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3

## CONTENTS:

Page


The Cu'ckoo's Nest ......................................................... 12
Letters to the Editor ...................................................... 13





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## TERTIARY EDUCATIONAL REFORMS

The forthcoming reforms in tertiary education will definately affect the present structure of the B.E.\&A. course. Talk of restructuring the course has been going on ever since mention of the reforms had been hinted. This restructuring will be expected to take into consiaeration the new concept of student worker.

In principle the invioduction of the student worker concept has a number of positive attributes. Giving the student an opportunity to touch and be on actual work setes and offices would definitely be beneficial. the rigidity of the six month study six month work scheme is what is very dubious. "To most this looks too rigid a nethod for an educational scheme and more flexibility is desireable. Other gostion merlse still lie behind entry qualifications and actual Jear to yodr examinations, both written and practical. On tlese subjects only a vague outline has been revealed. Until more details are released wo reserve our right of comment.

Worth considering would bo tho setuing up of an Archo \& Civil Eng. School which would toice up acturl projects and "use' the students themselves to compiete thom. Sucli activity has been put in practise jn other countries with ooncidereble success. In this way the student would recesve direct finamcial assistance together with much needed experienco eatned by being rn actual work sites, meeting and commundeative with poople from all sectors of the building industryo However, it must be stressed that the academic staff
 ensure desjreable standards.

Now that the date for "Ecformation Time" i"s getting nearer we hope that the Authorities wovld MONRSWII consult suggestions submitted by both student and staff representatites. We earnestly hope that when, at last, these zeforms arrive, they will all attempt to brighten the student's gloomy future and not be to his detriment.

4th January, 1978.


Way back in 1949 , the British Parliament passed a bill acknowledging in principle the responsibility of the State to provide the nation with a National Theatre. Two years later, in 1951, a foundation stone was laid by Rowialty close to the Festival Hall on the South Bank of the Thames.

Eighteen more years elapsed before the next 'stone' was laid! Work began on the site in 1959 and just over a year ago, on October 25th 1976, the new National Theatre was officially opened.

## The Architect

The architect of the project, Denys Lasdun, who was awarded the Royal Gold Medal for Architectura last year, was selected by a specially constitutea commttee, set up in the 60 s, under the chairmanship of Sir Latrense Olivier. He had never designed a thetre before (one critic said that perhaps this was the reason why his mbuilding is suoh a jolly good show" Architectural Record, Sep. 1977). From the start the building committee decided against holding a definitive competition, which they felt would deprivetivo of participating in the planing process. The problem of selecting an architecty was solvea with the help of RIBA who arranged a preliminary competition to select itwenty winncrs. The selected twenty, out of a total of some three hundred, were then called for an interview. Sir Laurence Olivier, spoaking about the interviews (Arch. Reviav 1/77), makes one realise the importanse of a good architect being somewhat of a good calesman too. He describes how some, like the late Sir Basil Sperce, never weat at all .. "I've got enough work for 500 years, so don't bother me"。 Others, like Philip Johnson from New York, showed up with all their "henchmen" and looked very impressive, (probably making the "olieat" uneasy).

DI showed up aione, Ho answored all the questions put to him, and played on the emotion of the panel "...... surely the most important aspect of what we are tykng about is the spirtual one".
(Architectural Reviem, January 1977)。
He got the job.

## Site

Lasdun's NT sits, long and low, on its site on the South Bank of the Thames where the river begins the turn into King's Reach and sweeps round towards the city. It is just a little downstream from Waterloo Bridge ard across the river from Somerset House. The site commands a pan ramic rista of London from the spiky, Gothic, Houses of Parliament to the majestic dome of St. Paul's. The immediate area around the National Theatre includes the Royal Festival Hall, the Queer Rlizabeth Hall, the Hayward Gallery and the Nationai Film Theatre.

## First Impressions

When 1 visited the National Zor the inrst time it was early on a rather overcast and dismal Sunday morning in September. From the North Bank, the building appoared like a number of horizontal decks, pinned togethem and held dow by bold mertical structures punchingt"rough tie topmost layer. The horizontal trays cast deep shadows at each level. even with the uniform lighting conditions of the gloony London weather. Denys Lasdun describes this impression pexectyy: "it is an architecture without facades but with layers of building, like geological strata, $\ldots . . .{ }^{\prime \prime}$. In the vicinity of the theatre very few people were around, on that Sunday nomning. The neighbourhood, which is not exciting on the best of days seemed even more depressing and the bare and unadorned whit sh-grey concrete of the building made it appear dark and somber, However, walking around the terraces and moving over the vailous levels around the building the magic of its architecture began to work on me.

