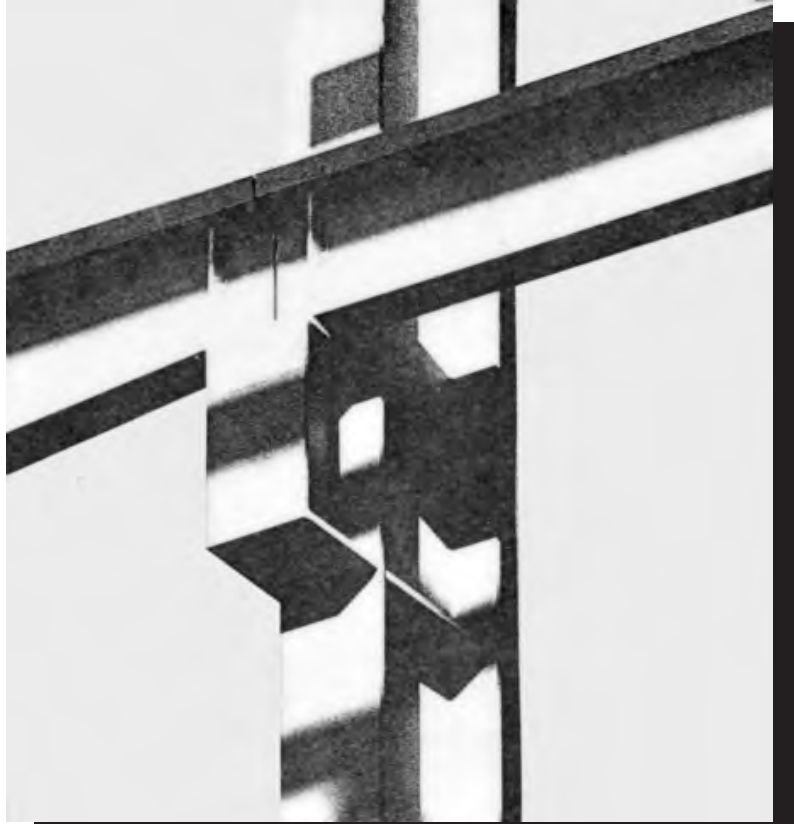


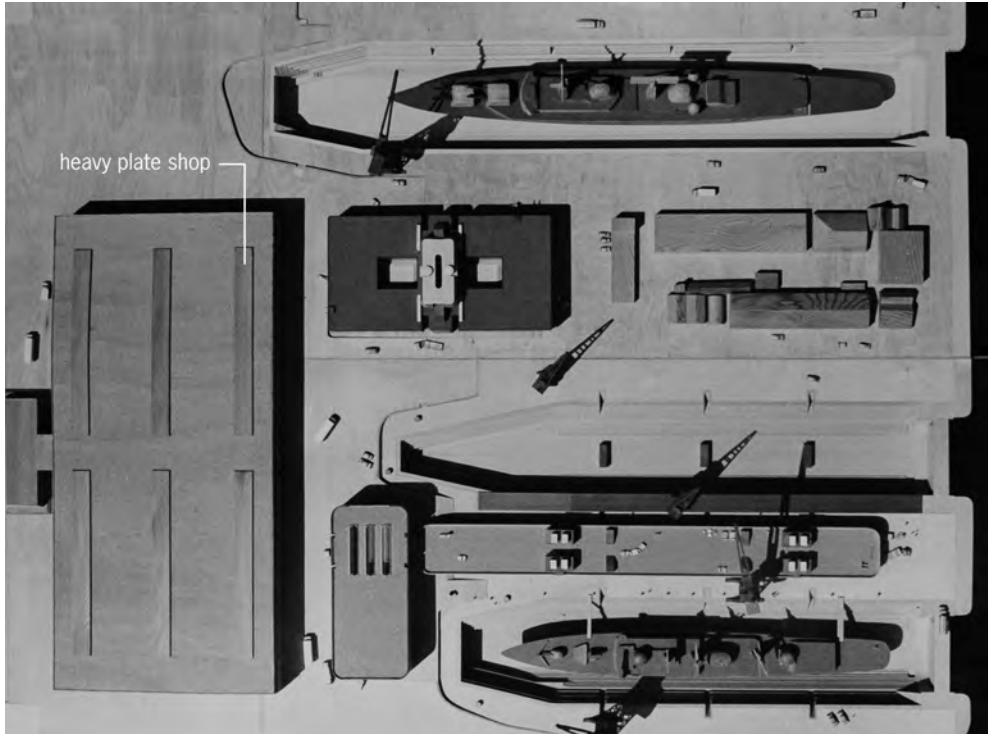


portsmouth dockyard - photo dave king



*I moved to **arup associates!** 'why' denys asked on my final interview - I had some lame excuse, but the truth was that **nick hare** had told me there was a job there & I fancied a change. three interviews later (with **philip dowson**, **peter foggo** then **charlie wymer**) I eventually accepted one in the laid back **group 1** where one of the two architects (**brian carter**) was leaving for the states. here I was introduced to portsmouth naval base, steelwork and the longed for design control...*

no 3 basin model by arup - photo dave king



first the 'boiler shop east'. this job was disregarded by the rest of arup associates as being too unimportant to ever be 'architecture'. charlie took it on and together we proved that it should be demolished, replaced and become a flagship for a massive dockyard re-development scheme. a good lesson, although not without tragedy and controversy. (colleague **roger mordecai's** suicide didn't help), but the **heavy plate shop** was a great success - FT industrial building of the year etc.

