

The Twenty- Seventh lecture

The Beaux-Arts Weave.



JOA's project in Rice University, Texas, was therefore to create the 'Polis'.
On the flat mud of Houston,
for the 'citizens' of the Faculty of Computational Engineering.

Our invention would owe much to Nature as an analogical vehicle to mediate a diverse structure of physical, social and conceptual operations. Yet it would use almost nothing actually 'natural' - no choice woods or marbles or stones. Its actuality would be cultural. It would be made of cheap materials - especially inside. The only luxurious thing about it would be the amount, and quality, of thinking. In this way it would triumph over its materiality, reducing mechanisms to instruments designed to serve other purposes than that old favourite of 20C architects, the 'machine aesthetic'.

JOA's first act, in this brave attempt, was to 'divine the module', as Mies used to say.

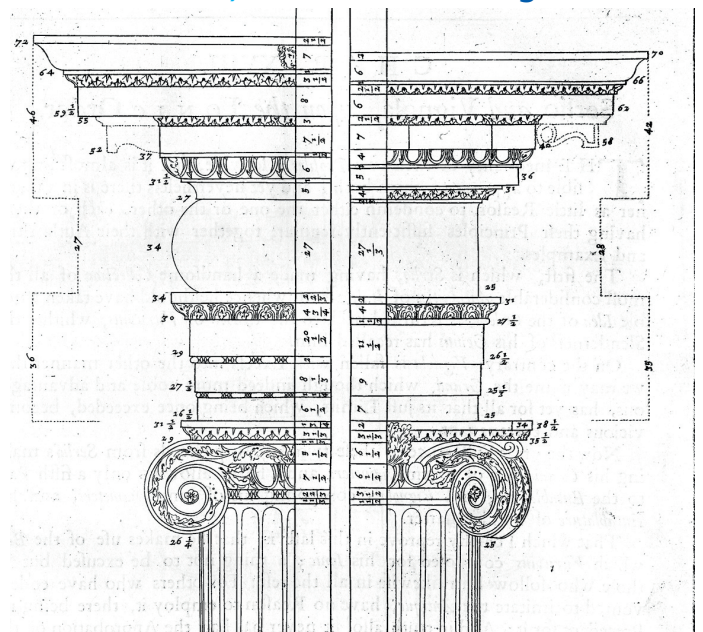
BUT WHAT IS THIS MODULE ?

WRITERS EVER SINCE VITRUVIUS HAVE ARGUED THAT IT WAS NUMERICAL.

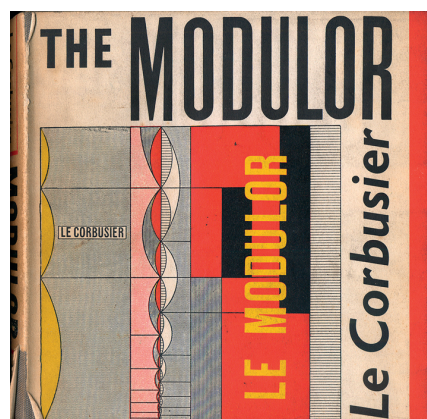
This is an error.

It derives from the inability of the West, which has continued to the present day, to decipher the meanings of the forms of Architecture.

Vitruvius gave his readers the received names, for the 'parts' of Architecture - both in Greek and Latin. He then described them by enumerating the dimensions of each small detail, on a scale whose primary unit was the diameter of the column-shaft.



The minutely-detailed arithmetical comparison between a column by Palladio (on the left) with one by Scamozzi. Translated from the French of Chambrey. Published by John Evelyn in 1664. Conceptually, no more than fine technical drawings perfumed with antiquarianising texts.



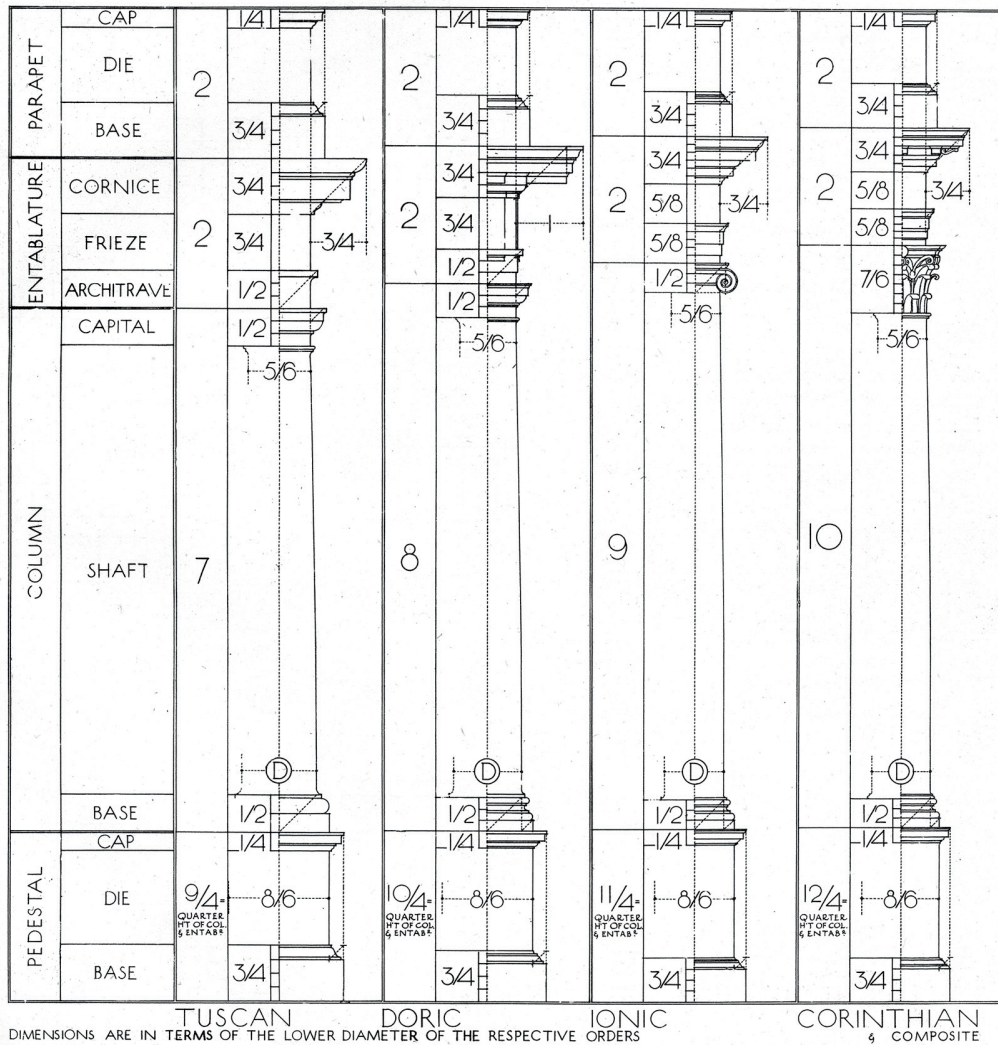
At the same time as he published, in 1955, his guide to the numerical control of Lifespace-design, Corbusier was designing the most anti-Urbane city complex of his career, the entirely sub-urbanised Capitol of Chandigarh, in India.

Such numberings have been proposed as 'significant' by Savants down the ages.

Rudolph Wittkower the author, in 1952, of "Architectural Principles in the Age of Humanism", remarked that "it needed no particular sophistication to turn them (the arithmetical ratios of the Mediaeval masons and the Renaissance) into practice".

Number, in the case of Architectural composition, has always been less than fundamental. But this was its advantage. It was a smokescreen that pleased the Public, giving them a sense of security that the subject was under the Architect's control, while allowing the Architect to

carry-on practising what he could not explain.



Dimensions are in terms of the lower diameter of the respective orders.

We have the traditional division of the Order into Base, Columnar shaft and Entablature. We have the division of each of these into a further three components—essentially foot, body and head. The 'Module' of Western theory is merely a technical means. It explains nothing of the formal transitions of the Order.

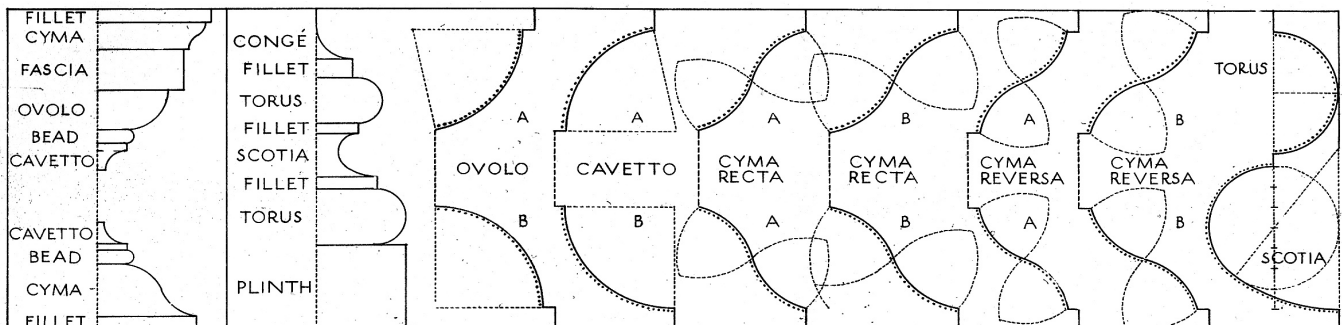
This type of 'Order' was used for a thousand years after it was given 'classical' form by the Greeks. Then, around A.D. 500 the Christians loosened its grip, to invent the architectural novelties that ultimately became the French Gothic. 'Restored' a thousand years after that, in Italy, The Greek orders only became frozen into the final (canonic) five by Vignola, and the other writers of the Italian Renaissance of the 16C. Constraining a ritual of great power within rules that communicate nothing of its meaning is what is done by people who do not understand, to the point of explaining it properly, the significance of the things that they do. Many 'traditions' are of this sort. It renders them fragile when faced with the need for change. When, finally, in the 20C, this need became irresistible, the 'order' of the Orders collapsed. Instead of being modified and altered, so that they continued to deliver the functions they always had, but with a novel equipment, they were trashed.

Module derives from the Latin 'modus', to measure, harmonise, moderate and bound with limits that define immoderacy.

The Module is the instrument of the quality, central to all Architectural theorising, of 'Commoditas'.

TODAY WE CALL IT 'SPACE-PLANNING'.

But its deeper meaning is to so arrange the lifespaces as to allow and encourage that balance between freedom and licence which is the mark of any civil urbanity.



TYPICAL MOULDINGS

'A' AND 'B' ARE VARIANTS OF THE SAME MOULD

Mouldings are the simple tools for modulating form used by all architectures in all cultures. They have provocative names like Scotia (cavetto) meaning darkness and death in Greek, and Kyma, meaning wave, like the waves on the Horizon—the edge of the sea/earth, and the final upper edge of the Entablature.

Hindsight is always clearer,

But the fact is that **Aby Warburg**, sensitive as many were to the **impending catastrophe of the -14'-18 War**, helped organise a conference in Rome in 1912.

He argued that **thinking about Art** should move away from **mathematical analysis** (of the sort typified by a modular numerology of the Architectural Orders). He also advised a movement away from **classifying Art by genre** (primitive', 'classical' or commercial), or by its **Style** (Gothic versus Greek versus Modern, etc).