The "horizontal layers of building" which are the dominant elements especially from across the river are smooth coffered concrete trays foming the floons of the building and their extersion into terraces. Theso are supported by bold, massive, board-marked, concrete colamns, located on a grid which is not easy to determine at finst. Inside, behind the glass I could see the carpeted foyens and the Corb. staircases joining the different levels, At first glance, theso three materials, carpeting, concrete and glass appeared to be the only ones used.

Above the main entrance, which is set on the diagonal rise the four square towoss of the lift shaits. while beyond them rise the blank walls of the flytower of the main theatre (the Olivier)


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and to its right that of the second theatre (the Lyttleton). These elements are dramatically flooditt at night.

The only disappointing external side of the theatre is its rear, a massive blank wall screening off the workshop area.

But what I had seen on that Sunday morning was enough to make me want" to know more about it, visit it again and investigate further.


#### Abstract

The Brief Originally the brief called for one supremely adaptable space which could be used for all kinds of theatrical performances. Although technologically this is not impossible, to cater for productions ranging from the Elizabethan to the post-experimental meant that several compromises would have to be made and that most of the funds necessarily have to go towards mechanical equipment. The brief was therefore modified and the National as built actually comprises three theatres: the Olivier, the Iyttleton and the Cottesloe.


## The Olivier

The Olivier is the largest of the three theatres and seats some 1,150. It may safely be said that the Olivier is the National Theatre. The basic plan is a quarter circle with an open stage at the corner. The seating is broken down into sections on different levels and each sectionisat angle from the other. The boundary between audience and actors is blurred. Some rows are practically on the same level as the performing areas; it would be absurd to talk of a stage. The plan has ensured that no seat is further than 23 metres from the performance. Inside the Olivier, the audience occupy the same space as the actors and feel at one with them and with each other; there is a rare sense of continuity between the stalls and the upper tiers. The atmosphere is one of intimacy and one willingly lingers on inside even when the performance is over.

The Olivier is to be the home of the National Company where it presentsits all-year repertoire.

## The Iyttleton

Sharing the same main entrance with the Olivier is the second main theatre, the Lyttleton. This is a more conventional rectangular proscenium theatre seating some 890 people in two tiers of stalls and circle. The stage at one end has an adjustable proscenium arch allowing a variety of openings depending on the type of production in progress. the theatre is intended to be used by the National Company for seasons of new plays, for the work of a particular playwright, for productions built round a chosen theme, as well as for visiting theatrical companiese.

The last theatre, the Cottesloe, is at a lower level than the other two and has a separate access on the 巴ast side of the building. It may seat audiences up to 400 people, and has been called the National Theatre's "laboratory for the future". The last theatre of the three to open (it was still not functicning on the official opening day) it consists of a simple box with all the walls painted black. Galleries ring the box on three sides while the fourth is left free to allow for various staging concepts. A variety of seating arrangements is possible and, if required, the floor may be raised to stage height.

In terms of equipment the Cottesloe is much more modest than the other two but this is expected to be increased as the possibilities of this theatre are discovered with use. The Cottesloe will accommodate productions by both visiting and regional companies.

The building is based on an overlay of two grids based on the axis of the two main theatres. The Olivier's is at $45^{\circ}$ to that of the Lyttleton, and accounts for the diagonally located main entrance. It also locates the lift shafts, the placing of the columns, and the coffering of the floor trays, giving the ceiling the familiar "diagrid" form with coffers at $45^{\circ}$ to the perimeter beams. The main staircases with their half-hexagon half-landings split open in the middle are determined by the superimposition of the two grids.

## The "Fourth Theatre"

Lasdun speaks of a fourth theatre in his project. He is referring to the foyers, the public spaces, the terraces and riverside walks around the National Theatre and "their interrelationship with the city, the river, the street life, the people".

The extensive foyer spaces, which are open both to patrons of the theatres and general public alike, are indeed one of the most fascinating experiences of the National and quite worth a visit for their own sake. For the theatre-goer the intervals are fun, no longer an irritating session of elbowing and jostling for a drop of the good stuff to see them through the next act. For the general public, who may have wandered in from the extensive riverside terraces at three different levels to browse round the bookshops or enjoy the fare at the restaurant, overlooking the river and the foyers, or one of the National's. eight bars, the intervals are a spectacle in themselves.

In the foyers the inside-outside feeling is supreme. The unconventional geometry of the building combined with generous glazirg gives rise to delightful vignettes of London across the Thames from several points in the foyers.

The bold massive columns rise from their foundations to pierce the building volumes, combining the several layers of space into one dynamic whole. This effect is heightened by the lighting of



Cotrevos
these columns, done mainly from below from special fittings inset into the ground at their base.. This uplighting emphasises their height and abrasive concrete texture and is perhaps one of the main contributors to the dramatic excitement which pervades the people-filled foyer spaces at night.