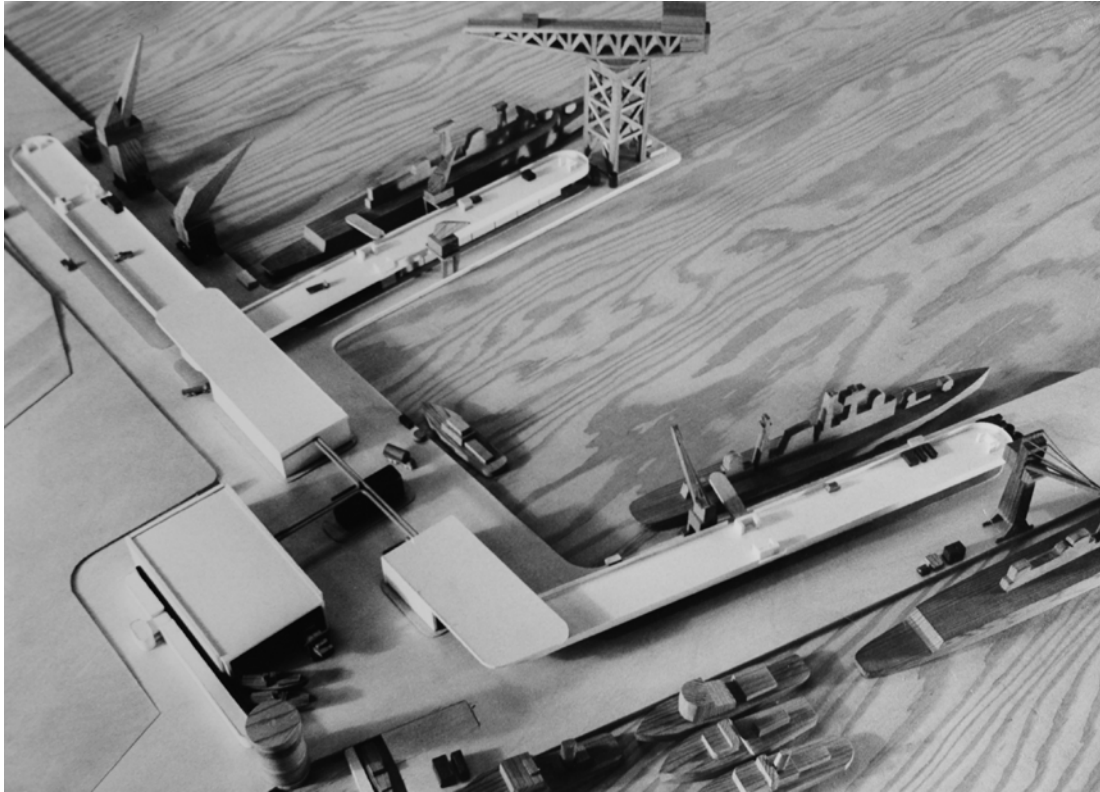
1970 - 77

heavy plate shop - photo by dave king

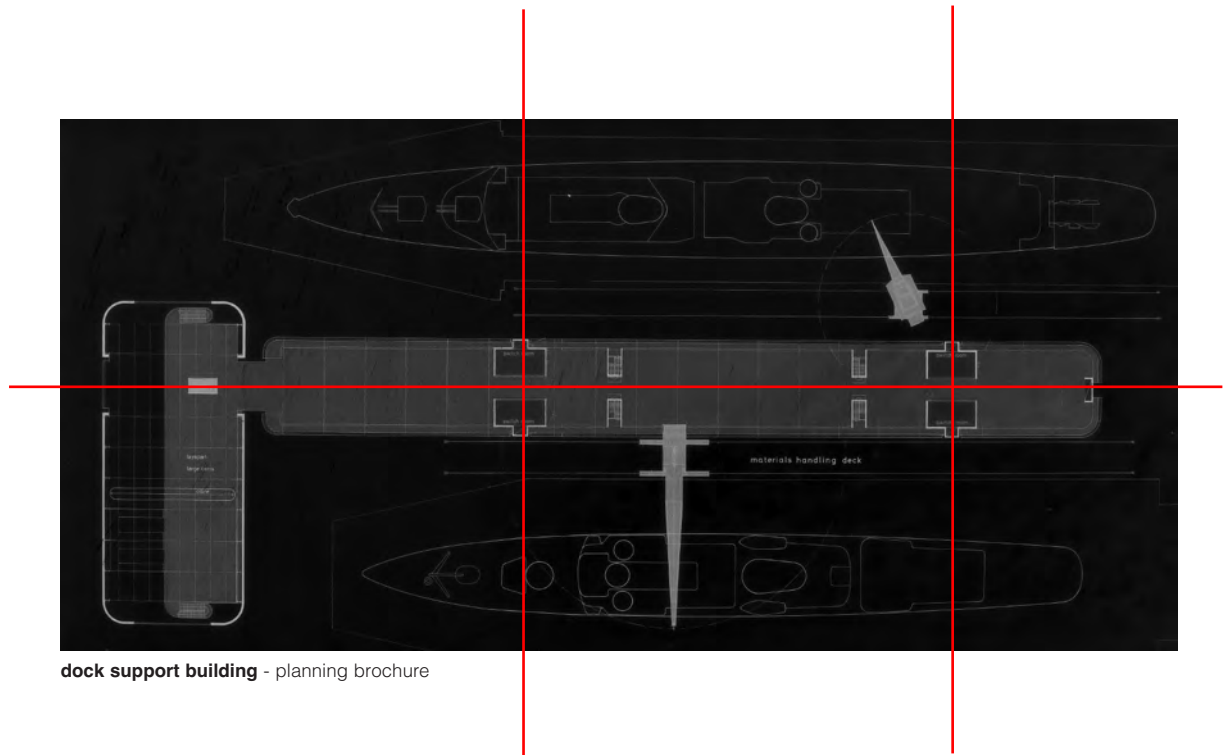


*the building accommodated 3 traditional shipyard trades - boilermakers, shipwrights & smiths (all of whom valued centuries old independence & separation). 3 massive bays were designed with 25 tonne overhead cranes, a 500 tonne hammer & a mass of machinery. the structure was conceived by **malcolm millais** recently joined from ove arup. colours were red and blue (with yellow internal doors black external). symmetries, 3 colours, mass & machinery defined the building...*

3 basin- model by shunji ishida



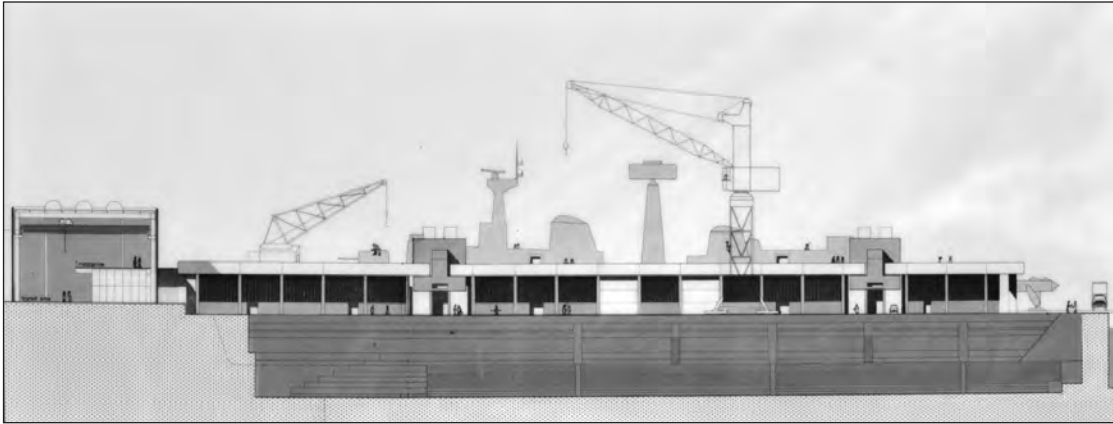
*the **no 3 basin facilities** were a logical extension of the heavy plate shop between a series of ship refitting dry docks. I can claim this design in it's entirety - **shunji ishida** (later renzo piano's