GERRIT VLUG AND ASSOCIATES

CONSTRUCTION CLAIM CONSULTANTS AND ARBITRATORS

THE NEW FIDIC

NEWSLETTER 24

Educational information for the Construction Industry in Botswana - January 2004

In many earlier newsletters, I have explained the importance of a proper contract. Still clients (old and new) are approaching us about issues, which are usually of a contractual nature.

A BAD EXAMPLE

Many problems will occur when the agreement is taken too lightly and when a situation arises which is not covered in the contract. A simple example is the client who contracts a builder for the construction of a house for P 500 000 on a plot in Phakalane.

The agreement, made in a single letter, but signed by both parties, stipulated the building price, the plot number and the drawing numbers. At the end of the first month, the contractor requested a progress payment in order to pay his labour and his creditors.

The client, who had put his money on fixed deposit, informed the contractor that he would only pay him when the house is finished. Is this an unreal situation? No, it has happened. There was no arbitration agreement in this one-page contract and the contractor had two choices: either to finish the house and be paid, or to take the matter to Court. As the "contract" did nc provide for any interim payment his attorneys advised him that h should finish the house! Cou action would have taken si years and the judge woul probably have found that th owner was within his rights to pa for the finished project only.

I can quote hundreds of examp es, which have happened be cause of an insufficient agreem ent. Despite my warnings, peopl still do not take this matte seriously and enter into verb agreements, or an agreemer consisting of a one-page lette Afterwards they want us to ge them out of trouble, which i most cases does not work.

WHAT IS A CONTRACT?

A contract is a written confirm ation of a verbal agreement and not everything has been recorde on paper, either party can d what he likes, as it is usual assumed that nothing else ha been agreed upon save for wha has been written. Where in m first example the contractor wa the suffering party, in th following example it was th employer.

ANOTHER BAD EXAMPLE

In an agreement, which provided for interim payments and even an advance payment, the contractor disappeared after having been given the advance. From time to time, he worked on the house, which was not even finished after two years. There was no determination clause in the a-greement. The employer then cancelled the contract by writing a letter to the contractor, accepting the contractor's repudiation (a situation where one party proves by his actions or non-actions no longer to be bound by the contract). The contractor did not accept the employer's reasons for cancell-ation and his attorney summons-ed the employer for loss of profit and the like. If there had been a termination clause in a proper contract, this all would not have been necessary. The contractor would have been given notice to perform. Failure to do so would have resulted in termination.

READ BEFORE YOU SIGN....!

There are many good contract documents available in Botswana They vary from a four-page document (the BIDP agreement for small projects) to a document in excess of 100 pages (the FIDIC agreements), in which most possible situations have been covered. A good contract should prevent the parties to have a different interpretation of the clauses.

> Each contract creates a right and an obligation. Where one party has the right to demand that the other party constructs a project, the other party has the obligation to do so. On the other hand, where the party constructing the project has the right to demand payment for the work done, the other party has the obligation to pay.

THE FIDIC CONTRACTS

The FIDIC contract or the contract of the Fédération Inter-nationale des Ingenieurs Con-seils has been in existence for more years than I remember. It was developed in Europe and found its way to Africa where it was extensively used for civil projects. The last version is the 1987 edition with revisions of 1992. The Civil contract normally consists of two parts: part I, which includes the clauses of general nature, applicable to all projects, and part II the Conditions of Particular Application, which has been drafted to suit a specific project. Both Part I and Part II comprise all the conditions governing the rights and obligations of the parties.

Recently four new contracts appeared in the FIDIC range:

1. 1. The contract for buildin construction, which recomm-ended for buildin and engineer-ing work designed by the employer c by his represent-ative, th engineer. A test edition wa issued in 1998 and we hav been informed that it is no being used on some buildin projects in Botswana. I particular on the ne hospitals.