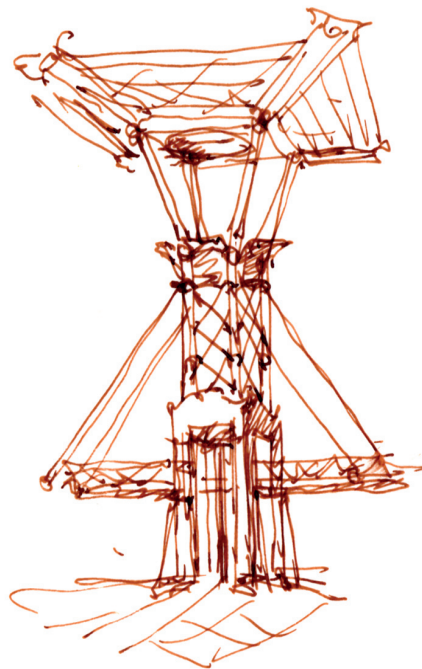
Warburg could see Western culture collapsing.

He proposed a defence by uniting all art production, everywhere, behind the shield of narratology.

'ART CAME INTO BEING TO ENFLESH IDEAS. BUT WHAT WERE THEY?

This new technique required knowledge of the political, religious, economic and metaphysical concerns empowering an art-production and, more technically, it required knowledge of how such ideas have been enlashed by the arts of diverse cultures with narrative-patterns, images, forms and colours.

Warburg coined the word 'iconography', (succeeding the 18C 'iconology') to support a 20C Theory of Art.



The 'body' of a 6th-Order 'Columna Lucis', but with 'arms and legs' that would please a 20C techno-Purist).



A Gateway into Angkor Thom. One could hardly wish for a more direct 'en-fleshment' of the idea of the 'columna lucis', the column as an anthropomorphised 'being of light'.



the 'Walking' version of the 6th Order in Duncan Hall, Rice University. A 'Columna Lucis' for Texas.

It will be clear to anyone familiar with 20C Art and Architecture that while the new media of advertising, films, and television, and even the commercial media such as fashion and interior design, have followed (with mixed success) the road signed by Warburg, Fine Art and Architecture refused his directions. 20C Architecture, especially, has never strayed (at least not with any pretence of serious outcome - one can hardly call Post-Modern 'serious') into the territory of conscious and deliberate meaning. If by this is meant a culture of extended narratives comprising several hectares of buildings all of whom would participate, both viscerally as well as conceptually, in a complex of narratologies. Such techniques, never strongly explicit in the Nordic West, have become so atrophied during the last half of the 20C that it is best to forget about any access to a 'traditional practice', in the West, and regard this 'lost' Warburgian project, 100 years later, as a radically novel enterprise.



Capital from Bokhara - a wheel of fiery light.



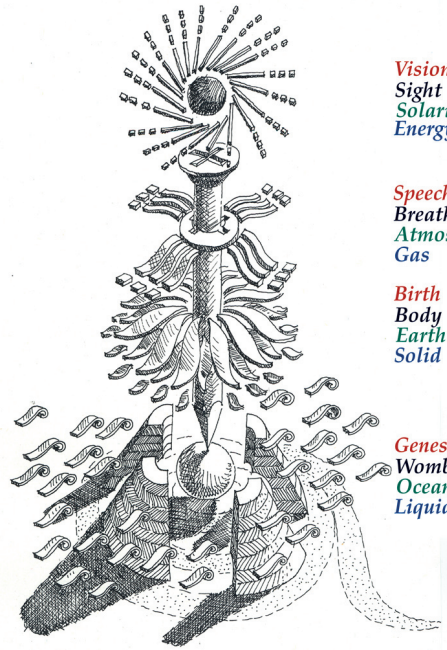
The base from above. Note the floor - scales of the serpent of infinity c.f. Roman pavé even today.

Architecture has been invaded by individual geniuses from musicology, sociology and pugilism.

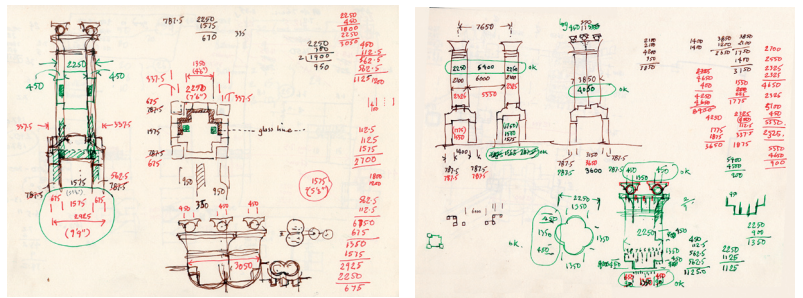
It is considered desirable to execute what are described as 'technology transfers' from less and less congruent technologies, such as automotive, aeronautical and astronautical media. It is, today, considered fruitful to wrap computer-driven armatures around analogies from esoteric media like the architectures of computational design and the varieties of metaphysical invention put forward by university faculties of philosophy.

Why, then, not spread the net a little wider and look outside the narrow temenos of Western architecture to refresh its exhaustion?

At least one would be exploring an Architecture and not an anti-Architecture, as it has been for the second half of the 20C.

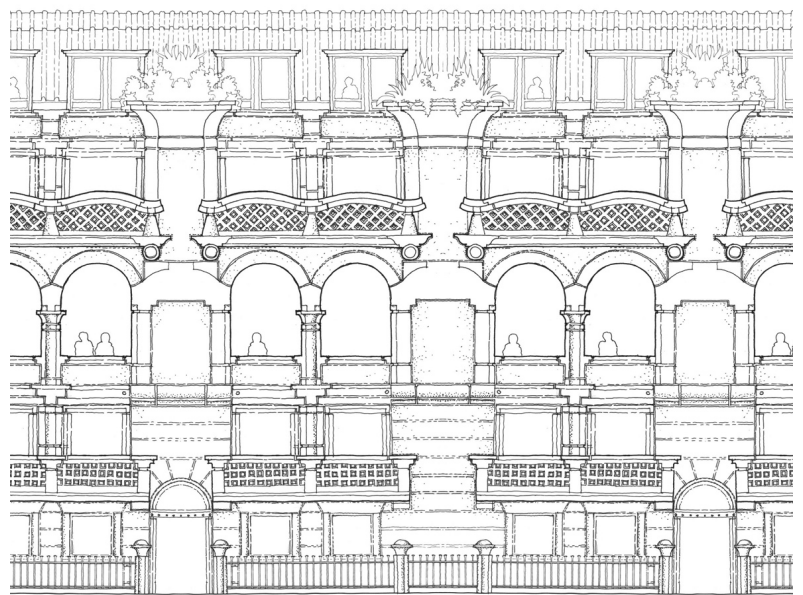


An Iconography for Kuiper's Vedic ontology. Bokharan architecture is Islamic on a 7C a.d. Hindu-Vedic foundation.



Computing the dimensions of these Orders, above and below, is, as Wittkower admitted of Palladio, a matter of merely practical arithmetic - all unclouded by Numeromancy!

"Castles in Polderland"



External elevations of duplex row-houses to the left and an apartment-tower to the right. The 'yoked' column is a jardiniere to an attic, or a window. It is five columns in one.



The elevation to the courtyard showing the 'ambulatory access verandah' along the second floor of these duplex houses..

JOA's reinvention of the Architectural Order, which we see as needed for the project of a monumental architecture, has, at the present time no place for numerology - an art or science of number. This is, perhaps, only to say that our work is not yet ready for it. Number is an entertaining intellectual activity, whose patent effects can be best served in surface-scripting rather than allowed to dominate something as 'enfleshed' as building. I designed a ceiling (which carries, inter alia, the theme of of number), for a building in Den Haag, Holland - a culture which has always found numbers engaging.

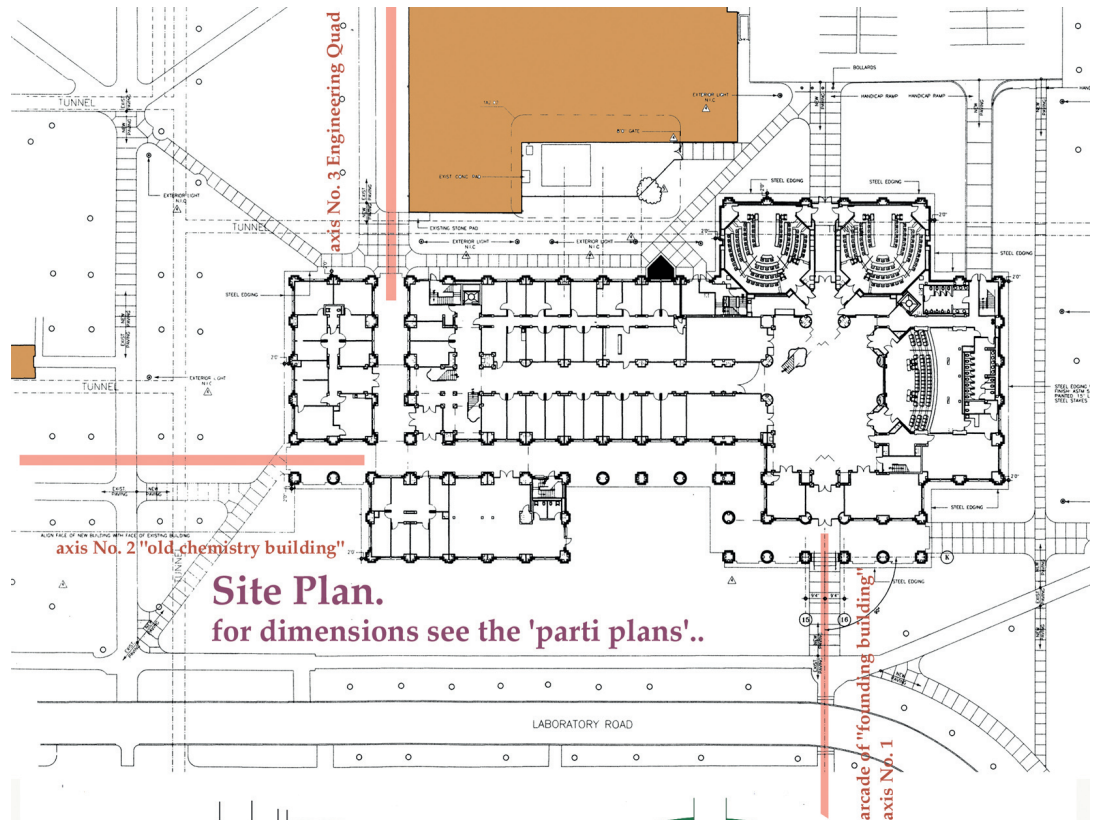
Number is incorporated into our work at the level of what the Greeks call the 'proton chronon' - the steady beat of the infinitesimally small - the Time before time divided its interval ('points') one from the other. Mies van der Rohe 'divined his Module'. I preferred this single, universal (non) interval for the Hypostylar Empire of the Forest that must be planted in order to inscribe into it the Republic of the Valley - Arendt's 'space of appearances'. Although mediated by natural analogues, this should be demonstrated as a human act.

In the case of Duncan Hall there were three axial contingencies.

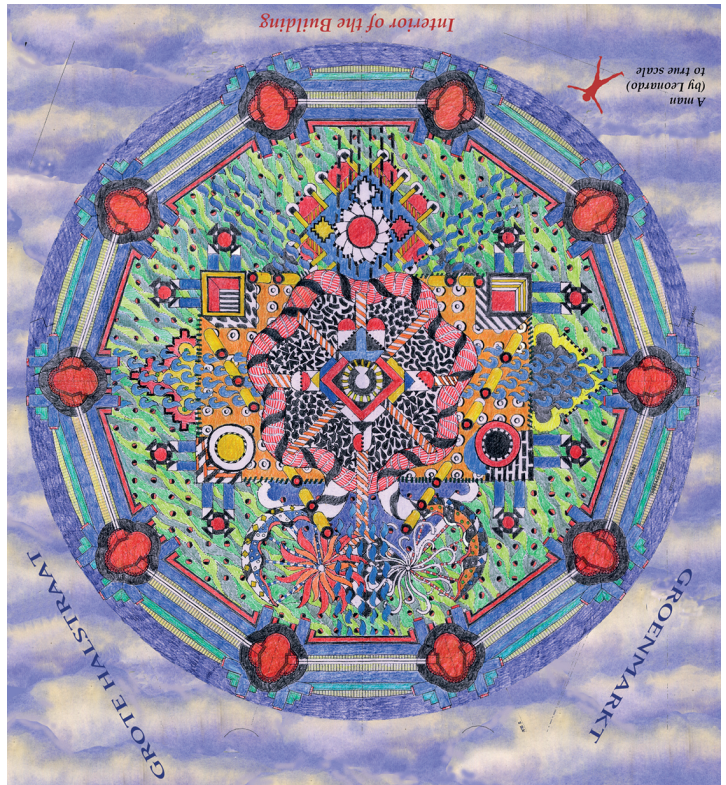
JOA'S 'RICE MODULE', HOWEVER, IS SOLELY PRACTICAL.