partner) made a white card model and we were away! possibly for the first time I could see the symmetry of the church, the curves of the museum, coming together in an entirely logical 'shiplike' way - the narrow promontary between the docks forced the issue - there was no real alternative...*



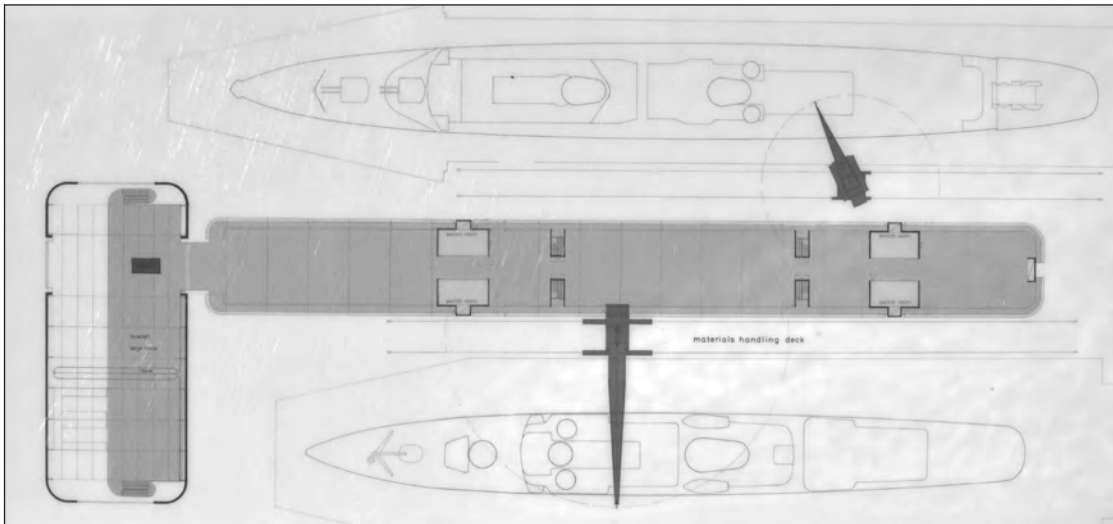
**dock support building** - planning brochure

*the ship analogy followed right through these ‘**dock support**’ buildings. the layapart stores at the landward end had to be handed due to site conditions, but otherwise everything internal was designed to follow the logical patterns of naval architecture. circulation routes were decklike on the perimeter, stairs doubled in either direction - even the messroom teapoints conformed to this logic. the red lines highlight a huge scissors lift and 2 massive service cores that punctuate the long axis.*



