governed by the 'professional' ruler of Machiavelli, rather than a dynastic figurehead inherited from feudalism, was being overpowered by the absolutist, and more efficiently bureaucratic, Bourbon and Hapsburg dynastic Empires.



When Italian Classicism entered Britain it did so as a romanticised cult of picturesque Antiquity grafted onto the native 'Anglo-Saxon' stock (which remains lively to this day). This ingenious hybridisation conjoins, or should one say 'conjures', the artifices of Greco-Roman Architecture to be the most 'Natural' way to Build. This intellectual fantastication was (and even is, today), mediated by the third improbability of a mathematics raised to the level of a numeromantic cult. So impenetrable to sense proved this extraordinary combination that it survives all attempts at rational assault and continues lively to this day. Indeed as the various Mythologies of Modernism have suffered their erosion by Time and Circumstance the even more unlikely practice of a British Neo-Palladianism has revived and constitutes a commercially and culturally thriving contemporary practice. JOA have worked, for the whole of its existence, in the No-Man's Land between a headless Classicism, all body and no mind, and a 'Deconstructed' Modernism that is all mind and no body.

The recourse to proportion is mumbo-jumbo. No architect of quality ever followed such puerile 'rules'. They were used to garb the incomprehensible mystery of architecture in a fig leaf of Numeromanacy. Numbers give the Owner a sense that his Architect, being able to count, might be careful with his money.

The Photolithc combines them once more.

AFTERWORD for the FIFTEENTH LECTURE: 'THE PHOTOLITHIC'.

Arriving late for a major debate at the Art Worker's Guild I was astonished to enter in the midst of that hoary old quarrel as to "whether lintels (over windows) should be exposed in brick walls". One tires of the intellectually fruitless quarrels which beset the Positivist Functionalistas of 20C Modernism, whether in Track-suits or Three-piece Tweed. JOA divested ourselves of the grounds for this endlessly futile 'difference' between Appearance and Reality. By inventing the 'Photolithic' JOA made them THE SAME!

The metaphysical fruits of this little advance was a licence to print, not so much money as its cognitive equivalent - Decoration. One could become iconically rich! But to what end?

The 15C could make whole cities dissappear 'in the mind', even though they were, in their physical state, a 'Cataclysm of Domesticity'. The compositional system employed by Alberti and the Architects of the Quattrocento Renaissance was unlike any other that I have ever understood. Indeed, I know of only one other 20C writer who has understood it - namely Mark Jarzombek. But this ingenious technique is only partially available to us today. We cannot bury the houses of Gods and Giants, from the Age of Gold, in entire cities that read as the muddled, chaotic mudslides intimated by Christian Elling. Yet we 'Moderns' needed some way of making the 'prisons' of our comfortable cities as equally evanescent - as equally soluble to the imagination.

What JOA needed for this was a state of Built Being that was simultaneously immanent, as physically 'present' as one's own body, and transcendent - that is to say ethereal, imaginary and conceptual. The 'Photolithic' was JOA's response. This was a substance which was both Mass and Light combined within the same compass. Through-coloured concrete proved its reification. It can be both chromatically an intense blue, like the sky itself, as well as solid, hard, durable and strong enough to hold up a building. It can adopt the pattern of an explosion, as it does in JOA's 'Blitzcrete' and our mirror-laced 'Masonry Tile'. It can even receive an inscriptive tattoo with 'Doodlecrete'. Adolf Loos, turn in your grave. In spite of Aby Warburg, your contemporary, you still did not know either how, or what to 'write'." The Savants of the Modern Movement go on adoring these 'heroic' failures so as to prolong their status as Worthy Guides through the suburban deserts of iconic illiteracy that their own intellectual incompetence has helped the 20C to create.

Corbusier, in his famous 'Crack' sequence in Rio, said that "Nature is written into the Lease." With a Photolithic construction one may say:-

"The Mind is written into the Body."