AXIS NO. 1
BOLTED DOWN
THE POSITION
OF THE
'HONORIFIC'
FACADE AND
ENTRANCE
THAT ANY
MONUMENTAL
BUILDING MUST
ACHIEVE.

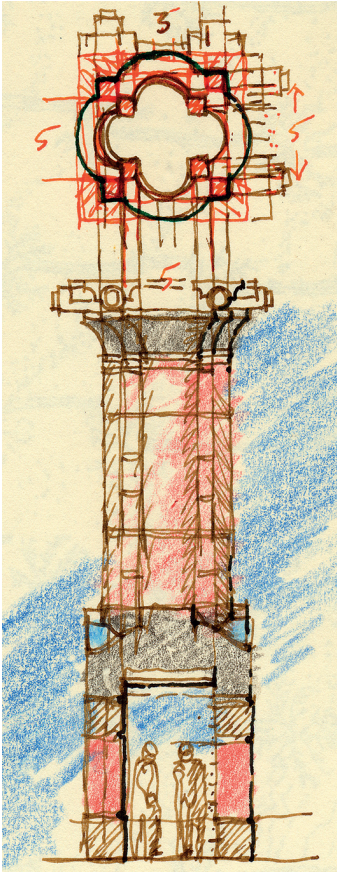
Axes 2 & 3 fixed
the position of
the 'informal'
entrance' -
the one that
connected to the
main body of
the campus and
was used by the
university for
everyday access..



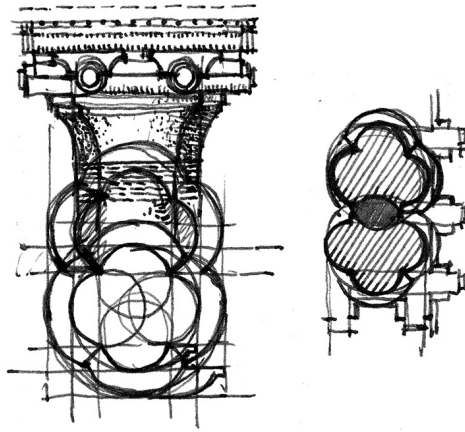
The Hypostyle admits of no elasticity in its insistence on a cubic grid. Infinity has no qualities. The development of 'difference' comes afterwards, in the slipping and sliding around the giant trunks of the forest, which is why it is such an intensely rewarding game.



The 'Leonardo man', top right, gives the scale of the Den Haag Rotunda. The ceiling is a saucer-dome which reveals the cargo of this raft as, inter alia, a discourse on number. I dislike 'titling' such iconic reveries. They are for the iconcally-literate cultures of the 21C - not for those who created the (soon-to-be-reviled) aniconic deserts of the 20C.



The Den Haag quatrefoil column and 'log and saddle' entablature, developed into its 'double-bubble form'.



The 'module' of the cubic Hypostyle of Duncan Hall, after an exacting ground survey and laboured calculations, turned out to be not any of the Astronomer Royal's six key numbers of the Universe but 18'8" (column centre to column centre).

A 6'0" diameter column then gave a ratio of column to inter-columniation of 18:38 or 1:2.11.

The 6th Order commonly generates a ratio around 1:2.

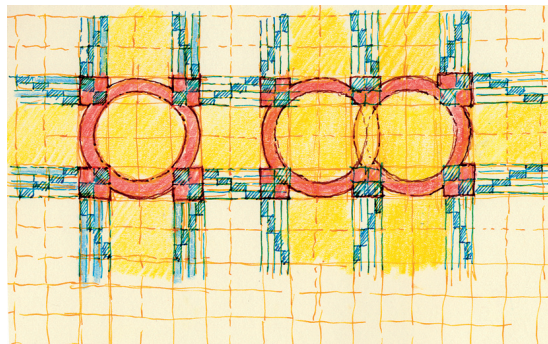
(The Greek term for a 1:2 ratio is 'eustylos').

It was 1.5M to 3M in the Judge.

1:2 would please a Neo-Classicist, but be much too close for a Modernist. But one must remember that no building needs more than 2/3rds of its perimeter to be window and, on the ground floor, a Walking Order Podium is a walk-through entrance doorway!

Liberated from numero-mancy and re-configured around a narrative, the Order is radicalised into serving 'commoditas'-as-circulation!

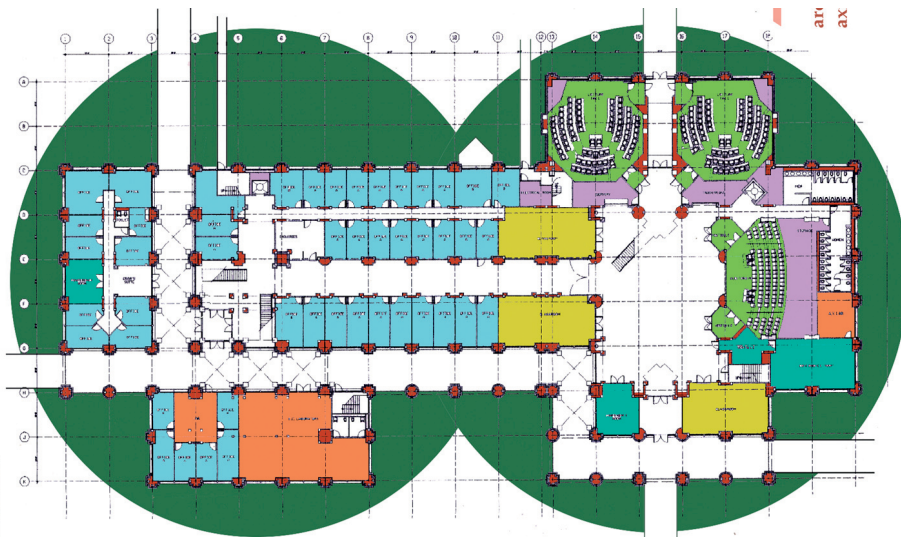
Plans of single and a 'double-bubble' 'Walking' columns. Note the four positions of walls around the yellow 'corridors'.



It was discovered very early in the Renaissance, that a column in an 'internal angle' gets swallowed by walls that intersect it.

Using big columns is a help. But doubling them up, in the form of what JOA named as a 'double-bubble' - (after the fuselage of the Boeing Stratocruiser of the 1950's) is even more useful.

There is only one 'double-bubble' in the Duncan Hall Hypostyle. It is our only 'irregularity'. One must be allowed at least one discrepancy!



1st Floor Plan.

- 1 to 3-person offices
- conference and meeting rooms
- auditoria and debating theatres
- jasmine ground cover in "figure-eight infinity loop".
- classrooms
- computer laboratories
- service spaces
- footprint of "Working Order".

The Plan of the 1st (or ground level) Floor of Duncan Hall. Set 1'6" (450) mm above grade to avoid floods, the plan is of two 'Greek crosses' joined at the arms. The English shelter from cold, windy, wetness in arcaded courtyards. The US campus has separate buildings for breezeways. Houston is wet, windy, sunstruck and hot. So we made an internal 'street' (air-conditioned) as well as external arcadings. But the buildings are still separated by airways.

No one much likes corridors. but when compared to the story of the column, the corridor is a novelty.

We have seen how the 20C wanted to abolish the 'big' columns of the Architectural order. But the 20C also wanted to abolish the corridor. It instituted the 'open plan' in which everyone lives in the same space. This has not worked. There was no privacy. Single-person households grow apace. The extended family, the best way to raise children and care for the old and infirm has collapsed in the Nordic West.

In Palaces, at least, there were few corridors before the 18C. The liveried footman was part of the furnishings. Then, after Rousseau and de Sade, everyone became 'human' - even the servitors. The corridor was born of the intimate privacy of the Rococo salons of the Enlightenment. Revolution ensued, corridors extended, privacy multiplied, spying passed from pastime into profession.

The 'yoked column' of the Sixth Order does a strange thing to the corridor -

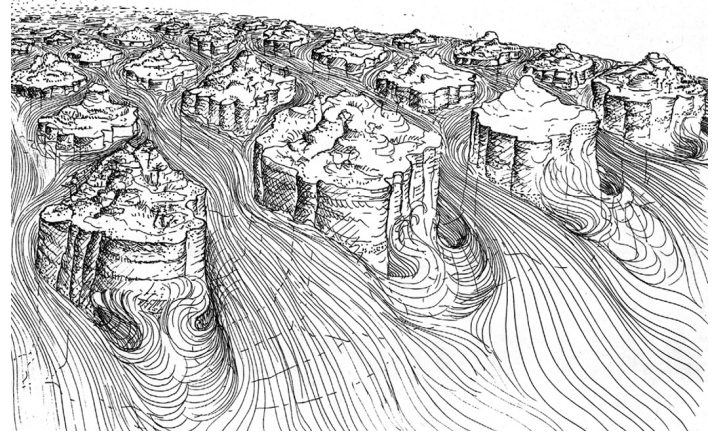
it 'monumentalises' it.

But this was already happening by the late 18C, the first age of revolutions.

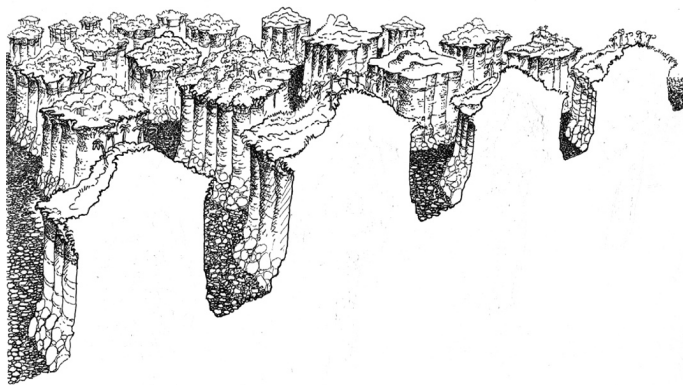
The planning of the Beaux Arts was no longer 'enfilades' of rooms without corridors, where one passed through one room to reach another. By 1800 circulation no longer penetrated the 'islands of solitude' that are the rooms of 'private persons'. Public, and even private, corridors of circulation flowed around these sealed-off spaces as if they were rocks. The 'city of rooms' was born (along with its sibling, the suburb of cottages).



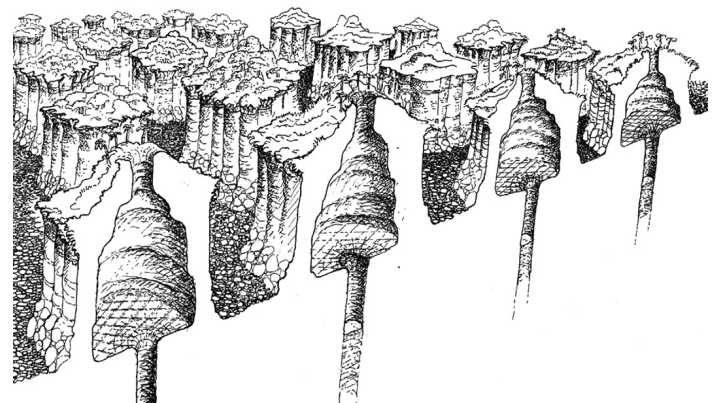
1. Rousseau proposed that men would not be happy until they became savage again, each living inside the island of his primal fantasies, spending their days bathing naked in the warm sea of infantile dreams. Freud confirmed this 100 years later.