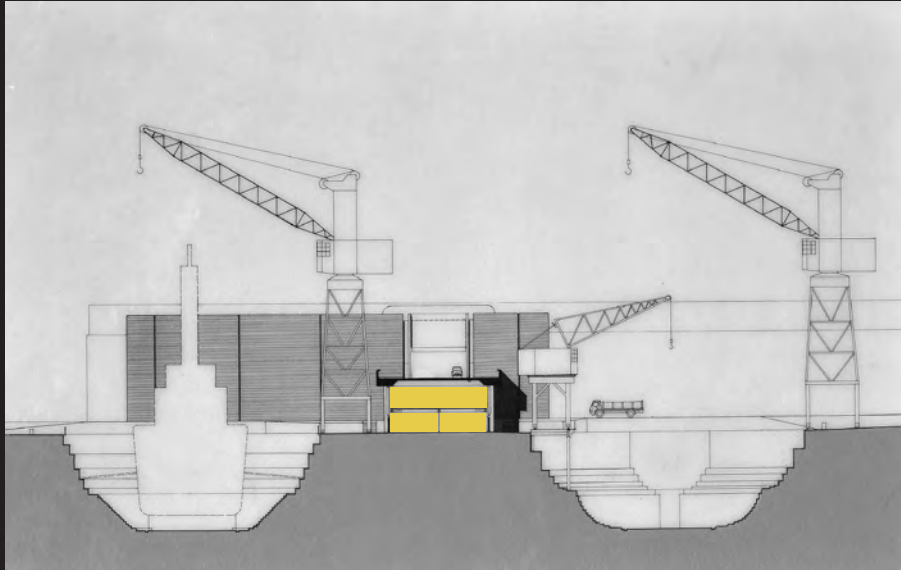


taken from an A4 brochure - dave king



*these drawings really are fragments - memories - part of a report to the **PSA** & the **navy**, they were quickly put together, photographed and turned into 35mm slides. what they do begin to show is the relationship between buildings & ships - the vast scale of an operation where gas turbine engines and large steel plates are craned around in very close proximity to the buildings. the transit deck leading to a 'layapart' store is an integral part of the design. service cores are a strong element...*

taken from an A4 brochure - dave king



*it was probably only by working on these building over about 6 years, that I grew to understand the real relationship between architects, engineers & all the other professionals engaged in such a project. **arup associates** was a 'multi disciplinary' practice - I was part of it... we had integrated drawings and a filing system with daily circulation comment & approval. we had a weekly meeting, we went to the site 'en masse'. no post, no phone calls - just a trip across an open plan office...!*



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workshop - photo by dave king



*this rare shot - found in an attic and brought back to life after losing it for years, somehow epitomises (for me) many important things about these modest dockside buildings. the colours - red/yellow/blue/white, the curves of the concrete, the 'table within a table' structure, evolved somewhat against the wishes of pre-raphaelite descendent - engineer **malcolm millais**... but perhaps most of all, the late photographer **harry sowden** - here seen in typical cameraman pose.*

canteen tea point - photo dave king



1970 - 77

*another rare picture - also a portrait!. **mike jones** the resident engineer later to study architecture and set up his own practice, seen at a very symmetrical tea point (with twin boilers...) the dock support buildings in the naval base were so much like ships that they abounded in such formalism and as architects we followed 'ship architecture' slavishly. the logic was inexorable - a thin building serving a ship on either side was really just a landbound third vessel - or so we said!*

service core dock support building - photo dave king



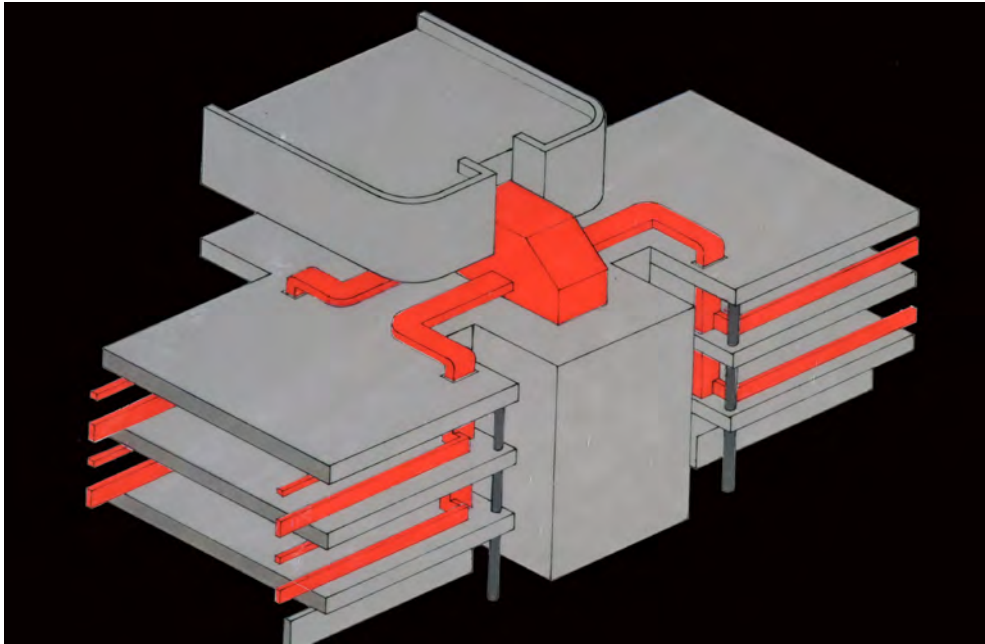
*so as we moved through this project from difficult political beginnings, cost problems plus all the other associated niggles (quality was rarely an issue though - only the best for the MOD & the navy!) our team became very close knitted with long term friendships born. portsmouth is where I took up sailing again, where the sea got back into the bloodstream. **mike jones** our site engineer bought a boat, then we bought one together. **derek pike** then joined us - the job became a lifestyle...*