2. The conditions of contract fc plant and design-buil recom-mended for th provision of electrical and/c mechanical plant and for th design and execution c building or engineering works

3. The conditions of contract fo EPC Turnkey Project (Engineering, Procuremen and Construction), which ar recommended where on entity takes tota responsibility for the desig and execution of a buildin project.

4. The Short Form of Contrac which is comparable to the BID contract for small projects.

With exception of the short-for contract all the contract

comprise of Parts I and II, similar to the civil contract.

Amazingly, there is no sub-contract document for the FIDIC building contract, as there is for civil works. Recently I had to scrutinise a subcontract agreement drafted by Stocks and Stocks, based on the FIDIC building contract. Although not "official", the clauses were linked to the main contract and we could not find major discrepancies, save that the lead times and notice periods were even longer.

Although FIDIC is a well-known name in the construction industry I have scrutinised the new contracts and found that they are not suitable for the work in Botswana. They are too good! I will substantiate this allegation at the end hereof.

This newsletter has a limited capacity and I will therefore only discuss the new building contract. Figures between brackets refer to contract clauses therein.

ENGINEER/ARCHITECT

The major difference with other building contracts is that the engineer has replaced the architect as main agent in the project. Rather unusual as in many countries, including Botswana. The architect is the main agent of the employer and is in some instances even responsible for the engineer's work.

This change, however, could easily be resolved by an amendment in Part II where the name of the architect could be mentioned and in which could be stipulated that the word "engineer" should be replaced by "architect" throughout the agreement.

MY OBJECTIONS.

My objection to this contract is three-fold:

1. Too many notices must be given. In addition, what is worse, when some notices are not given within the stipulated period the contractor loses his entitlement to claim.

2. The contract is not completely balanced, i.e. it does not give both parties the same duties and rights (the employer can cancel the contract at will, the contractor cannot).

3. Lead times in which some activity has to happen, are too long.

LONG LEAD TIMES

In terms of clause 2.4 the employer must submit proof to the contractor (within 42 days after his written request) that he has enough money to pay him. Suppose that the contractor has been building for a month, is not paid his first certificate after another month, requests proof of financial arrangements and hears after six weeks that the employer has no money or cannot get a loan. A period of 3.5 months has lapsed!

Clause 15.5 makes matters even more suspect! It allows the employer to cancel the contract **without having to give reasons to the contractor.** At such cancellation, the contractor must stop working and hand back all the documents, which he has received (16.3) and will be paid in accordance with clause 19.6.

This means that the employer will be faced with a claim for 3.5 months work (or longer), for materials ordered by the contractor, delivered or undelivered, the cost of repatriation of the contractor's staff (19.6d) but no loss of profit as clause 19.6c reads *"...he will be paid any cost or liability which in the circumstances was reasonably incurred by the contractor in the expectation of completing the works...."* The word "incurred" refers to expenditure, which the contractor has made and not for any monies, which he expected to get.

To make matters worse, in Botswana a builder's lien does not exist. It is an unlawful act to delay handing over of the unpaid building until the contractor has been paid. (See the Tacit Hypothecations Act).

Many other contract clauses refer to long lead times. The contractor can only determine the contract (16.2b) 56 days (2 months) after the failure of the engineer to issue a certificate. I have experience with engineers who failed to issue payment certificates within 3 months after having received the contractual statements simply because the matter was too complicated!

When the building is finished, the engineer must within 28 days after the contractor's notice issue a taking over certificate. There is no reason whatsoever for such a long period!

UNBALANCED

One unusual clause, which one does not find in any other contract, is clause 15.5, which entitles the employer to terminate the agreement at will, provided that he does not finish it himself or that he does not give it to another contractor.

Notwithstanding the fact that the contractor also should have the right to terminate the contract to balance both parties' rights, it is a very dangerous clause, which is open for malpractice.

Assume a hypothetical example where a contractor signs a contract of P 10m with a developer. After signing, the client meets another contractor, who informs him that he can build the same building for P 8.5m. Now the developer cancels the contract and tells the contractor that he could not get any finance. Both parties go their own way and "suddenly" the client finds other finance and employs the cheaper contractor.