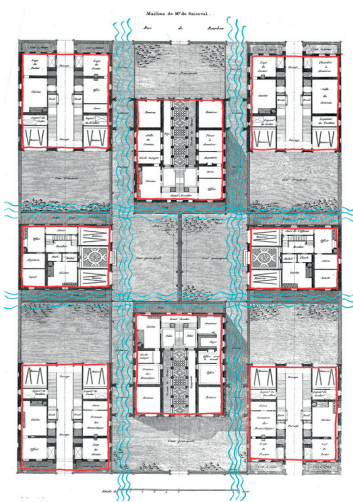
2. Then one day, with a convulsion, and a rushing roar, the sea began to drain away. Those who were swimming were swept far downstream and those on the islands saw the waters sink out of sight.



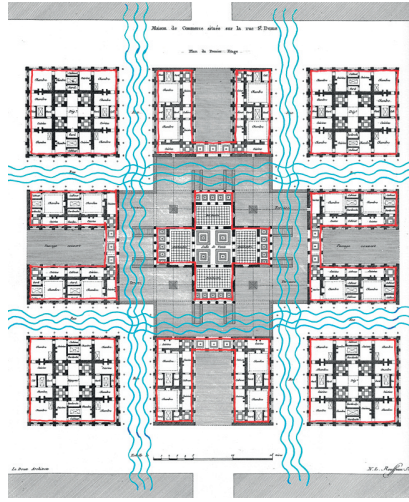
3. Some men found themselves living high above the earth, like birds without wings, in little island-nests, exposed on solitary hilltops. The others, that were swept away, fell to the bottom of deep, dark chasms. They lay gasping on the wet black stones, for there was no air and the sky was black.



4. Then the air rushed in, carrying cries that beat, in waves of sound, against the flanks of the islands. The men shouted to each other and dug into the island-mountains. They hollowed them out and opened a window up into the sky. Then, because its darkness disturbed them, they opened one down into the Earth.



Ledoux.. 'the eight (fully detached) houses of M. de Saiseval'.



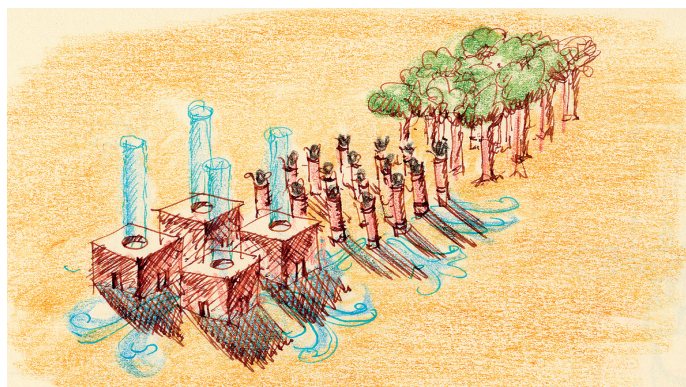
Ledoux 'Maisons de Commerce', R. de st. Denis. A 'City-block of Islands' vented by infinite space.

The plans emerging from revolutionary Paris at the turn of the 18C accurately prescribed this

'City of Islands'.

These 'isolae' are formed by the torrential flowing of unobstructed corridors, or streets, of space that pass straight through their compositions.

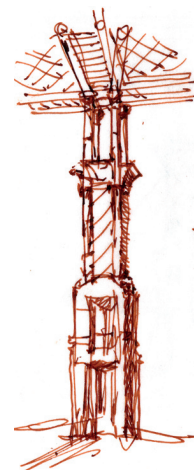
the Island-Blocks themselves, at whatever scale - country house to city block, are focalised around an internal 'public' space that is entered honorifically- on a central, symmetricalising, axis.



The tides of spatial infinitude can ebb and flow through the human lifespan only if the hypostylar figure descends from its forested analogue, through an 'Ordered' architectural syntax, into the islanded blocks of the city.

The early 19C lacked the aesthetic inventions of the late 20C.

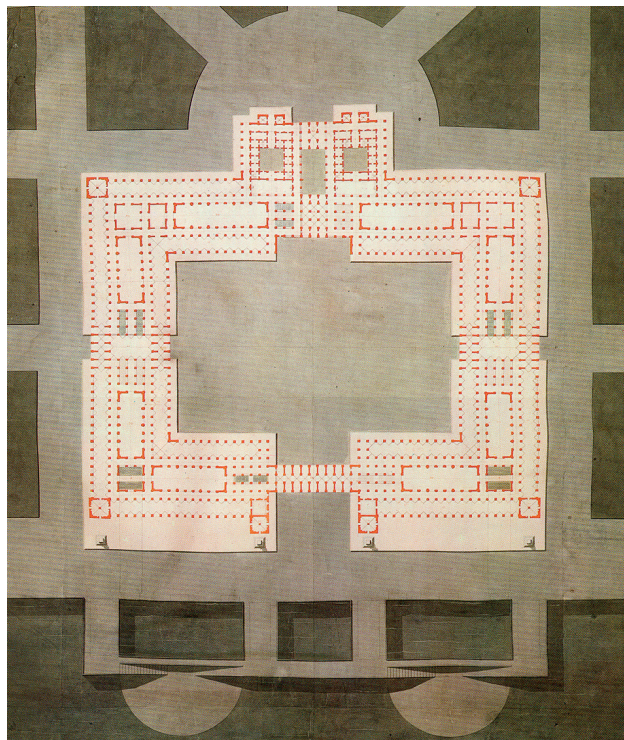
French 'revolutionary' city-planning failed because it adopted a Neo-Classical architectural technique, along with a cult of solidity and material, typical of the 18C Enlightenment.



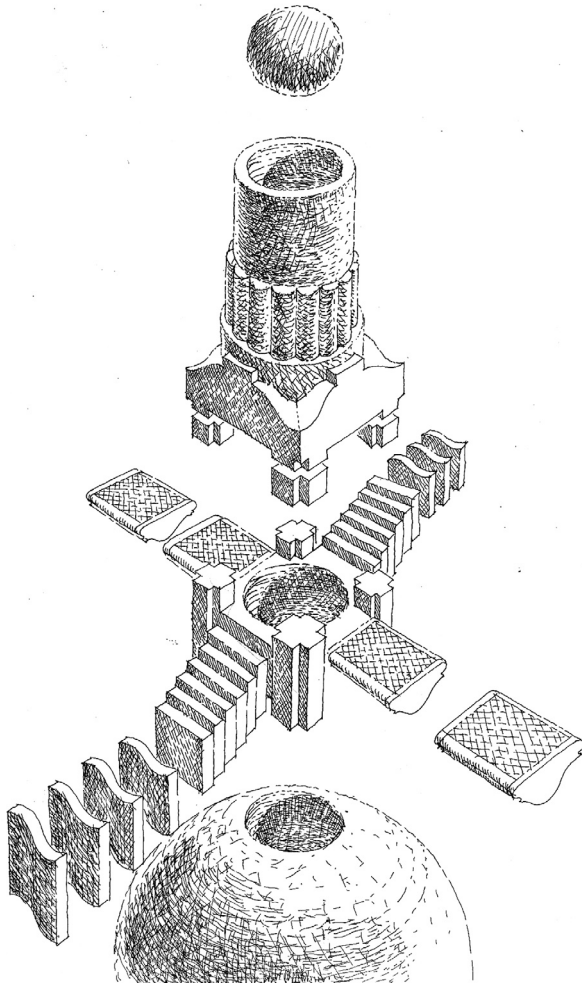
The Sixth Order, by its monumentalisation of the circulatory corridor, finally achieves the ambition of the 18C Parisian Le Notre -to link the palace/city block to the forest, the analogue of infinity.

We can state this today via the concept of self-similarity and propose that the yoked, or Walk-in(g) Column of the Sixth Order supplies this hitherto missing link. It reverses those architectural tendencies promoting a loss of privacy and individual eccentricity. It abolishes the oppression of the individual by the mass, which we find in the 20C.

The City of Islands, when mediated by the Sixth Order, reverses the oppressive transparency of the glass wall and the open plan, and substitutes for them the conceptual transparency of a lifespan whose physique is shaped by 'general narratives' designed to 'steady' the individual narratives of scripted surface.



Dubut's 'Greniers Publiques' 200 years back, in 1797, united a metropolitan scale of hypostylar city blocks with an hypostylar architectural Order. He only needed the novel utilities of the 6th Order.



The exposure of the aboriginal inner core of the architectural column as a beam of primal energy might disturb a culture more superstitious than our own. For us it should be only of intellectual interest in that it allows the modern human to physically 'go where no man has gone before'- for the sake of conceptual illumination, as well as convenience.

The professors and students of Rice were generous in their praise of Duncan Hall. They did not know of the peculiar momentousness of JOA's rescue of the despised corridor and its elevation to the status of monument. The students suffer from a new ailment, 'chromatic deprivation', when they leave its curtilage and re-enter the beigeworld. Everyone seems to enjoy colour and pattern except Architects.

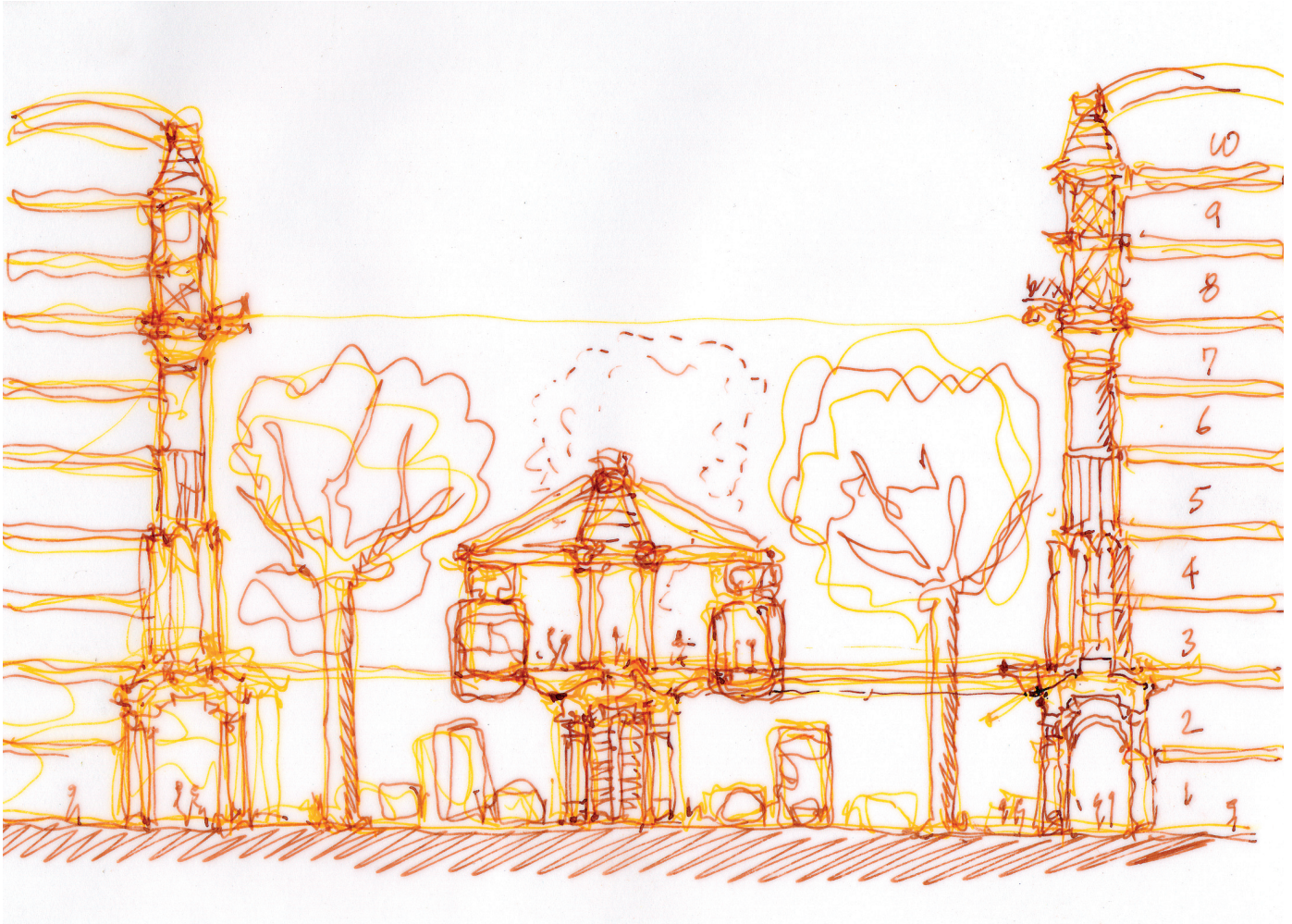
The Walking Order variation of the Sixth Order had been invented, back in 1985, to solve a land-use problem for the City of London, a place with some of the highest plot-values in the World.