workshop detail - photo dave king



*and with lifestyle there grew an obsession with detail & colour. robust detail - fit for purpose. a vocabulary, a language - primary colours reminiscent of de stijl and by association the bauhaus, breuer and corbusier. the buildings in portsmouth naval base are on one hand run of the mill semi industrial, on the other a creative production by a group of people who learned together in an alien environment how to be happy as architects, engineers & quantity surveyors - it worked...*

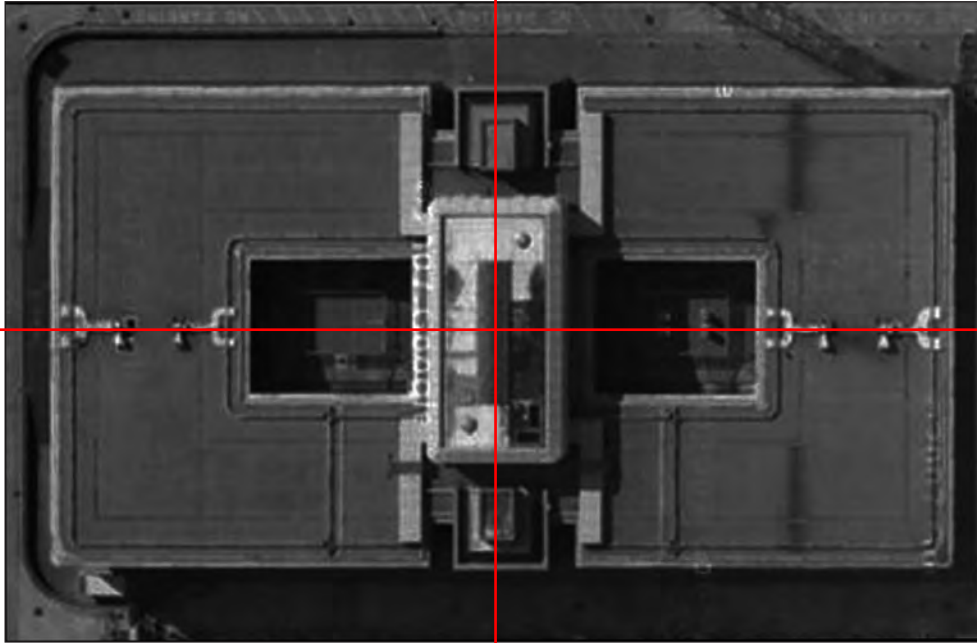
taken from an A4 brochure - drawn by dave king



*after the no 3 basin dockside buildings two more opportunities arose. a central office block with 11 different departments - individually accessible, and a port auxiliary (PAS) building. the offices almost demanded a rigorous symmetry with a logical servicing system. first sketches indicated this anthropomorphic arrangement. there were other difficult client/user requirements and I produced a comprehensive design report with the help of **jan van rooyen** recently joined from lasdun's office*

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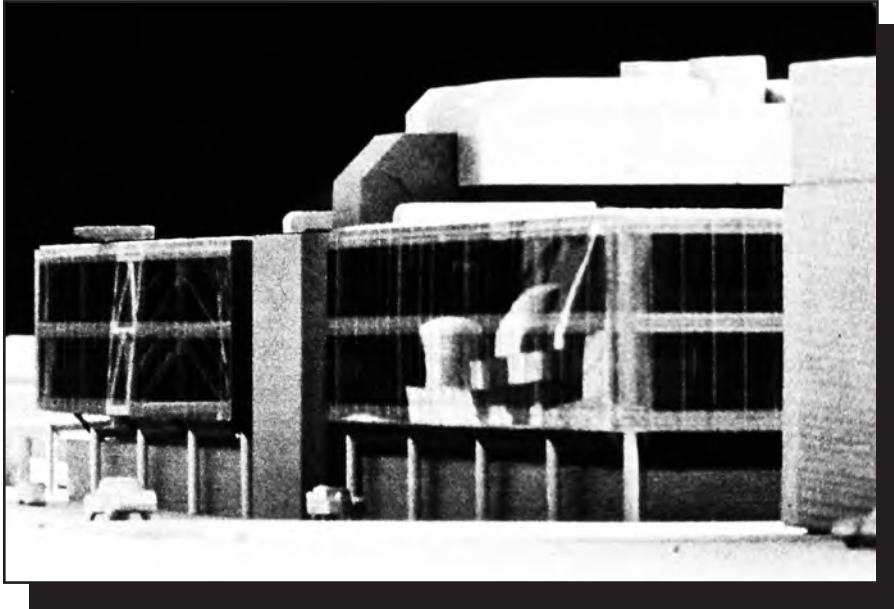
from google earth 2014