## Service Spaces

The rest of the building consists of the usual service spaces which such a building demands, administrative offices, rehercal and dressing rooms, green rooms, wardrobe and a veritable interior street of: workshops at the rear. Parking for 400 cars together with the required plant room necessary for environmental control are also generously provided.

## Conclusion

The real success of the theatres can only be judged in time; but the: full houses they have been generating agurs well for the future. For. his "fourth theatre" to be successful Lasdun has suggested that residential development be carried out in the neighbourhood of the National to put back life into the area. Architecturally the building is fines f. but the more people use it the better it would be. Architecture without people is meaningless.

There have been those (there always are, everywhere) who had protested that the National Theatie built at one of the worst moments in the U.K's economichistory, was too much "cake when we only need bread", and that the money could be spont better in other ways (remember Judas and the ointnent money?). But now that the National Is there: everybody: is glad to have jt. Here in Malta we would even be glad if a step:similar to that traken by the U.K. Government almost thirty years ago is taken regarding our national theatre!

In his meeting wh th MCAST students on Monday, $28 \pm h$ November, the Prime Ministen made continuous reference to the re-organisation of the Civil Engineering. Department. He wont further:by pointing out that the Goverment had put in considerable effort to bring over a suitable person from abroad to head this re-organisation. Very well and true up to the day of the PoMo ${ }^{i}$ s address the said person was indeed on the islead, having already put in a considerable work load in his scheme for the montioned re-organisation. However, it was indeed strange to all of us how a few days after, we came to know of his sudden departure. He did give his reasons for this, howeven we feel ve oannot somment on thesc since we are ignorant of what wert on behind the scenes.

These events leave us to pondse about the situation now existing in the Civil Enginoozine Departmont. With the coparture of Mr. Towler the headship has been antomatically vacated. January sees the start of a rew tenn and it is cum ardent hope that these recent happenings will not have a negative effect on us students. Internal mattersoos the Deparband have to be resolved by the start of the new. term otnemieo wowli bo in for a lean period indeed.

## In Babylon:

Second year studente aro not that all onthusjastic about the type of Mathematics contaired in thean syilabic for the finst term. In a recent conversation with tho piesent futor, it ras learnt that this syllabus, was romit of oonsultations betweon last year's, Civil Engineering Departnent (Mo. E. Abeia and Mo; J, Sałiba) and the Mathematics Dopartment of the Tniversity. With recent talk of re-organisation in the Cari Ereinocring Department (recall Mr. Towler's doparture) tit is hoped that ro tine will be spared to hold fresh talks with tho presont oong $\hat{H}$ tuonts or this Department to revise the syllabuse We ane cire that if sime talcs are held a number of changes world emence. Mathemotics bemeficial to the Architect and Civil Foginees, shonld be the only criterion for inclusion in oun syllakus.

## Apathy

Apathy is, a six-Ioitezed word.
And listen ye Gentlowen to wat Tiro Leend.
A story about, those nasty boyss
for whom plans and rodele are evenyday toyse
The story goes that for most 0 f thom,
OUT OF CURRICULUM -- they don't give a damn!
As long as the projoct is ing 并. time.
Any other activity will be a bec cwine:
APATHY is a Go,don rord.
(for those people who PEEMEND)
That this stor" thoy ham't hoard?
(BYON)
***STOP PRESS .... STOP PRESS
This part of the feature has been written before 11th January 1978. We are pleased to report that since then we have learnt that talks between the Mathematics Department and the present Civil Engineering Department at MCAST, to review the Mathematics sjllabus, are scheduled for later this month. A student representative has been invited to take part.


Dear Sir,
RESERVOIRS - WHAT BENEFIT???
As I am sure all readers are aware of, here in Malta we have an acute water shortage problem. To help in solving this problem Government has been building various resenvoirs to catch and store "water runoff, especially from our main roads. This, in itself, is a Very good idea but I think it is lacking in one: important aspect."

However, before arriving at the crux of the problem, I would like to say something about reservoirs. Basically these are of two types: (a) Those that collect water and store it; (b) Those that collect water and let it drain slowly into the aquafer or the water collected is transferred to other storage reservoirs by means of boweors; ioe, serve as catchment areas (strictly speaking these chould not be referred to as reservoirs, but for argo ment's sake" 士" will keep calling them so)...Usually these reservoirs have a large surface area and a relatively shallow depth.