THE SHREWD CLIENT

A shrewd employer could get his building for nothing, employing various contractors in succession! In addition, any contractor who would take this matter to the dispute adjudication board might find that although the decision might be in his favour, the client might ignore the decision and the matter should then proceed to arbitration. With clever attorneys and the reference of the award to Court, this matter might take years!

DISPUTE RESOLUTION

Despite my many objections, the new FIDIC agreement also has good points. One of them is th provision for a dispute adjudica ion board. (DAB).

Most of the time disputes aris because of the engineer and th contractor having differer perceptions of the situation. I the past, it was the engineer wh had to make a decision about problem, which he might hav caused himself.

Now, when a dispute arises ther is a third party who decides wh is wrong and who is right. It is n longer the engineer, but a independent adjudicator, or board consisting of three peopl in bigger projects.

NOTICES

There are certain notices tha must be given, as e.g.

1. Delayed drawings instructions (1.9).
2. Further notice about extr costs incurred (1.9).
3. Delay for access to site (2.1 and further notice about extr costs incurred (2.1.)
4. The request for approval subcontractors (4.4b).
5. The commencement dates each subcontractor (4.4c).
6. Delay in setting out, as we as extra cost incurred (4.7).
7. Unforeseeable physical cor ditions (4.12)

8. Delivery of major goods (4.16).
9. Progress reports (six copies) every month (4.21). The clause specifies a multitude of items, which should be included in these reports.
10. Fossils (4.24)
11. Further notices about the time delays and the expect-ed costs (4.24).
12. The work is ready for inspection (7.3).
13. Testing (7.4)
14. Probable future events affecting the program (8.3). The old principle that "the program is the contractor's property" is completely over-thrown by this clause.
15. Delays as stated (8.4). The delays do not include the failure by the engineer to issue a certificate or the delay in payment by the employer.
16. Consequences of suspens-ion (8.9).
17. Application for taking over (10.1).
18. Payment records to be verified (12.1).
19. Costs of omitted work (12.4).
20. Right to vary the work (13.1).
21. Delay caused by changes in legislation (13.7).
22. Suspend work (16.1).
23. Termination by contractor (16.2).
24. Loss and damage caused by risk (17.4)
25. Right of infringement (17.5).
26. Force Majeure (19.2).
27. Extension of time. Notice must be given within 21 days otherwise the right to claim falls away (20.1).
28. Dissatisfaction (20.4).

The engineer must also give important notices, as e.g.

1. When the employer considers himself to be entitled to any extension of the defects notification period (2.5 and 11.3). A dangerous clause, open for many disputes.
2. Deduction of counter claims (2.5).
3. Determination of disputes (3.5)
4. Engineer's attendance to tests (7.4).
5. To commence the work (8.1).
6. Measurement of work done (12.1).

In some instances, failure to issue the notice means losing entitlement to give notice. This is dangerous for those who do not know what they are doing! All notices should refer to the clause under which the notice is given.

As mentioned above I do not think that the new contracts are suitable for the average contractor in Botswana. They may be for the bigger contractors in the E category but not for those in categories A – D. By asking them to sign a FIDIC contract we are asking for trouble They will not understand it will not be able to adhere to their contractual obligations and finally the problems will result in arbitration.

Because of all the above it is logical that there should be a administrative manager on each building site to cope with the multitude of notices and instructions.

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My friend Billy Lee, who distributes all FIDIC publications for ACEB in Botswana does not think so. He feels that contractors should learn the hard way about their obligations and should be taught to do so. Time will tell us whether he is right!

Contractors, employers and engineers, who are using one of the new FIDIC agreements

should study them intensively. In other words, prevent problems before they occur!

Regards,

Gerrit Vlug

a) the Contractor, in which case the Contractor shall be entitled to an amount equal to the value thereof determined in accordance with Clause 52,
b) a nominated Subcontractor, as hereinafter defined, in which case the sum to be paid to the Contractor therefore shall be determined and paid in accordance with subclause 59.4.