1970 - 77

*this office block was 3 stories high with workshops on the ground floor. to make things a little more difficult, the 11 departments all seemed to exist in a state of rivalry... we had to deal with each one separately trying desperately to retain a believable planning grid with the flexibility to allow small offices & large open spaces. at the time **dick raines** in another arup group was designing bush lane house in the city of london. portsmouth was an entirely different concept within the same firm.*

taken from an A4 brochure - photo dave king

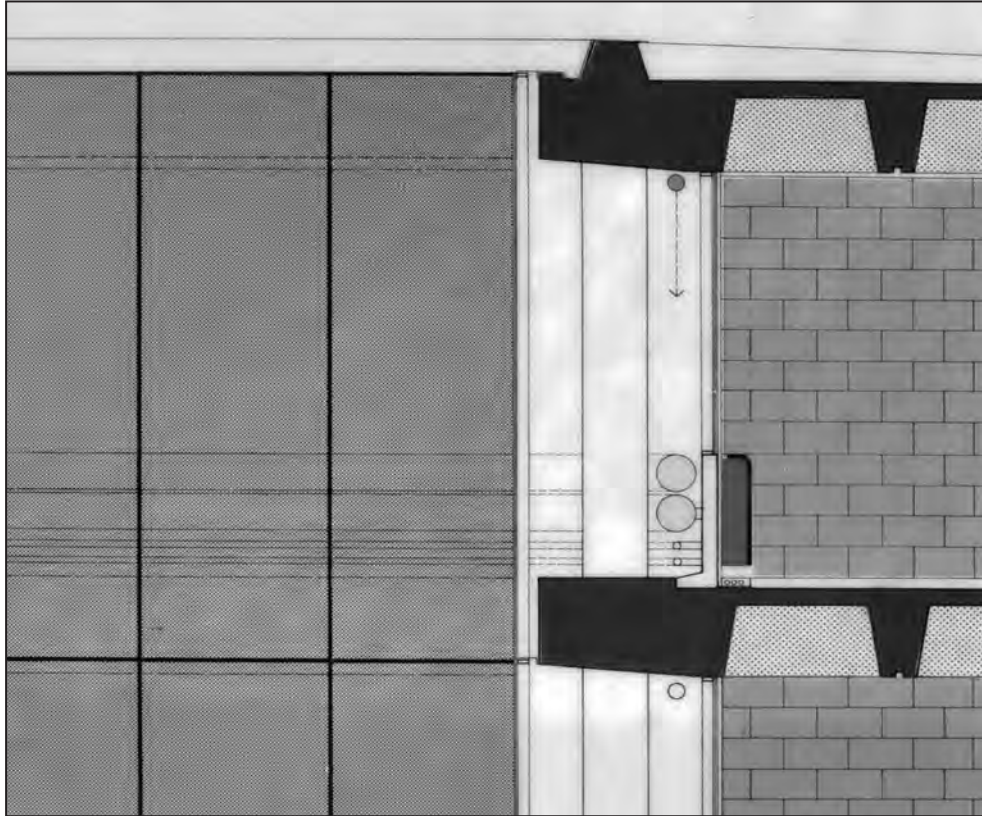


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*arup's had an excellent model shop - **julian** (jelly) & **david** were the stars, with **tina** in attendance... in those days a trip up charlotte st to check progress was almost a daily affair - in many ways a social occasion. it wasn't unusual to be waylaid by **fosters** outside the new kebab house for a glass of retsina. all arup's models were to be made from hardwood - a dictum handed down by '**philip**' (**dowson**) - and break it at your peril! I did (once) spraying grey and primary colours - bad news!*

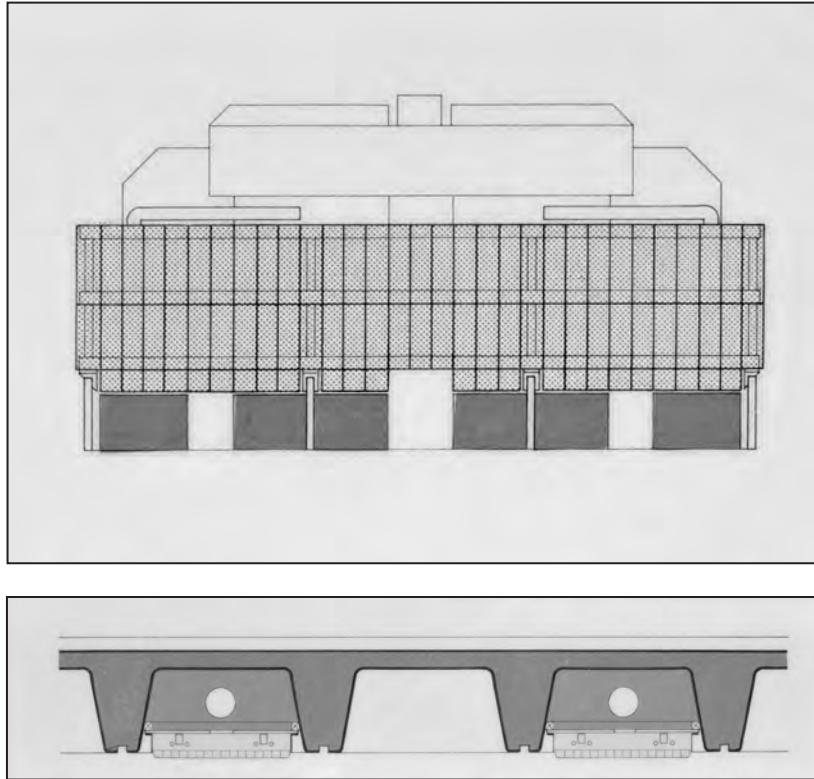


taken from an A4 brochure - drawn by dave king



*a major technical problem for these dockside office was noise... well over 100db at a distance of about 3m caused by pneumatic hammers working on steel & aluminium ships. to counter this a wall with a 900mm air gap was devised providing an internal 45db. triple glazing was used externally. **dick pearce** our HVAC engineer worked out a heat reclamation system making good use of this gap. warm air was reclaimed and fed to perimeter induction units via low pressure plenum ducts...*