The problem is that most of the water being collected is again being lost to the atmosphere through evaporation. They hydrologic definition of evaporation is, the net rate of vapour transport to the atmosphere. The rate of evaporation is fnfluenced not only by solar radiation and air temperature (as is usually assumed by the layman), but also by vapour pressure., wind speed and atmospheric pressure. Since solar radiation is one of the most important factors, evaporation varies with latitude, season, time of day and sky conditions. However, here in Malta, owing to our exposed position and owing to the high wind speeds which we get, wind is another very important factor promoting evaporation. Evaporation is also directly proportional to the surface area being considered - the bigger the surface area, the greater the volume of water being evaporated.

To stress the efiects of evaporation one need only say that once everybwelve days"all the water"in" the athosphere is replaced due to thiseffectomence bearing in mind the proportions of our reservoirs; our relatively high air temperature and solar radiation, even in winter, and our high wind speeds, one could easily deduce why evaporation is causing such a considerable loss of very precious water.

So, what could be done to overcome this problem? One might immediately suggest some kind of solid roofing for our reservoirs, becuase, since the reservoirs being referred to, collect the bulk of the water from runoff of nearby roads, the quantity of the water collected directly from the surface is relatively small and hence could be neglected. However, such a solution would tend to be quite expensive and it does lessen the catchment of the reservoir. Better solutions use the surface of the water itself to act as a ceiling for the reservoir. All of these consist of floating some material on the marface of the water, thus dis-. rupting the effects of evaporation. This material varies: from the primitive but very efficient way of floating bamboo cames on the surface to floating pieces of jablo and the more sophisticated methods of pouring a very thin layer of various oils all over the surface which tend to hinder evaporation.

By this: letter I hope to stress the seriousness of the problem and I hope that my appeals reach the ears of the Authorities concerned so that something could be done towards improving the efficiency of our resepvoirs.

## Ref:

Water - Life Science Library
Hydrology for Engineers - M. Kohler, R. Linsley \& J. Paulhus
Manual of British Water Engineering Practise - Institution of Water Engineers.

FALLING WATERS

Sur Fittur,
L-EDUKAZZJONI TERZJARJA IEUM
It-tbigh ta' I-ewwel numru ta' "Arkitettura w Ambjent" huwa pass kbir 'I qưddiem lejn il-ksib ta' l-identita'. taghna fil-kamp studentesk. Ghax s'issa, I-istudenti ta' l-arkitetturakienu meqjusa fost shabhom bhala nies mohhom biss fl-istudju, izda li ssibhom ukoll kull fejn ikun hemm l-istorbju.

F'okkazjoni ta' din ix-xorta tajjeb illi wiehed jirrifletti ftit: xi tfísser ghalina li nkunu studenti universitarji? Mitt bniedem, mitt fehma! Fost il-mijiet ta' fehmiet jispikkaw xi whud, fosthom: l-istudent universitarju huwa membru ta' klassi elitista, likif jirfes I-ewwel darba fil-maqdes ta Tal-Qroaq donnu miss is-sema b'idu w jara '1 kulhadd dubbien.

Huwa minnu li fil-passat, meva kienet tithallas il-mizata, il-parti l-kbira ta: l-istudenti kienu gejjin minn familji fil'high imome bracket". Dawn, jew ahjar il-parti I-kbira ta' dawn, kienu jqiesu bhala nferjurj 'l dawk gejjin minn ambjent differenti.

Tul dawn l-ahhar ghoxrin sena, inqatghet il-parti l-kbira ta' din is-superiority complex: ghax issa l-parti l-kbira tal-istudenti universitarji gejjin minn familji mhux professjonisti (bi professjonista, ghall-iskop ta' din l-ittra nifhem tabib, avukat, perit). Fatturi ohra mporitanti huma li I-universita' m'ghadiax tipproduci biss proíessjonisti u li m'ghadiex tithallas il-mizata。

Hemm bzonn, sur editur: li l-istudenti KOLLHA jkunu konxji li I-popolazzjoni ta' pajjiz mhix maghmulha biss minn STUDENTI. Jekk l-universita' tipproduci biss nies li jafu s-suggett li jkunu studjaw fuq ponot subghajhom, u fl-istess hin dawn ma jkollhomx valuri civici, jekk dan jibqa j jehh, l-EDUKAZZJONI TERZJARJA FAIIIET.

Nixtieq permezz ta' din l-ittia, nappella lill-Board Editorjali, biex jibda hu din il-kampanja fost l-istudenti ta' l-Arkitettura. Ghandna hafna fostna li mohhom biss fil-kors. Hemm bzonn $1 i$ nqanqlu kuxjenza fostna li l-ISTUDENT MHUX QIEGHED BISS BIEX JISTUDJA, IZDA GHANDU D-DMIR LI JIPPARTECIPA BIB-SHIH F'ATIIVITAJIET BARRA L-KURRIKULU, U II DAWN L:ATTIVITAJIET IKUNU KKUNSIDRATI FILMARKI LI JINGHATA FL-AHHAR TAS-SENA.
C. CACOPARDO

10 ta' Novembru; 1977.