But it was not until 1995, in Houston Texas, that it saw the light of day. It was at Rice University that this ennobling of the despised corridor, by becoming the element of 'commoditas' of an Architectural Order, finally occurred.

One can not walk through its columns without feeling 'centred' in the axial beam of its 'columna lucis'.

The effect upon the spatial economy of the Duncan Hall plan was immediate. JOA had been struggling to absorb huge 5'0" (1.5M) diam. columns of the sort we had used in the Judge Institute. Adrian James, of JOA, looking over our old projects, found the competition for Petershill, and our work for Lipton at Blackfriars. He enlarged the column module to 6'0" (1.8M). Suddenly all the giant columns vanished! They had become corridors! The Net to Gross became financially healthy. The project was built, costing, in 1996, £80/sq.ft - appreciably less than the £100/sq.ft (1994) of the Judge Institute, a project of similar size.

Adrian instituted a variation to the American abjuration to "enjoy". He would reply "enlarge" - an advice that did not seem out of place in Houston, city of moonshots.



THE NEW BOULEVARD: *The Sixth Order provides a capability for monumental composition that organises facades of greater height and, because of the technique of the Kantian Solid, more ephemeral materiality, than traditional facade architectures. This makes the 6th Order cheaper. Then, because of the reliance of the Sixth Order upon narratology rather than numeromancy, or technicity, it has absorbed chromatology into Architecture. From this the Sixth Order has acquired the ability to conceptually subsume and dominate the mundane, the puerile and the quotidian, thereby allowing them to freely exist under its aegis.*

But why stop progress at the boundary of single buildings?

The work of JOA had always been inspired, from its beginnings in the USA of 1953-4, by the need to invent an alternative to the city of suburbs.

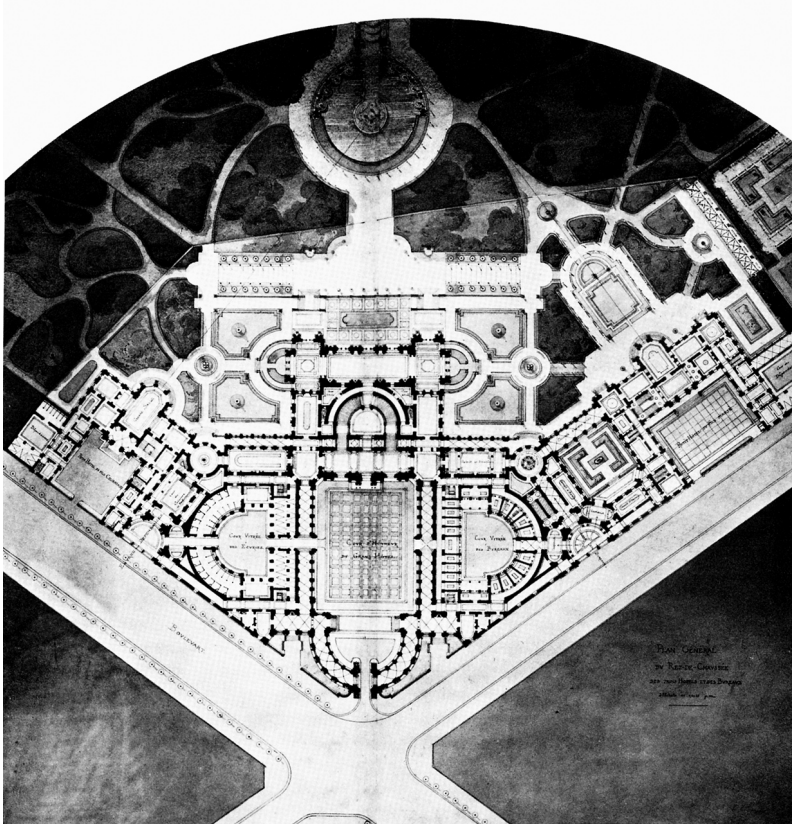
For just as the main agent of the destruction of an urbane lifespace has been the 'rustic' ethos of suburbia, and its agent the automobile, So the cure to the malaise, which was now killing the globe with atmospheric pollution and resource depletion, was the invention of an alternative lifestyle, along with all of its equipments. The brightest star on this horizon of universal doom and gloom is the idea of

monumentalising urbane circulation.

There should be a reinvention of the 'boulevard'.



The French 'Safège' monorail, now built in Japan, floats along quietly on soft rubber tyres. Its supports need only to be the brilliant and powerful architecture of the Sixth Order.



This plan of 1866 by Pascal shows tripartite entrances with a central space flanked by corridors and smaller, more private spaces. The beauty of these plans is that once they are realised by the diverse columns of the Sixth Order, they become 'universally-functionalised' to diverse utilities. The Service Order gives the lie to the failed formalism of 20C Functionalism by serving most functions in any room. 6th Order buildings replicate the old way that servants would bring whatever was needed, beds, tables, chairs and even kitchens, to the rooms that were being used.

Axial symmetry,

in which a design balances across its centre-line was usually out of fashion with 20C Architecture.

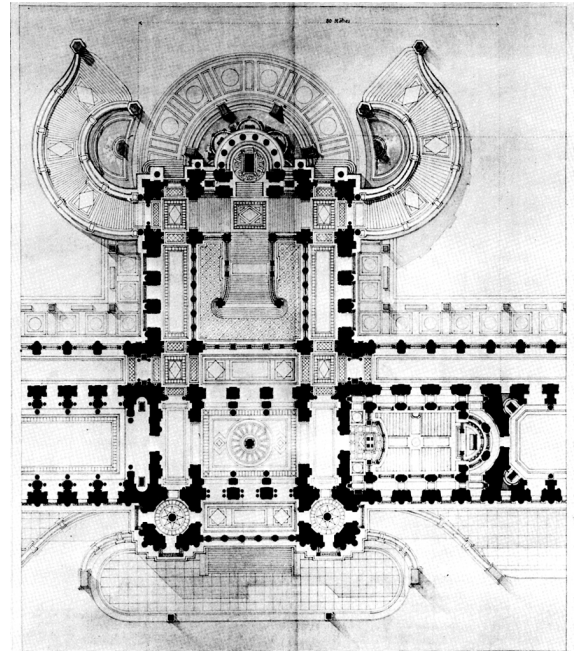
Axial Symmetry has either been misunderstood by the prevailing iconic illiteracy, or if grasped, rejected.

Socially, which is always architecture's primary function, the role of axial symmetry is to create the 'honorific centre'.

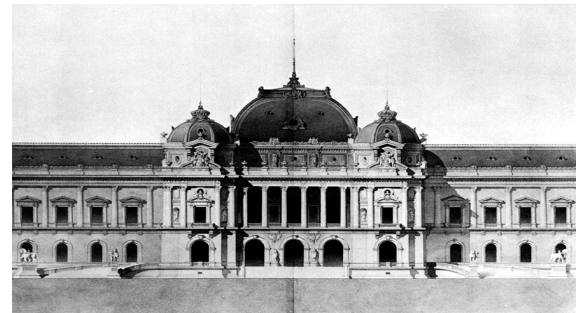
This is done by 'bisecting the circulation'.

One composes the more mundane rooms, buildings or districts to each side and obliges them to frame, and thereby to foreground, a major room, or rooms.

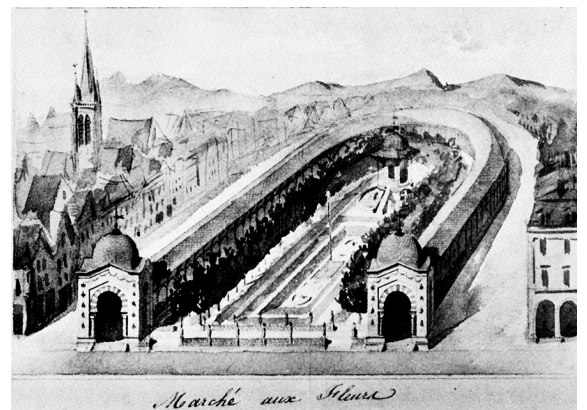
In the case of larger sites, such as campuses or even whole districts, axial symmetry 'creates' certain more 'honoured' spaces out of whole buildings, plazas, or even a complete Institution or district - such as the 'Place des Pouvoirs'.



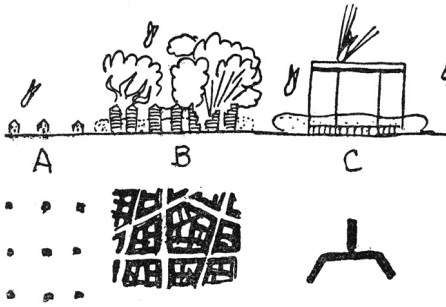
An 1863 plan by Brune 'monumentalises', the two circulatory axes of corridors by locating towers over them so as to denote their presence to the exterior. The central entrance is recessed and given less prominence.



The elevation of the 1863 design by Brune (above). The towers penetrate the entablature as the corridors pierce the plan of the building. The focal rooms are screened by an arcade at ground level. The colonnade of the 'balcony of appearances' acts a palisade, defending the public rooms from excess circulatory penetration while grounding the public rooms in the hypostylar matrix of infinity.



In Davioud's 1848 design for a flower market the split circulation surrounds the focal 'place' of the market proper. In 'monu-mentalising' it he universalises it so that its 'archetypal' topology could serve many uses.

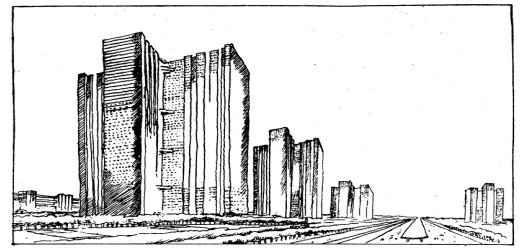


The 20C lost the principle of **Bisected Circulation** while retaining **bi-axial symmetry**. the result was the **destruction of social space**.

The destruction of the city as the place of **casual association and aggregation** was, for Corbusier, a **prime motive of 'planning'**.

Corbusier's desire to destroy all urbanity and replace it with a savage isolation should have destined him for the psychiatrist. He proposed bomb-proof roofs to his 'isolation blocks' - a futile fancy. The blitzkrieg that razed Central Europe followed his drawing by a mere 10 years.