58.2A

If the Contractor suffers delay and/or incurs costs by reason of the issue of an instruction pursuant to subclause 58.2 in circumstances where the work, goods, materials, plant or services, and/or the timing of the said instruction for the execution or supply thereof (as the case may be) were, in the reasonable opinion of the Engineer, not foreseeable by an experienced contract, the Engineer shall after due consultation with the Employer and the Contractor determine:

(a) any extension of time to which the Contractor is entitled under Clause 44, and
(b) the amount of such costs, which shall be added to the Contract Price, and shall notify the Contractor accordingly, with a copy to the Employer.

Selection Process: SIACC - Possible Solutions

23 Extension of Time

Grounds

The Contract Period and the Date for Completion may be extended and re-calculated, subject to compliance by the Contractor with the requirements of the next following subclause, by such further periods of time and until such further dates as may reasonably reflect any delay in completion which, notwithstanding due diligence and the taking of all reasonable steps by the Contractor to avoid or reduce the same, has been caused by:...

(h) Architect's Instructions under clause 28 of the Conditions in regard to Contingency Sums *(including, without limitation, in circumstances where the works, materials, goods and/or the timing of the instruction under Clause 28 of the Conditions for the carrying out or supply thereof (as the case may be) were, in the reasonable opinion of the Architect, not foreseeable by an experienced contractor).*

Defects in Works and Materials: Red Book 4th

MC is responsible for the acts, defaults and neglects of any Subcontractor as fully as if they were the acts, defaults or neglects of MC. One possible exception is with regard to the design of any materials supplied by NSC. However, this is unclear.

The subcontract must, however, specify that when NSC is providing design or specification of any part of the Permanent Works or of any Plant to be incorporated therein, he will save harmless and indemnify MC in connection with any failure to perform such obligations or to fulfill such liabilities.

Defects in Works and Materials: SIACC

MC again is fully responsible for all NSCs and for any default by them in the same way as for his own work or that of other subcontractors selected or engaged by MC. On the other hand, the Employer never will be liable to MC for the default of any DSC or NSC.

As if the risk allocation was not clear enough, MC also is deemed to have accepted, as his own responsibilities under the main contract, all the obligations undertaken by NSC in his subcontract, including, as to the design, suitability, quality or performance of his work, materials or goods, or in regard to the provision of design services.

When the Employer actually and reasonably relies upon the skill and judgment of DSC/NSC for the design or suitability of his work or materials, the Employer is regarded as having relied upon the skill and judgment of MC.

Defects in Works and Materials: Possible Solutions

If MC cannot secure suitable amendment of these provisions, then the problems MC will encounter are:

- With the possible exception of the fitness and/or quality of materials used by NSC under the Red Book, NSC still is a subcontractor of MC for whom MC is responsible

to the Employer.

- Whilst under the Red Book 4th there may be the protection of NSC's indemnity with regard to design and specification of Permanent Works, in practice any prudent MC still will need to regard the presence of a design element in a nominated

The solution most likely to gain acceptance does not involve amendments to main contract conditions. Instead, in line with the principles of objection under both Red Book 4th and SIACC, the solution lies in subcontract drafting and reasonable objection.

In this regard, the common use of the ICE form of subcontract without amendment is at least hazardous. Contractors should be looking for their subcontracts with NSCs to include provisions for:

- Equivalent responsibilities or obligations consistent with those undertaken by MC.
- Indemnities against liabilities, claims and damages arising from defaults of NSC in the same terms as MC's indemnity to the Employer.
- Personal injury insurance capped no lower than the potential liability of MC arising from design fault.
- Bonds in stipulated form

Modifications could include:

.1 On or before the date of this Subcontract, the Contractor has made available for inspection by the Subcontractor copies of the Main Contract (excluding commercially sensitive information). The Subcontractor is deemed to have studied the Main Contract and to be fully aware of the obligations and potential liabilities of the Contractor thereunder. Without derogating from the generality of the foregoing, the Subcontractor is deemed to be fully aware of the adverse financial and other consequences for the Contractor which could arise under the Main Contract in consequence, in whole or in part, of a breach on the part of the Subcontractor of its obligations under this Subcontract (and, in particular, but without limitation, as a consequence of the Subcontract Works failing to be completed in accordance with the requirements of the Main Contract).