Sur Editur,


Kif kulhadd jaf din is-sena akkademika li ninsabu fiha kellna hafna general meetings tal-K.R.S. u li, minhabba fihom, kwazi dejjem inhassru:I-lectures halii KULHADD ikun jista' jattendi. Pero', fost l-istudenti tat,-.tieni sena, qieghed jigri li dawk illi l-aktar ikunu entuzjasti sabiex inhassru l-lectures, hekk kif isiru jafu illi dawn ilmectures gew imhassra, iparpru lejn id-dar bhal sajjetta u ma tamahomx igjedn

Allura, nghid jien, dawn "ix-xempji ta' rgulija" li ghandna filkors ma jimpurtahom minn hadd u minn xejn, lanqas mill-futur talkors taghhom stess?" Dawn "I--irgiel" fejn ikunu? Forsi jkunu qed jahdmu xi progett b'hafna xinxilli jew jieklu l-kotba waqt li xi msejknin ohrajkunu qed "jahlu hinhom" f"affarijiet ta' interess sew ghall-kors kii ukoll ghall-universita" kollha li dawn "I-irgiel" huma parti minnha.

U, :mbaghad, dawn uiningeI' igergru ghax m'ghandhomx hin jew ghadhom uralt Ahseb u-ara dawk I-imsejknino Dawn zgur li mhumiex testile
$\qquad$

C. ELLUL
$\ldots 1$


TN Fnpran ${ }^{2}$
Valletta: Its Military Architecture and Preliminary Gi.ty Plan
(Carmel Cacopardo)
This is a very well researched; lengthy paper which will be published in six parts, starting in: the March/April issue: In it the author traces the develoment of Valletta from the very early sixteenth century when it was still known as "Shebbir-Ras" and the only building on it. was a small crumbling.fort called "Torre della: Bocca"; : aparelli's original design for this unique towa; the building regulations as enforced by the Officium Commissandoum Domorum, right down to the concep-: tion of Floriana as its suburb in the former part of the eighteenth century. The text is very easy to flow and all references are very well documented. We hope that the publication of this paper encourages other readers to take up seri s research with results of such a high standard.

## A Value-Based Approach to Architecturel Decision Taking (Saviour 3org)

This is a very interesting article $\because \because I I$ be published in the May/June issue, about the process of CONGCIENTIZATION and, howit could be applied to reach decisions on various projects. The author begins by defining "value" and then continues by explaining the four phases in human development. Then he goes on to outline a case stady of a one-day session with the fourth year students of the Architecture Department carried out by Fr. Tonna. In this session, $3 y$ a process known as BRAINSTORMING; the priorities for a competitive design project were obtained. $:$ Although the topic is a highly complicated.one, the author manages to explain it quite clearly in not so many words.

We would like to remind our readers that contributions are always welcome although we reserve the right of publishing any material submitted.


LE CORBUSIER WOULD HAVE DIED A FRUSTRATED ARCHITECT IF NO EXPOSED CONCRETE WAS ALLOWED ON THE FACADES:
a) His "Unité d'Habitation" is totally treated, externally in exposed concrete.
b) So, too, his magnificent church of Notre-Dame-de-Heut at Ronchamp whose roof is superbly shaped in naked concrete.
c) Also the High Court at Chandigarh, India, which has an enormous concrete canopy running the whole length of the facade.
.............. good for him, and his magnificent buildings, that France and India do not prohibit the use of exposed concrete on the facades.

Selection from Foreign Periodicals
Cne of the most interesting periodicals I cameacross is, "Middle East Construction!', (M.E.C. Nov. 1977). This periodical is missing from the list supplied in the last issue and it can be found at the new university (MCAST). As its name suggests, this pericdical deals exclusively with construction work in the middle east, discussing the problems, both managerial and technical, involved, and outlining solutions to such problems.