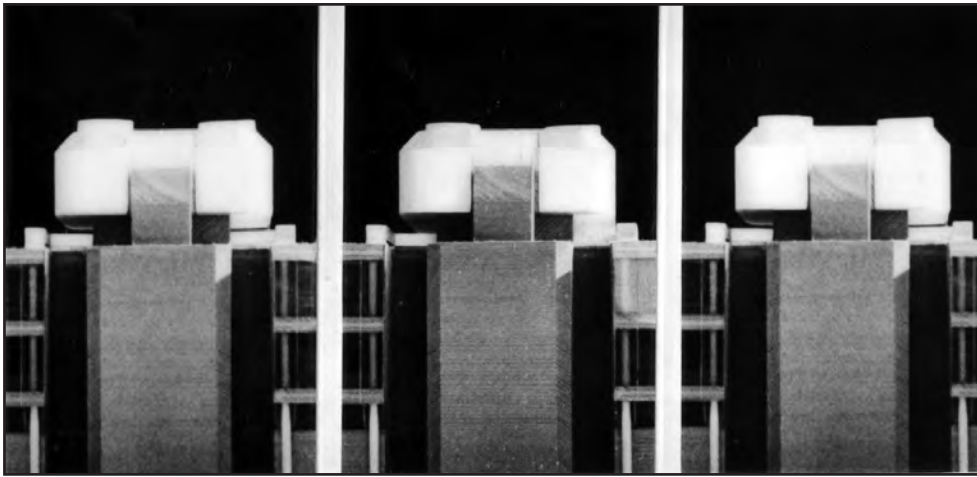
drawings by dave king



1970 - 77

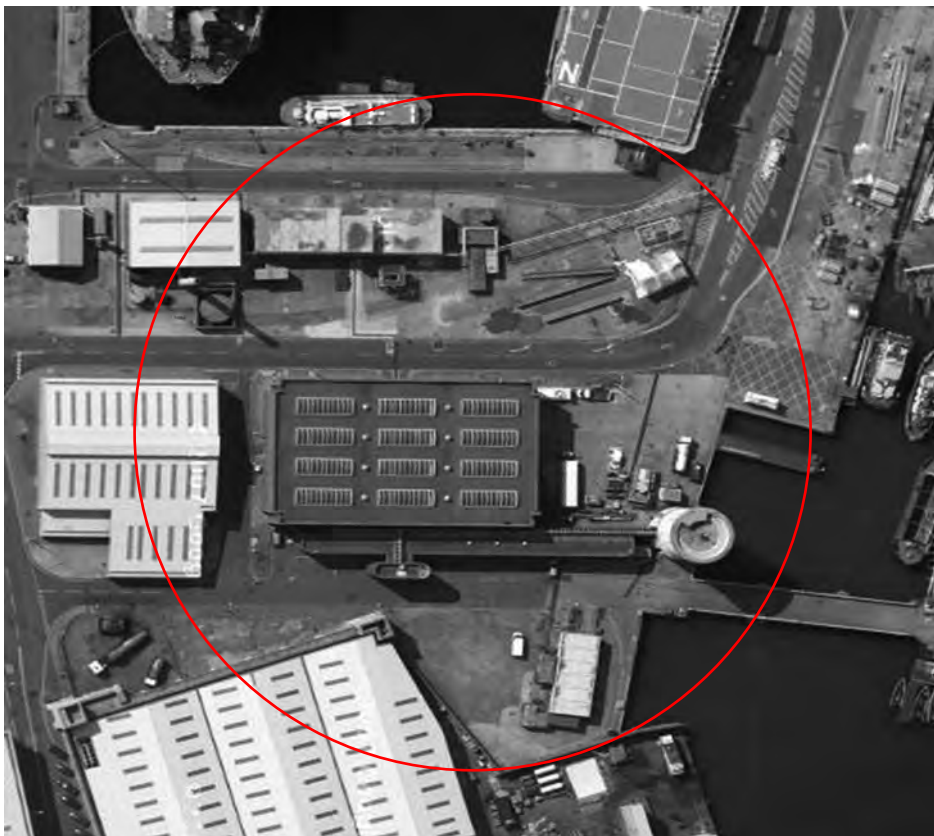
*another innovation was the 'air slab' - taken from an idea used on the truman's brewery project in brick lane, but made considerably more elegant by using round holes, this was a method to use a simple insitu concrete coffered slab as an extract plenum drawing air over the light fittings thereby cooling at source. I took this building to scheme design, then the project was cancelled. later, after I'd left the firm, it was re-instated and taken to site and built by another colleague **mike edwards**...*

photos of model - dk



*a feature of the no 3 basin offices which could not be ignored (whoever took on the build process) was its pervasive symmetry brought about by the central siting and the necessity for all 11 departments to have quick and easy access to dock operations in all 4 directions. the central core with its unmistakeable 'conning tower' appearance formed a fulcrum and allowed services to spread throughout in an anthropomorphic logic. the photos above celebrate this in an abstracted form...*