.2 The Subcontract shall assume and properly perform, as part of his obligations under this Subcontract, the Contractor's obligations under the Main Contract in connection with the carrying out and completion of the Subcontract Works and so as to enable the Contractor to fully discharge its obligations under the Main Contract insofar as they relate to the Subcontract Works and so as not to cause to contribute to a breach by the Contractor of the Main Contract.

.3 The Subcontractor shall indemnify the Contractor against:

(a) any breach, non-observance and/or non-performance by the Subcontractor of such obligations;

(b) any act and/or omission of the Subcontractor which gives rise to the Contractor incurring liability to the Employer; and

(c) any claim, loss, damage and/or expense due to, or resulting from, any act, omission, negligence or breach of duty by the Subcontractor.

Note, the precise wording of this indemnity must be tailored to the equivalent Main Contract wording.

.1 Insofar as he has not already done so, the Subcontractor shall immediately effect and thereafter maintain throughout the duration of the Subcontract Works:

(a) all Insurances required under Law, including [Employer's Liability Insurance] and [Motor Liability] insurance as stated in Appendix __; and

(b) until the twelfth anniversary of the Completion Date, professional indemnity insurance, as stated in Appendix __, in respect of his professional duties in the performance of its professional obligations under this Subcontract.

.2 The Insurances referred to in Clause .1 shall be effected with such insurers, and in such form and substance, as may be approved from time to time by the Contractor.

.3 The Subcontractor shall not take any action or fail to take any action or (insofar as it is reasonably within its power) permit anything to occur which would entitle any insurer to refuse to pay any claim made under the Insurances referred to in Clause .1.

.4 The Subcontractor shall provide to the Contractor, upon reasonable request from time to time, proof (in the form of a letter or certificate from the Subcontractor's insurer or insurance brokers) that all relevant premiums in respect of the Insurances referred to in Clause .1 have been paid and that the policies remain in force and are held by the insured without encumbrance.

The general position underscores the importance to MC of:

- Due diligence, i.e. investigating NSC's capacity to comply with his obligations under the subcontract.
- Reliance where appropriate on the right of reasonable objection.

Delay or Disruption of the Works

Red Book 4th, Clause 44: The extension of time shopping list simply does not include delay caused by NSC as a ground for an extension of time.

SIACC, Clause 23: MC may be entitled to an extension of time for delay caused by:

- An Architect's Instruction under Clause 28 (3) in regard to Contingency Sums; or
- An Architect's instruction under Clause 29 (3) to subcontract with an NSC with whom MC has raised a valid objection

Otherwise, there is no basis for an extension of time for delay caused by NSC.

If MC cannot secure suitable amendment of these provisions, then the problem MC will encounter is that he will carry the risk of delay to the Works and resulting delay costs caused by NSC's acts, defaults and/or breaches of contract.

The Employer is unlikely to agree to expand the extension of time shopping lists, and the most promising risk management solution, therefore, is for MC to lay off the exposure to liquidated damages through a specific indemnity in the Subcontract conditions.

.1 The Subcontractor acknowledges that failure to achieve Completion of the Subcontract Works by the Subcontract Completion Date may cause the Contractor to suffer prolongation and other costs, expenses and losses

.2 Without derogating from the generality of Clause .1, the Subcontractor acknowledges that the Employer shall be entitled to recover from the Contractor liquidated damages, calculated at the rate stated in Appendix __ to the Main Contract Conditions, if the Main Contract Works remain incomplete at the latest date for completion of the Main Contract Works pursuant to Clause__ of the Main Contract Conditions.