Hence, in this issue is found the article, "The Multi Discipline Approach", which outlines how a Swedish construction company involves itself in all sorts of construction problems. The Vattenbyggnadsbyran (V:B.B.) basically comprises four departments - water supply and sewage treatment, power, town planning and industrial planning. As one notices there is no architectural department but architects are found in each of the other departments and are responsible for the design of buildings and other construction works. The main events in the firm's history are:

| 1897 | Professor Ju Gust Richert established the, "Konstruktionskyra for Vattenkyggnadsbyran" (hydraulic engineering design office). |
| :---: | :---: |
| 1.903 | First work abroad-V.B.B. presented the prize winning proposals in a competition for a new sewerage system at St. Petersburg. |
| 1926 | Planned the new water supply system for the city of Rangoon, Burma. |
| $1953-1960$ | First work in Middle East - hydro-electric power plant sited at Aswan Dam. |
| 1962 | Won contract to plan and implement a new water supply system for the city of Riyadh, Saudi Arabia. |

1963-1970 Moved Abu Simbel Temples to save them from flooding beneath the waters of lake Nasser.
V.3.B. is also responsible for water supply and related sewage disposal and treatment plants for Amman, Jordan, Marhbad, Iran, Jeddah, Saudi
Arabia and the city of Kuwait. Its most important town pianning project is the master plan proposals for the new Egyptian city, Tenth of Ramadam, near Cairo; other such projects were also carried out in Kuwait, Saudi Arabia and Jordan.

The most recent completed project of the V.B.B. (earlier this year), is the Kuwait Tower group aomplex. It consists of three separate towers, the tallest one being 176 m above ground level. and provides an elevated reservoir of $4,500 \mathrm{~m}^{3}$ capacity, a restaurant and banqueting hall for 200 people, an indoor garden where receptions for 400 people can be held (these are all found in the larger, lower sphere - for drawings see M.E.C. ), and a viewing gallery in a separate mpper sphere. The second tower is for water storage only and the third tower contains floodlighting equipment. This complex is a landmark in the Gulf and represents one of the most striking instances tod date of advanced technology applied to the design of a multipurpose stmucture which is unmistakably twentieth century, yet respects traditional local, axchitectural values.

Another periodical to be found at, the new unitersity is "Concrete" (Nove 1977): In thisissue is found the troncrete Society Jubilee Award", von by the transformed civic centre in Bolton-Victoria square pedestrianisationo. In this scheme, "the use of concrete as a surfacing material reflects the dignity of the civic architecture in the square and creates a suitably urban landscape for the heart of the town". Simple concrete paving using a subdued colour scheme, shows the classical town hall to advantage as the focal point of the town. The colour of the paving closely matches the sandstone of which the town hall is built.

The central area of the square in front of the town hall steps, is free from all ornaments, "so that it may be used for major functions and as a. forum for the town's activities". Fountains delinate this area as does the war memorial and a course of setts links together twenty four seating units, each of which contains a plane tree and shrubs. Bollards with black exposed aggregate in a black concrete matrix have been used to protect the war memorial and to define the boundary of the pedestrian precinct with Oxford Street. This street is shopping thoroughfarew which possesses some formelity due to a similarity in character between the major stores and the bank in the street and the civic buildings in Victoria Square. For this reason Oxford Street has been surfaced: in the samo manner as the square. The whole area is accessible to iraffic in emergency, but it is designed primarily to be convenient and pleasant for the shoppers, residents and visitors on foot.

Concrete was used in the following forms: standard precast paving slabs on a lean mix base to take occasional vehicular traffic, safety curb channels, flint cobbles set in concrete, in situ exposed concrete around manhole covers and other irregularities and precast exposed aggregate copings.

This project rejuvinates an aging but splendid Victorian town centre; it is impressive in size and style; it draws together the old and new buildings, and the social amenity of the areas paved throughout with precast concrete is greatly increased. The civic centre throbs with Iife and the people of Bolton can take special pride in it.

[^0]Shinjuku is an example of an indegenous place that reflects the full breadth and complexity of a post-industrial society. Shinjuku is a college, the cumulative result of many independent systems. It is a warehouse of signs - signs of nature, signs of commerce, displays, directions and titillations. Food displays overreach themselves; the entire menu is revealed in exact replica in front of restaurants in plastic models without a single noodle out of place - but the models outdo reality and are an end in themselves.

This megastructure includes four mamoth department stores and three thousand small retail shops, restaurants, bars and other entertainment facilities. Besides there are 150 additional retail establishments such as movies, pin-ball palaces and Mahjongg parlours. The plan is generated by two dependent systems - the apparently self'regulating commercial market and the apparently fulfilled needs and the desires of people who use it everyday. The users are the designers.

Other interesting articles in this issue include: uriumph on the Thames". - the national theatre in London designed by Denys Lasdun and Partners; "Johns-Manville World Headquarters" - the architects" collaborative (TAC) competitive design has been reproduced with remarkable faithfulness in a magnificent desert site near Denver, resulting in a building of extraordinary strength and beauty; "The Linear Airport comes to maturity at Boston's Logan International" joint venture architects, John Carl Warnecke \& Associates and Desmond \& Lord Inc. have recently completed Logan's new South Terminal which represents:the fully developed, drive-to-the-gate airport.