Like many others, he feared the **advent of the mass of the new metropolitan citizens** and wished to install them in **vertical silo-housings** where they could be **identified, observed and neutralised**.



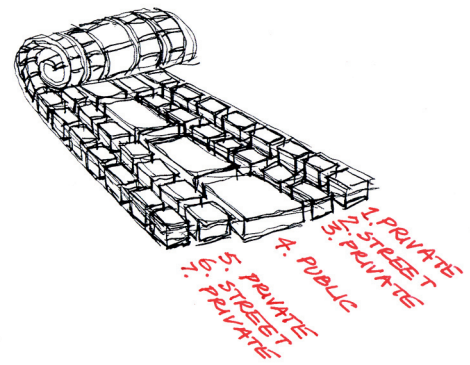
LE CORBUSIER, 1923. A CITY OF TOWERS

The towers are placed amidst gardens and playing-fields. The main arteries, with their motor-tracks built over them, allow of easy, or rapid, or very rapid circulation of traffic.

Corbusier's high-speed route slices through the city, flinging his giant towers to each side like the bow-wave of a warship. He creates a modern, liberated, City of Islands but fails to compose them to foreground the social space whereby the free citizen matures his new Polis-tical freedoms.

The **lessons of the nineteenth and twentieth centuries** are that the **river, that is the spine of the 'Republic of the Valley, or 'Polis', is the unveiling and unrolling of the spaces of free association** which are the **reverse of the coin of the 'privacy' of the City of Islands**. It follows that the axis of the **'fluvial narrative', is not a freeway carrying the private spaces of automobiles**. If the **Fluvial Narrative carries anything** it must always be the **spaces of association and 'Appearances'** found in a **public transportation** (that is more than a mere sewage system) for **'Walking Man'**.

The **axial and focal spaces of the modern city** should narrate the **'Time of human living'**. But, for this to be **'real'**, that is to be **'realised'**, this **'time of living'** (enfleshed by the **'fluvial' narrative**), must be situated in the Time of the inhuman, or **'superhuman'** realities of Infinity and the **beginning and ending of things**. This **symmetricalising 'foregrounding' of the focal and axial space of narrative**, served by a **'split circulation'**, extends upwards and downwards from the **scale of an individual dwelling to the districts of a city**.



In the **Sixth Order** this **strategy is given the generic name of 'spatial weave'**. Planning a **lifespace to create these qualities is to tailor it from a threefold, five-fold or seven-fold-weave**. The **cloth is unrolled and the design cut and stitched**.

The **spatial weave of Sixth Order space-planning is unrolled, ready to be cut and stitched into a design**.

Weave ONE - Private Buildings

Weave TWO - The Street

Weave THREE - Private Buildings

Weave FOUR -the Public Building -

This is the room of 'coming forth' - the 'polis'-tical 'space of appearances', described by Hannah Arendt, which is so lacking from mainstream Modernism.

Weave FIVE - Private Buildings

Weave SIX - the Street

Weave SEVEN - Private Buildings

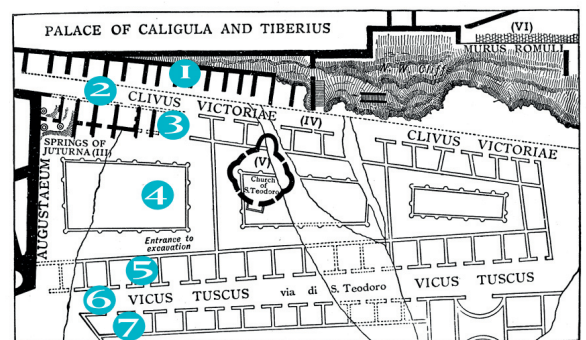
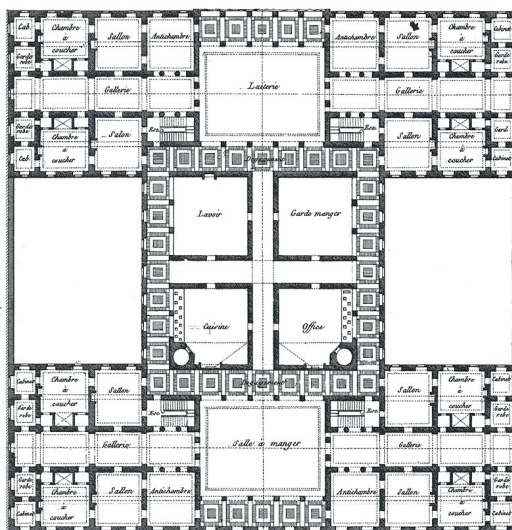
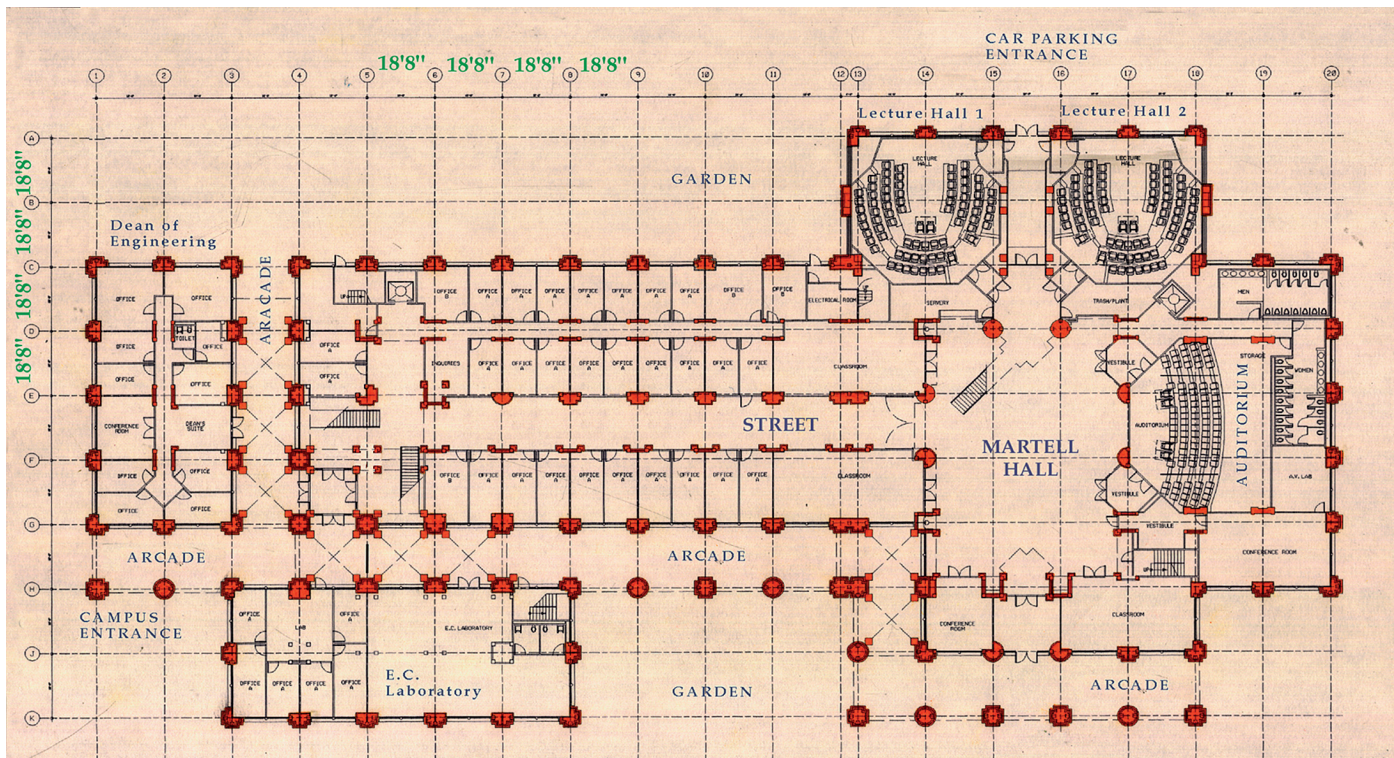


Fig. 47. — A Fragment of the Marble Plan with Clivus Victoriae and Vicus Tuscus.

A fragment of the 'marble plan' of Rome shows this simple idea of the 'split circulation' that focalises a more public space. Here two streets of 'private' buildings, running along the foot of the Palatine hill, bracket large 'public' atria and peristyles.

A 'country house' from Ledoux. The 'H' is the classic English 'country house plan. From the house up to the city, the 'bracketing' of the public by the private is as old as Architecture.

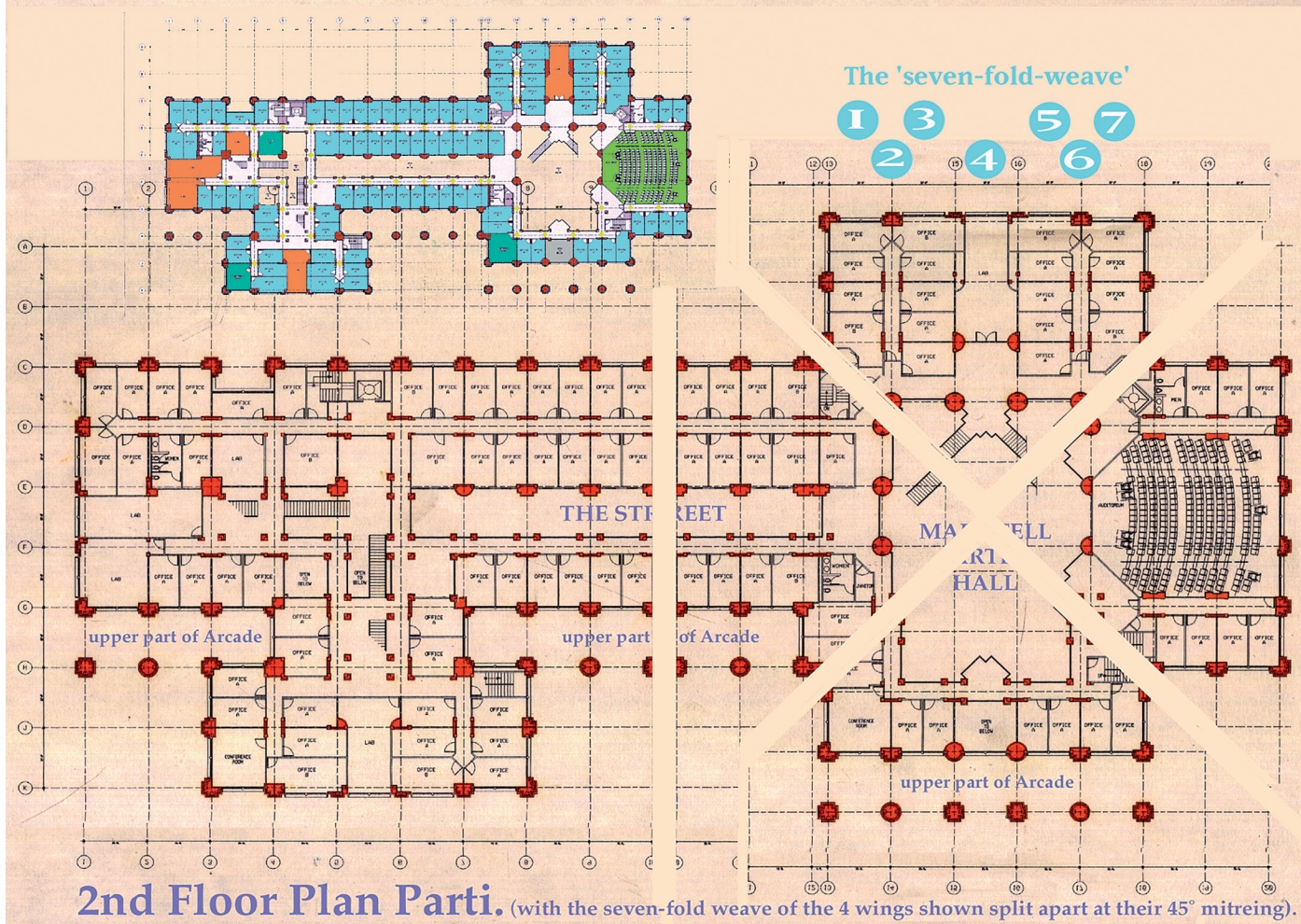


1st. Floor Plan Parti



Bays with a reduced headroom under the wings of the building.