.3 The Subcontractor shall indemnify the Contractor for any costs, expenses and losses referred to in .1 hereof and a fair proportion of any liquidated damages referred to in .2 hereof if and to the extent that the delayed completion of the Main Contract Works was caused (in whole or in part) by the Subcontractor, which sums shall be payable on demand as a debt.

Insolvency

Under the SIACC, MC carries the risk of delay to the Work due to the insolvency of NSC. This is because, unlike some standard form building contracts, SIACC does not require the Architect to replace an insolvent NSC.

It is unclear whether the Red Book 4th requires a re-nomination, and this probably is why we find references to the "named subcontractor." Named subcontractor provisions represent an attempt by Employers to enjoy the power to select without any duty to re-nominate in the event their "named subcontractor" becomes wholly disabled from discharging subcontract obligations.

Therefore, MC is left to pick up the pieces and procure the completion of the Works.

The most promising solution to the risk of NSC insolvency is, of course, bonding.

Nominated practice in East Asia does tend to lead to complex bonding issues, as the following contemporary scenario illustrates:

- The Employer nominated an NSC for a critical portion of the main contract works.
- The Employer stipulated to MC the terms and conditions of the subcontract. This did not include providing a bond for the benefit of MC. But, the subcontract required the NSC to procure a bond in favour of the Employer.
- MC did not object to NSC and did not independently require NSC to procure a bond in favour of MC.
- NSC defaulted, and as a result, MC was faced with additional costs to complete the Works.
- The Employer called the bond and, pursuant to the main contract conditions, used the funds to contribute to MC's additional cost of completion.
- NSC reimbursed the bonding company and brought a claim against MC for an account of surplus bond monies under English Law.

Insolvency - Possible Solutions: FIDIC

59.2 Nominated Subcontractors: Objection to Nomination

The Contractor shall not be required by the Employer or the Engineer, or be deemed to be under any obligation, to employ any nominated Subcontractor against whom the Contractor may raise reasonable objection or who declines to enter into a subcontract with the Contractor containing provisions:

a) that in respect of the work, goods, materials, Plant or services the subject of the subcontract, the nominated Subcontractor will undertake towards the Contractor such obligations and liabilities as will enable the Contractor to discharge his own obligations and liabilities toward the Employer under the terms of the Contract and will save harmless and indemnify the Contractor from and against the same and from all claims, proceedings, damages, costs, charges and expenses whatsoever arising out of or in connection therewith or arising out of or in connection with any failure to perform such obligations or to fulfill such liabilities, and

b) that the nominated Subcontractor will save harmless and indemnify the Contractor from and against any negligence by the nominated Subcontractor, his agents, workmen and servants and from and against any misuse by him or them of any Temporary Works provided by the Contractor for the purposes of the Contract and from all claims as aforesaid, and

c) that the nominated Subcontractor shall provide to the Contractor a guarantee or performance bond for the due performance by the Subcontractor of all of its obligations under the subcontract in such form acceptable to the Contractor issued by a bank or insurance company satisfactory to the Contractor, such bond to be for [ ] per cent of the subcontract price and shall be released on the date of issue of the final certificate under the subcontract.

Insolvency - Possible Solutions: SIACC

Subcontract Forms

Christopher Wade - Chairman Contracts Committee
New Contracts Seminar, FIDIC 2004 Annual Conference
Copenhagen 16 September 2004

1. Relevant Factors

As mentioned earlier, one of CC's Task Groups is being formed to develop a standard form of Subcontract for use with the 3 major Contract forms. It will of course be for use between the main contractor and his subcontractor(s).

FIDIC is embarking on this initiative with a certain amount of trepidation. A form of Subcontract was produced for use with the existing Red Book. A great deal of trouble and time went into its production, and when it had been produced not a great number of copies were sold. The reason may have been that it was published so long after the Red Book had been in operation that parties had long since arranged their subcontract conditions. In any case, as far as FIDIC was concerned, the Red Book Subcontract form was not a financial success. Obviously FIDIC does not have the wish to produce a new standard form if the demand is not sufficient to warrant the work and cost involved.