In the last issue ("A" Nov/Dec 77) an account was given of Dune House, a double beach house built underneath the sand of a Florida beach. This time, it is the turn of an Underground Farm in Eembroke, Georgia, U.S.A. (Domus Nov 77). In this project the architects' task was to combine the fact of living close to the land with the fact of living off the land into an architectural reality. The place of work and place of living are one. This farm is designed for eight families to be a self supporting communty, with facilities for six more families to join later on.

The housing has been designed in such a way that no land is subtracted from the total arable surface. Furthermore, the farm design utilises to the best advantage the insulating properties of the earth, thus diminshing the energy needed to heat and cool the dwellings. Obviously great emphasis had to be made on making the whole thing watertight. For this purpose the walls are lined with fibreglass panels glued at the seams while frost-resistant tiles are used. The structure consists of iron columns placed on a grid supporting a concrete barrel-vault-roofing system. All the energy required for the settlement
is supplied by a communal heliovoltaic system. The south facing collector panels are placed on an earth mound, built up when excavating the site. The harvested grain is sored in silos whose windows are so designed to obtain maximum benefit from the wind in drying the grain.

Other interesting features in this issue include, "In Cortile a Gray" - a complex consisting of refrectory, conference hall and theatre nestling under a freely modelled shell built in the large courtyard of a school; "Gigantesca Immagine" - a complex in Riyadh, Saudi Arabia, comprising commercial and public spaces, offices plus all the related recreation facilities; "Per Studenti in Finlandia" - a student village in Turku, consisting of four thousand housing units plus sertices which include saunas, day-care centres, shops, laundries, hobby clubs and bomb shelters; "Per l'Infanzia a Londra" - a children's hall in the Alexandria Roadredevelopment schene which can accommodate 37. children plus facilities for three senior staff, six house parents, three students and two domestic staff.

In the Architects Journal of this month (Nov 1977) are found two gwards. The first is the Financial Times Industrial Award 1977, which has been won by the Herman Miller furniture factory at Bath, designed by the Farnell/Grimshaw partnership. This factory was praised by its assessors as a PFine example of the relationship of brilliant, architectural skill, industrial engineering ability and management imagination. It is well sited, beautifully and precisely detailed and with well thought out and sensitive tredment of the surrounding areas ............ internal planing is directed towards possible future needs and is entirely flexible." Other commended schemes are the Cottonvalley Sewage Treatment Works; Milton Keynes; the Truman brewery; London and the New Boiler House for the Oldam and District General" Hospital.

The other award is the D.O.E. Award for good design in Housing. For this competition England was divided into nine regions, i.e., the eastern region, greater London, northern region, the northwestern region, the south-eastern region, the south-western region, Yorkshire, Humberside and an award for housing for the disabled. There were 395 entries and fifteen were warded a gold medal: Amongst the winners the notable ones were: Whitemore Court at Basildon, Essex designed by Ahrend, Burton and Koralek, praised for its sensitivity, superb detail and original form; John King Court at Archway, North London; the Greater London Council; Lydford Estate and the 44 dwelling units complexat Oxford designed by Philip del Nevo of Oxford Architects Partnership which includes a restaurant, lounge and roof deck.


## City Gate-a focal point in "dissonant"

 style- is undoubtedly on eyerave. It tries to achieve on unwarranted monument duty in a style markedly different from that prevalent in Valletta. A theatrical style recalling a stage setting. Is form is further ridiculed by ils decoration

## NO. 2 ST. SEBASTITAN PAPISH CHURCH - QORMI

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When we cane to start compiling this series for 'A - Arkitettura .i.... w Ambjent' we drew up a list of possible buildings now under construction that may be considered. A number of churches, as at would be efpected fitom a country like 'Catholic' Malta, cropped up. The impressive' Iist included the interesting structure for the Fgura Parish Church the Santa Teresa Sanctuary in B'Kara, the tal-Erwieh Church Ta Tarxien and the San Sebastian Parish Church in Qormion the latter indeed has such an incredible background that we decided to give it priority among these ecclesiastical buildings.

According to the history books, after having been declared a parish the San Sebastida sector of Qormi was in great need of a larger church to meet the needs of an evergrowing communty. Indeed work on the new parish church was launched on February of 1940 and the edifice momans uncmpleted to this very day... Difficulties financial or otherwise, cromped up at irregular intervals. Constructional and othetual difficulties were not lacking and these will be dealt mith in later stages of this feature.