18'8" square grid for the Hypostyle-Module of the 'Working Order'®



2nd Floor Plan Parti.

(with the seven-fold weave of the 4 wings shown split apart at their 45° mitreing).

First and Second (US numbering) or Ground and First (UK numbering) Floor Plans. Hypostyle module of 18'8" column centre to centre. Footprint of the Plan 45,000 sq. ft. (4,500 M sq.) Upper floor shown pulled apart along the 45° mitre lines of the 7-fold plan weave and the join between the two Greek Cross blocks. The Westernmost block has its Northernmost arm removed by proximity to Abercrombie Hall.

Duncan Hall of Rice University is cut from the Seven-fold weave. Four bolts of this urbane cloth are rolled towards each other and mitred at 45° to form a pair of Greek crosses, joined at the arms.

The 'module' of the 'weave' is the bi-axially symmetrical 1:2 column-to-intercolumniation of the Hypostylar Forest of Infinity. This 'cubic' symmetry enables the architect to cut and stitch opposing axes so that they join without 'seams'.

The game beyond this basic 'coupage' is the one first elaborated, ten years earlier (in the working-up of JOA's Sixth Order), at the Rausing Villa of Wadhurst Park. This is to juggle the brutal vastness of the basic architectural parti against the complex details of a real building. The ideal 'footprint' can come into being in mere weeks or even days. But its detail takes months of painstaking, collaborative design. Mies said "God is in the Detail" - his 'God' (as ours), is discipline!

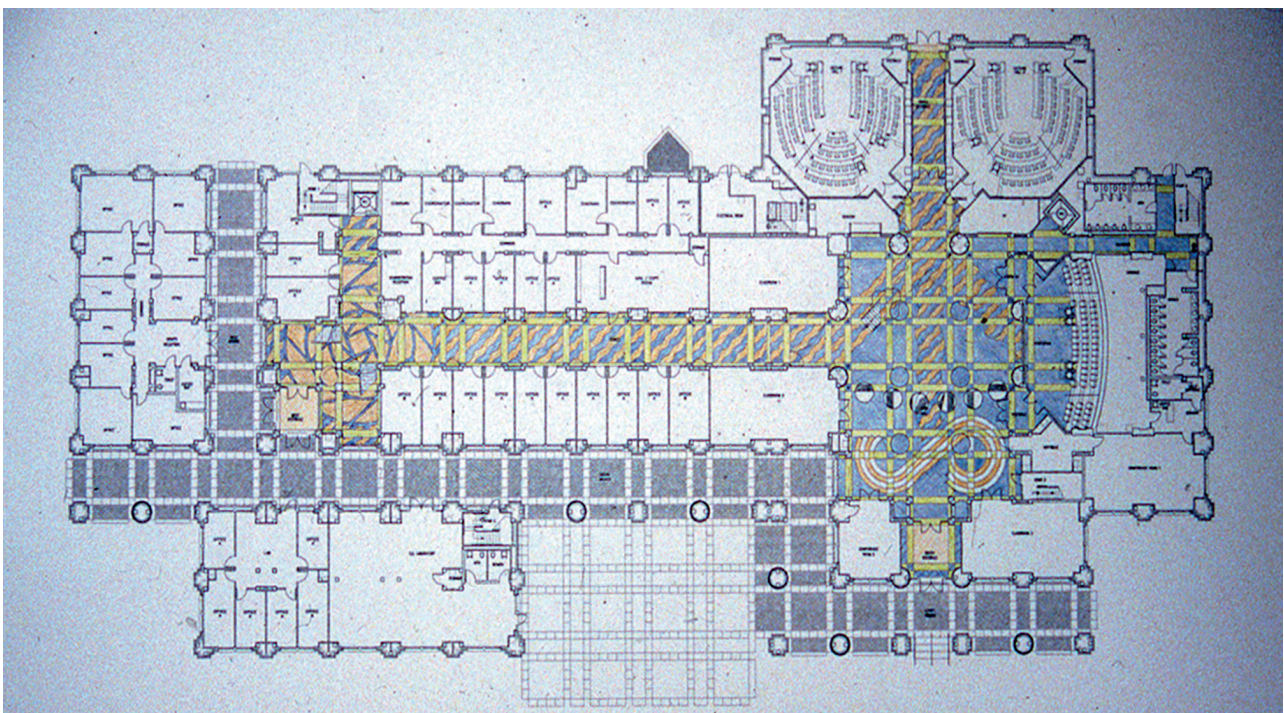
Weaves 1 to 3 and 5 to 7 are private offices and their (newly monumentalised, columna-lucis) corridors.

Weave No. 4 - of 'coming forth', springs high up in four external balconies that are outside the envelope of the building, with the sky above them. They are bracketed, on the facade, by pairs of giant columns whose capitals are jardinières flowing with plants from a variety of the ancient cultures that birthed Computation - those titled Vedic, Hellenic, Italian and Mayan.

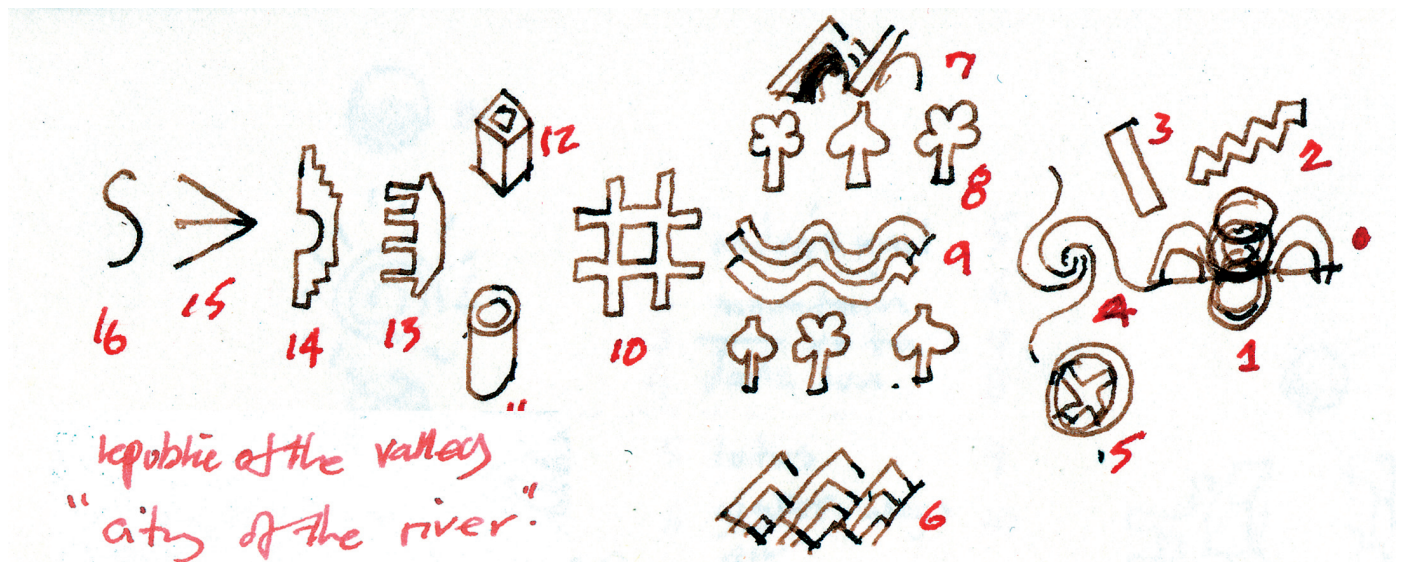
'Tributaries' stream down straight-flight stairs to join a whirlpool that is the Dionysiac 'Xoros' of the 'Crossing' before flowing down the 'Trunk' of the River-Street into Martell Hall - the City/Delta/Portus.



Looking across Martell Hall and down the 'River' named the 'Street' shows the red, green and blue walls of the offices of Weaves 1-3 and 5-7. They frame the three levels of public space, in 'Weave No.4, that 'enfleshes', in the theatrical space of an Arendtian 'Space of Appearances', the citizens of Computational Engineering as "Whole beings with bodies under the 'talking heads' of their Crt Screens".



Weave No. 4, bracketed by the private rooms, is inscribed as the 'whirlpool-confluence' at the Western end where occurs the 'informal entrance' from the Campus. The River-Street flows Eastwards into Martell Hall. Its floor is inscribed with the figure Δ of the 'Delta-Portus'. It serves as a three-level Elizabethan 'bazaar-theatre' space for all of the main public rooms. These can be isolated from the rest of the building at night, when they are used for outreach. The honorific entrance is off the Arcade - across the serpentine figure of Infinity. Here the 'republic of the valley' flows south, via the arcade and 'sallyport' of Lovett Hall into the 'oceanic space' of the city of Houston.



The Event-Horizons of Somatic Time, the Time of Living. The number is to an extent arbitrary and determined by the uses to which they are put by the users and designers. In JOA we use either sixteen, ten or nine event-horizons.

The failure of 20C lifespace-design, to continue the traditions of urbanity, is essentially due to the erasure, and indeed taboo, of the techniques whereby the human lifespace is invested with 'storyline'. The fear of 'what the story might be' is only exceeded by the 20C's failure to develop the capacity of Architecture to 'cargo' a rich 'freight' of Narratives.

For it is this 'legibility' of the lifespace that compensates for the necessary restrictions and disciplines of the urbane lifestyle. For 'stories' (rather than the oppressive banality of 'true' histories) to be told, in a fleshly medium like Architecture, their narrative must be mediated with a carnal lexicon.

One must be able to 'walk-into' the medium of this discourse.

Thus the 'positive' sciences of physics and chemistry, which are founded on the elimination of all sensory dimensions of a quotidian sort, while necessary to sound engineering, are of no direct help to our need for a storyline which can be directly apprehended by mundane experience. One cannot feel the 'scientifically-known' dimensions of the cosmos directly. If they are to be directly known by experience it will only be by the mediation of some artifice.

NEITHER IS THE CULT OF GLASS AN AID TO CONCEPTUAL 'TRANSPARENCY'.

'Transparency' is a metaphor for 'understanding'. But its transliteration as the literal passage of the visual ray through a solid wall is an epistemological fraud. What is 'revealed' to the spectator if he should gaze, through a plate glass wall, upon the back of a bench of dozing politicians, as he endures the ritual of debate, or upon wastebaskets and the knees of typists?

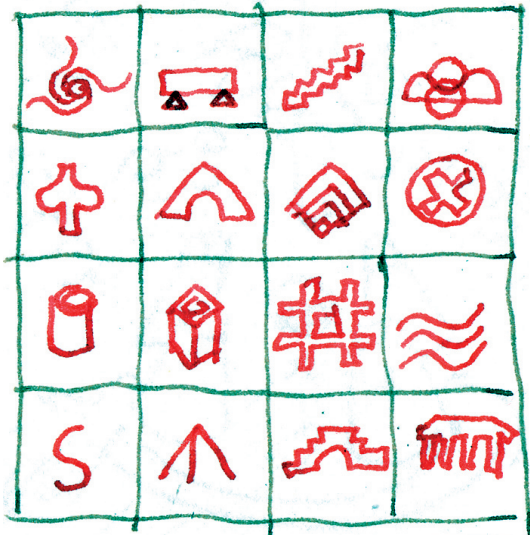
To know is to meet, to talk, to question, and to hear an answer. In short to interrogate and discourse. Democracy without discourse, as we have today, is a sham. Nor is it sufficient to construct 'debating chambers' in town halls. In any culture, that takes democracy seriously, the 'place of discourse' will be built-into its lifespace at every scale from that of the house through to the city.