The second cause for consideration is whether FIDIC should really be involving itself in such a document, which is really an internal matter between contractors and their subcontractors. Surely it is a matter to be sorted out between contractors' organisations and subcontractor and/or supplier organisations. In fact FIDIC has sounded out the EIC (the European International Contractors' Association) as regards FIDIC's embarking on this task. The initial reaction of EIC was negative, virtually telling FIDIC that such a form was not the business of a Consultants' organisation and we should not interfere.

However, since the publication of the 1999 Forms, FIDIC has received a steady stream of requests for a form of Subcontract to be prepared. FIDIC prepared one for the Old Red Book, why is there not one for the New? Requests have come from Consultants and from those working on behalf of Contractors and others. The most insistent request of about 2 years ago came from South African Consultants, perhaps because the employer wished to monitor the subcontracts being used between his contractors and their subcontractors, presumably to ensure that the subcontractors were being reasonably treated. It is understood that those Consultants were forced to produce their own Subcontract document. Since then we have noticed an ever-increasing demand for FIDIC to prepare a suitable form to tie in with the major 1999 forms. Most recently we have been approached by a Consultant preparing documentation for a European contractor engaged in large infrastructure projects in Africa. As outside financing is being used, the Employer's contract documents specify FIDIC 1999, and so the subcontracts should obviously tie in with the main contractor's obligations under FIDIC 1999.

2. Within FIDIC's Domain?

And then FIDIC has come in contact with a number of subcontractors who feel, rightly or wrongly, that they are being treated badly by their main contractors, even when the main contract is based on a FIDIC form. I think it is a well-known fact that some large contractors do have a tendency to treat their subcontractors unduly harshly. Many of the subcontractors are smaller organisations who rely entirely on the much larger and more powerful main contractors. They are sometimes forced to accept harsher - and sometimes unreasonable - conditions by their employers, i.e. the main contractors, and they have little chance of redress. If, for example, the main contractor delays or reduces their rightful payment they have very little recourse. They do not have the financial backing or muscle or desire to take legal action for redress, and., if they did. they probably would not get further work.

Whereas FIDIC is loathe to interfere in areas outside its domain, if the main contract is under a FIDIC standard form, is it really outside of FIDIC's domain to have an interest in how the subcontract is formulated? Particularly if the subcontractor comes to FIDIC or the financier and complains that the main contractor is working under a fair FIDIC contract. but the subcontractor is working under a much harsher set of conditions? Do large employers, and particularly major financing organisations, not nowadays have an ever-increasing wish to see that the `little men' are also being fairly treated?

FIDIC has noticed increasing interest from morally-minded employers, financiers and institutions to ensure fair treatment right down the line from main contractors, to subcontractors and suppliers, to the workmen and local labourers on the site.

Whereas FIDIC would not like to be classed with the 'do-gooder' mentality, as a champion of the 'underdog', FIDIC has always been considered as a fair and impartial organisation, working for the long-term best of the construction industry as a whole. The FIDIC Books are all about fair treatment for all involved, and - if it were not so - the FIDIC Books would never have achieved the universal acceptance that they have. Consequently, where FIDIC sees unfair practices in the construction field, FIDIC should do what it can to correct the situation, just as FIDIC has joined in the fight against corruption. If main contractors are intent upon following fair practices towards their subcontractors - as I am sure most main contractors are - then they should have nothing to fear from FIDIC's production of a fair subcontract form. Furthermore we believe major employers and international financiers will welcome this initiative from FIDIC, not to mention to use it will be to contractors, consultants and others preparing subcontract documents. It is possible that FIDIC may - when the Subcontract form has been published - include a clause in the main Contract forms that requires the main contractor to use the Subcontract form in his subcontracts.

