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.



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.

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 religous scrupulousity.

Chastened, I gave an inadequate reply.

Most Schools of Architecture could be closed without ill-effect on the design of the human lifespace. 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 sufficent 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 authenicate 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 enfleshed 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.



Secure within the island of our own, selfsufficient, 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 ambitous 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 firedon coloured 'slip'. This is a baked-on 'glass' surface 'paint' that will last for centuries.

Stone is a naturally-occuring 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 NOT AGE GRACEFULLY. BUT THAT CAN BE DISQUISED BY ICONICS.



The JOA external walling inkpad. No wall needs to be more than 30% glass. Over50% 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 brokenbrick concrete offers a fabulous palette pf 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 factoryrenew 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'.



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



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'.



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 enfleshed 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.