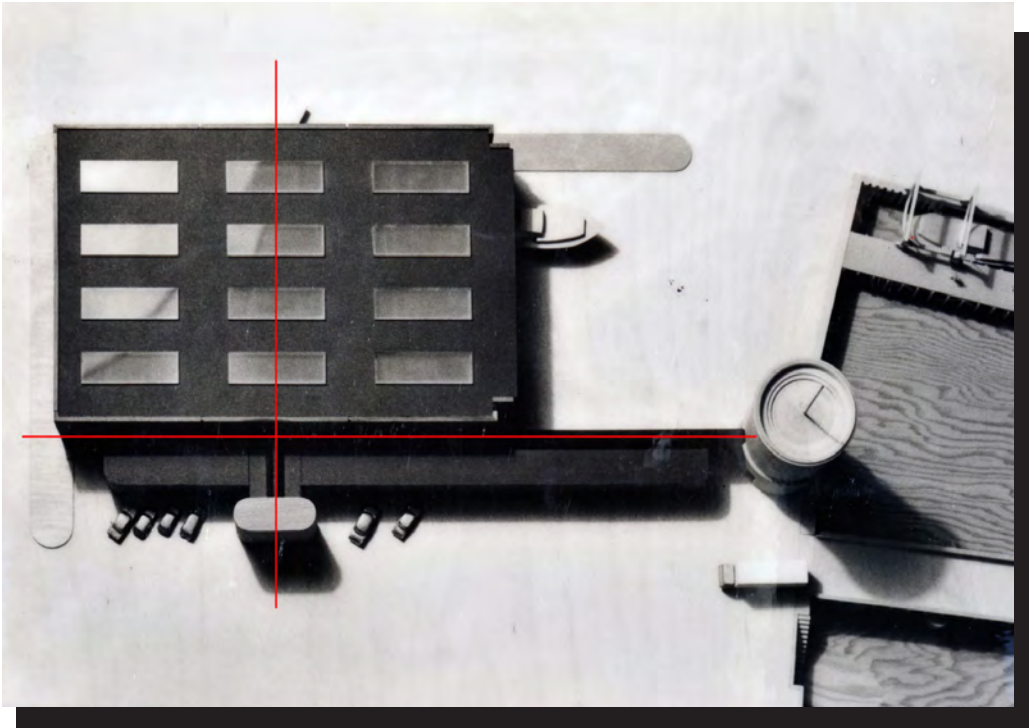
taken from satellite view



1970 - 77

then to the port auxiliary service (**PAS**) building. PAS boats can be dockyard vaporetto style ferries or tugboats, recovery vessels etc. they were required to be brought ashore for refit, and this process had to be controlled and administered. so a 'boatyard' with a shed and a lift with a site on the north wall of the base fronting the ferry port was to be used. a grade II listed clock tower was to be included and re-furbished in the process. the boatlift was a very new innovation in 1972.

model arup - photo dave king



1970 - 77

*the PAS building was one of those friday afternoon designs... a hasty sketch - off to the pub then back on saturday to draw it up. my idea of a 'sketch' was to draw fairly accurately - sketches came later when I knew what the thing looked like! as it happened PAS was easy - large workshop, a glass corridor connecting with the clocktower and forming a break between the workshop and offices. a minor axis allowed the escape stair to counter the clocktower's 'heritage' presence...*



PAS building - photos by dave king



1970 - 77

*PAS had its moments - I left arup before it was entirely complete. **george simpson** (from aberdeen) became the job architect for the build, **tom taylor**, then our contract admin man, dealt with wimpey. the boatlift (an american device and only the second in the country), had to be part supported on a timber finger jetty, part on dry land. **bob gamble** one of our engineers had the intricate task of resolving differential movements between the two. but my details survived - just...*

PAS glazed link - photo by dave king



1970 - 77

*in PAS, although not the biggest or most dramatic dockyard project, a few features that recur over and over again in my future projects are found. round windows to the officers rooms, curved glass, careful integration with historic buildings. where did the round windows come from? at the time they were not common. a visit to **james stirling's** student residences at st andrew's university was probably the culprit, along with a his beautiful upside down axonometric in that month's AD...*



layapart store - photos by dave king



1970 - 77

*for a time (1970 - 77) portsmouth projects provided 50% of **group 1** arup associates work. for me they gave almost unheard of opportunities to design in a particular way. working on the dockside suited me and we all got on well with the navy and the dockyard time & motion people. there were many stories, but out of it all came a way of designing started in liverpool, given confidence by denys lasdun, and helping to form a language for king mcallister's work & latterly - **shedkm...***

PAS 2015 - iPhone image from the 'mont st michel'



1970 - 77

*and even now - over 40 years later in a kind of twilight where I still occupy a workstation in a shedkm studio no more than 300m from our flat in the barbican, I'm reminded of those days every time we leave portsmouth for france or spain on the impossibly evocative **brittany ferry**, yes - those buildings still exist behind the dockyard wall - only to be glimpsed from the harbour.... **portsmouth**, the dockyard, the navy, the boats - all go to illuminate an era, long gone but still as alive as ever.*