Once ono roanz around what now stands and looks at what the eventual final product $\therefore$ expected to look like - a feeling of a Romanesque church is dereloped. To further enhance its Romanesque qualities one may also mention the great pragmatism (a marked feature of the Romanesque (ex) adopted throughout the course of the church's erection in ticeast thtrty-eight years. A pragmatism that comes out in "bold fre the decision to dismantle a continuous balcony all around the chemen internal perimeter. In the original design this balcony was to be a prominent leature of the church's interior. In later yeare
thes 三दea was to be scrapped. This led to a laborious process of pulling down inis great concrete structure and the number. of stone pillears on which it was supported. To be.fair, this balcony did serve to facilitate the setting up of formwork on which a grea's number of masony bobs were carried out, but one cannct help wonder at what an expensel

The balcony provided further difficulties on how to cover the now naked permeter hollowed up due to the concrete dismantling. A neat solution was provided in a masonry frieze that now separates the two different, styles (on lower levels, half and quarter column, above balcony region it changes intc square ribs). When this balcony is: completely removed the interior will gain a new dimension, one of greater space and circulation.

Of considerable interest is the erection of the huge dome that will top the whole edifice. It has been reported that the tender for the dome has been won by a leading local constructional firm for an
incredible $\ddagger M 60,000$. Add this to the $£ 110,600$ spent on one ring beam already completed and you are bound to get quite an expensive topping for this church!

The story behind the ring beam itself is worth recalling. In original plans the ring beam was of a circular shape. However, when a change in the Architectural consultants had to be carried out the idea was to change. ... Mainly for improved structural reasors, and also for greater ease of setting up formwork an octagonal shape was suggested. Indeed on plan the ring beam consists of eight sides each 32 feet in length with a height of 32 inches. Nine hundred bags of cement went into its manufacture plus of course considerable amount of seel reinforcement. It was completed in eight days and the procedure was to cast from the centre of a side to the centre of an adjacent one for each day. Over it, work on the actual dome, expected to be of 75 feet internal dianeter: will soon start. It was originally planned to have two rows of windows on top of each other, with another ring beam separating these nows. However this was sceapped (further pragmatisn) and the present design features a single row of 48 high vindove all around the dome's oiroumference. These windows will be the infill panels fow the ribs that will form the basic structure of the dome.

In more recent years one of the major problems evolved was the question of how safe it was to enect such a lavge dome on the existing supporting base. Io put you th the picture one must recall that below the Jevel of the chom exists a crypt which presently serves as a tomporary alternatve to tho parish church. Recently the anohtpctural conoutants expressed their concern on the possibility of under reinforcement. For this reason the problem was given considerable thought and concretc work being carried out presentily, is as a result of these findings. In brief additional reinforced concrete is being introduced in those corners which the consultants declared as "weale" points. This reinforcing process nainly consists of infilling the passages under the four main footings of the dome in the crypt with reinforced concrete. This, apart from the fact that in recent years six foot wide passages in the crypt were reduced to three feet and some were even completely infilled with concrete. These and other interesting cases indicate alarming structural shortcomings in the very originai designo

Other structural problems were faced some years ago during the roof construction of the crypt. The matter was of a much more serious nature and this led to an official inquiry plus, of course, the cosing up of the chmeh titself. The roofing system adopted for the crypt is quite a feature and this is more so when one considers that it is nearly thinty years of age. A ring beam connected to giant cantilevered beams plus pillars form an aesthetically pleasing design.




What we have presented in our feature remains a brief outline behind the lengthy history of the San Sebastian church of Qormi. A 'history' that we honestly feel can be applied as a yardstick in future ecclesiastical architecture in Malta, (and we are bound to have more of it .......... now that they are winning the BIG prizes!). Here we have a case where pragmatism has been adopted to produce a desireable solution. Where failure and human errors were revealed, a solution was ferreted out and in the majority of cases proved successful. This, in itself, together with all the ups and downs of its thirtyeight years existence must surely fill the people of Qormi (San Sebastian ........ of course!) with great hope and pride in seeing this edifice completed. A site visit would be worth the trip ......... there is much more to it than what we have said ....... to this we give a personal guarantee!

Footnote: Our thanks to the Rev. S. Deguara (Archpriest of San Sebastian, Qormi); Mr. C. Falzon (our guide during our visits) and Fr. K. Mercieca for their help in compiling this feature.

NEXT ISSUE: NEW TOURIST COMPLEX AT GHADIRA

## Editor's Note

We are pleased to announce that from the next issue we will be having space available for classified advertisements. If, say, there is some book you want to sell or maybe one you need desperately, some drawing equipment you want to replace or perhaps exchange ........ anything will be considered. Space will be available free for students and staff members of our Department. Rates for 'outsiders' may be obtained on request. If interested, contact any member of the Editorial Board.



[^0]:    "Everydaymore than two million people pass in and out of Tokyo's Shinjuku district, the world's"largest and most real megastructure", writes architect Peter Gluck in the Architectural Record (Sept.1977).