A city which consists only of distinctly functionalised 'centres' is a city designed to deny free association and enforce a centralised control of public activities. Any space which can be 'locked' is private. In a civilised, urbane lifespace such spaces bracket and foreground the 'central space of discourse'. This can be governed, regulated, licensed and policed, but It can not be locked-up at night and on week-ends - like a shopping mall.



Wheel of the valley.

The sixteen-fold version of the fluvial narrative of 'Somatic Time', the 'storia' which distinguishes the event-horizons used by the Republic of the Valley.



The same 'storia' disposed as a 4x4 grid reading, like a snake, top right to bottom left. This allows more icons to reciprocate via verticals, horizontals and diagonals.



↑
10-fold elision

A nine-fold grid that adds its tenth icon through the modularisation of the nine-fold 'city' by which each icon is 'fielded'.

This 'Space of Sociation' I have also called the 'Republic of the Valley'. Its phenomenological 'istoria' is that of the **Time of Living**, that Paul Ricoeur calls 'Somatic Time'. This is the **Time of the Body**, enflashed, throughout the global Architectural Tradition, by the metaphor of the **River, from Source to Sea**.

It is time now to articulate its 'event horizons' in more detail, before going on to describe how they can be inscribed into the artificial lifespace of the built world.

1. the **Source**. The waters rise from a dark pool in a lightless cave, set in a cleft between two mountains, as does the Eastern sun, and
2. The **Rivulet**, or upper river, tumbling like a staircase down a rocky incline, and
3. crossed by a **Rustic Plank Bridge**, and
- 4: the **Confluence**, where the tributaries meet, under the dome of the natural sky, spiralling into a Dionysiac whirlpool congruent with the "Crossing" that is the 'Choros' of the Mythic Protagonists, and
5. the **Displaced Crossing** where the abandoned shell of the monument to the 'old gods' is enflashed by the 'tholos', or doorless tomb, which is open to the sky and the underworld/earth.
- 6: the **Mountains** that define the space of the valley, as walls bracket the cathedral with its flying buttresses, and
7. the **Caves** inside them, like the vaulted chapels hollowed-into the mountainous walls, and
- 8: the **Trees of the Forest** that flank the River like the rows of columns down each side of a nave, and
- 9: The **River** that winds lazily down the centre of the Valley, like the mosaic whirlpools of the Cosmati Family of craftsmen laid into the floors of Cathedrals, and the trunk of an ancient tree that lies between its roots and branches, supporting a culture of ecological/ecclesiastical heterogeneity.
- 10: the **Fields of the City**: rectangularised plots that lie on each side of the river as it reaches the plain. These are the naturalisation of the square boundaries to the floor-panels which cover the Nave, becoming the squared-off 'island'-hypostyle-forest-blocks of a real city, and
- 11: the **Square (Black) Tower** of the Western portal, and
- 12: the **Round (Red) Tower** of the same, and
- 13: the **Balcony of Appearances**, the place of power and honour, over the main gate, where sat the Emperors in their 'Westwerkes, and Conference Room No. 1 in Duncan Hall.
14. the **Arched** (or triple-arched) **Bridge** as a **City Gate**, the Open Gate, or 'Porta' that opens the way up to the 'sacred space' of the upper valley, admitting the storm-tossed souls coming into the Ark-Navis of the Church-City, and
- 15: the **Delta-Portus** whose tridentine, forking, streams, pass through the Hypostyle of formal trees, recalling the Papyrus forests of the Flood and the Forest of Infinity, and
- 16: the **Serpentine Coils of the Ocean** and the endless, interlocking, net of streets of the infinite city as they lap around its "isolae" of island-blocks.

The critical theorist **Jane Rendell**, mourning that "Liebeskind's 'interesting ideas' are inadequately communicated by his buildings", suggested that their flanks should be badged with fragments of text. If the foregrounding of ideas in the human lifspace is to be more than the mere revival of the inscription with dully monumental one-liners (as of old), then it's narrative scripts must be translated into a medium which, while not abandoning the discipline of legibility, is visually fertile to the point of seeding the flowers of a supergraphical decorative capability,

This enrichment is the product of a further narrative development of the storylines combined with a cultivation of iconic literacy.



The first (1993) version of the central icon of "The river".



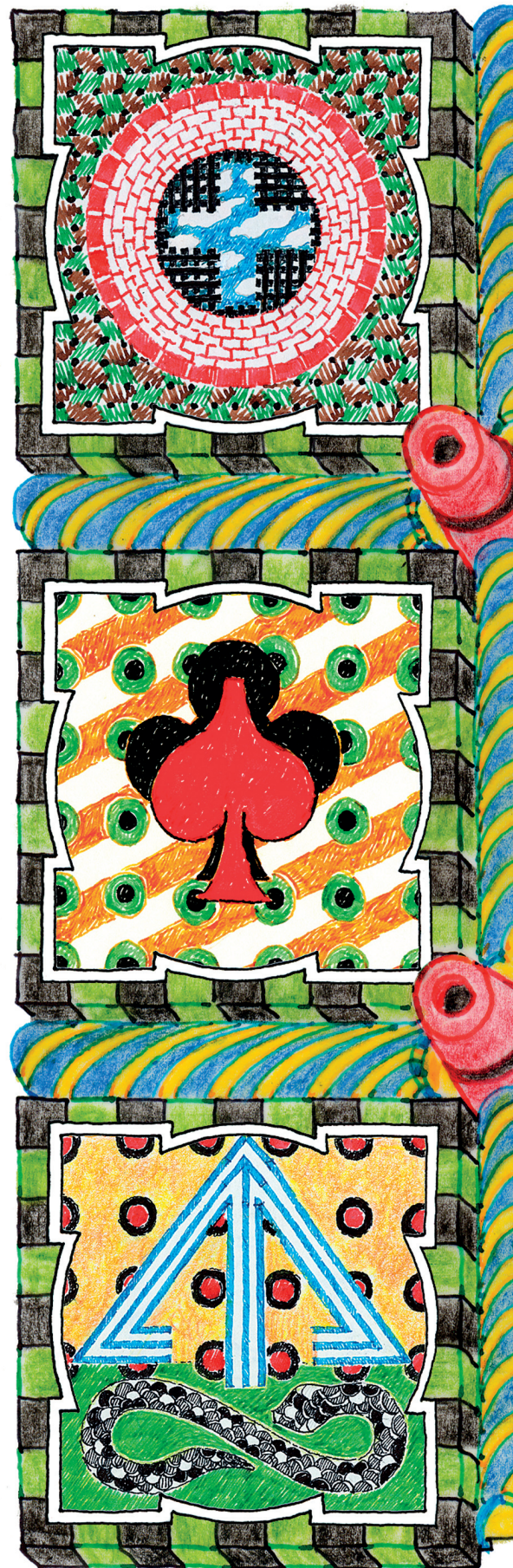
The second (2000) version of the central panel of the "Ten-fold Grid".

An example is the central, or fifth, icon in this tenfold* array, that of the 'river' itself, which was recently developed from the triple 'S' of a more literal icon of water into the figure of the hollow trunk of an ancient tree whose watery body spirals around its absented core.

This idea grew out of the extended analysis of how to rectify the 1940's Fondren Library, of Rice University - a building that wrecks the 1912 plan and is to be rebuilt.

Published in 'Duncanology 3', on the JOA web-site in April 2000, it proposed that the event-horizon of the River, lying between the 'Confluence-Crossing' and the 'City/Western Gate' was illuminated by its role as Navis, or Nave, the housing of the 'Ecclesia', or congregation. The decipherment compared this to the trunk of the tree lying between its more actively functional roots and branches and extended this analogy of the trunk to that of an ancient member, half-dead and hollowed out by time. The fact that such trunks are harbour to one of the widest zoomorphic diversities of the forest suggested that this was a useful icon for that part of the 'Republic of the Valley' which was most 'ordinary', in the sense of most free from denotation.

The great central body of the valley-society, lazily coursing between its vertiginous birth and its eventually sluggish dissipation into the ocean of infinity seemed well represented by the icon of a half-dead, half alive, entity that slowly revolved about its own invisible, immaterial, axis.



As the scale of the icon increases it both needs to, and can, develop more complexity. There is seldom time, during a project to pursue this laborious and lengthy process. It is a research from which a particular design draws the means to its particular 'iconic engineering'..



*The **Tenth Icon** is that of the 'City of Fields', ringed with the **Measuring Rods** of Time. They are **Quadrated** by canals in the form of a **trabica** of **canonic tubes** of water and light. The **other nine icons** are the **tenants/crops** of the **plots** of this **rafted 'city'**.

The unused ceiling-design of the Judge School of Management, and the floor of Duncan Hall, use only a small fraction of the iconographies invented by JOA.

**AFTERWORD for the TWENTY-SEVENTH LECTURE:
'THE BEAUX-ARTS WEAVE'.**

The design of Duncan Hall was far from easy. It took the better part of eighteen months. JOA had to 'teach ourselves' (usually the best way) about the Beaux Arts. About as much Theory on it exists in English as 19C Beaux Arts Planning exists in the British Isles - which is to say very little. What I named its 'Weave' was a revelation. It required me to take a newly negative view of Corbuser - his Ville Radiuse, his Plan for Paris and his city-planning techniques in general.

My 'understandings' were confirmed when I found that I could 'decipher' the Rice University Campus Plan to which JOA were about to contribute a building. I was able to use Ricoeur's phenomenology of Somatic Time to map the Event-Horizons of the Republic of the Valley into this almost-100-year-old campus. Some of the congruences were uncannily exact. Not that these 'homologies' actually 'prove' anything except the existence, in certain 'developed' cultures, of these archetypal narratives. The point of the exercise, as I understood Levi-Strauss to say, is what one learns from the use of such 'theories', and more than this, what can be made of this 'knowledge'. For, as Descartes said, "An idea is no good if it cannot be built as a machine".

I had to ask Paul Ridout and Andrew Pollard, of Gardiner and Theobald, JOA's trusty cost-consultants in London, to come over and banish the Americans fear of counting bricks, and other such arcana, so afraid were they of 'getting it wrong' (and getting sued). The tolerance, skill and good nature of the University's officers, their Professional Consultants, and indeed their Professors was sorely tried by JOA's dogged refusal to compromise. A point was reached when we were threatened by replacement if we could not bring the 'net to gross' down to an acceptable ratio. The day was saved by Adrian James' exhumation of the Walk-in(g) Order, from its long-forgotten invention as part of JOA's competition-entry, illustrated on page 11 of Lecture Two, for the Petershill Site next to St. Paul's Cathedral. After that, everything fell wonderfully into place.

It struck me that the Sixth Order was now complete. It had the three Vitruvian components. Its 'Working' aspect was Firmitas, its 'Talking' - which I called 'iconic engineering', was Venustas and its new addition, the 'Walk-in(g)' Order was Commoditas. One did not have to be an Architect to rough-out a 'Classical' building with all of the built-in Architectural culture that 'Classicism' brings. This had always been one of my ambitions. We will never have Urbanity unless everyone involved, both Public and Politicians, can play the Architectural and City-Planning game. This is not to say that one expects the Amateur to be as good as the Professional. But it is to say that it is only when everyone knows the rules, and can play a game, that the Professional's skill is appreciated.

When this happens the superstructure of my Profession will entirely change.