3. Issues for Consideration

After consideration of the above aspects, and in view of the persistent demand, FIDIC is of the opinion that a Subcontract form would be a desirable addition to FIDIC's publications.

However, the question still arises as to who and how many will purchase the Book. As mentioned the previous Subcontract form was no financial success. The persistent requests indicate that there will be a significant demand, but obviously not the same demand as for the major Books themselves. Possibly a requirement in the main Books that contractors utilise the Subcontract form may increase the sales.

Then there is always the question of human resources. First, there is the existing FIDIC Subcontract form for use with the Old Red Book that will provide the basis for the New Book. Then it is hoped that those who themselves have already been forced to draft a subcontract form may be willing to allow their work to be used, and of course there are various other subcontract forms in existence which will be studied. So it is not a question of reinventing the wheel!

In addition an approach has been made to EIC to assist with the work. Obviously it is in the interest of all concerned that the Contractors' organisations takes part in the logic discussions and in due course accepts the final product. Similarly it is of paramount importance that subcontractors' and suppliers' organisations accept and bless the final product, and it is intended to get them involved.

4. Initial Decisions

CC's first task is to locate suitable persons and try to establish a competent Task Group who are prepared to take on this difficult project. At the same time the Terms of Reference and budget are to be prepared for final approval of the Executive Committee.

Major initial considerations include whether there should be one book for use with each of the 3 major Books, or whether there should be 3 separate Subcontract Books: or perhaps one basic book with alternative clauses customised to suit the different Books.

The work will presumably commence with the identification and study of the forms of subcontract currently being used in the industry by various stakeholders. Thereafter there will be major principal decisions to be taken by the Task Group on such issues as 'pay-whenpaid' provisions, extent of 'back to back' or other allocation of risks, limit of liabilities, and so on.

CC will welcome all relevant useful tips and comments concerning current forms in use, suitable persons to serve on the TG or who have suitable knowledge and experience who may at least be contacted in this regard, and any other aspects.

Christopher Wade
Chairman Contracts Committee

International Federation of Consulting Engineers
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BIDP
PUBLICATIONS REVIEW COMMITTEE

Schedule of meetings

Next Publications Review Committee meeting will be held on Tuesday, 14th October, 2008 at at Wimpy, Riverwalk at 7:30am.

Schedule for 2008:

Tuesday, 5th August, 2008
Tuesday, 11th November, 2008

Proposed extended schedule for 2009:

Tuesday, 10th February, 2009
Tuesday, 12th May, 2009
Tuesday, 11th August, 2009
Tuesday, 10th November, 2009

David Young
Adhoc Contract Review Committee Chair

		Fax	Email
Cc:	G Vlug	533 7249	vlug@mega.bw
	L Hutchings	318 2016	randyb@gbs.co.bw
	B Alemarumo	395 3698	ALEMARUMO@mopipi.ub.bw
	M Mogomela	316 4580	mogomela@it.bw
	U Soderstrom	397 4465	ulf@mega.bw
	A Hakim	577 3530	
	President, BIDP		mazhaniet@mopipi.ub.bw

EMAIL TO All committee
ON DATE 10/10/08
BY

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Paid members by Chqs

PAYMENT OF ATTENDANCE FEES

No	Date of meeting	Mazhani	Pd	Young	Pd	Vlug	Pd	Alemarumo	Pd	Hutchings	Pd	Mogomela	Pd	Hakim	Pd	Soderstrom	Pd	Mangadi
1	17 November 2005	Y	x	Y	x	Y	x		x		x		x					Absent
2	09 May 2006			Y		Y		Apology	x	Apology	x							Absent
3	07 August 2006			Y	14/9	Y	14/9	Y	14/9									Absent
4	14 November 2006			Y	16/11	Apology	x	Y	16/11	Apology	x							Absent
5	13 February 2007			Y	22/1	Y	22/1	Y	22/1	Y	22/1							Absent
6	08 May 2007			Y	22/1	Y	22/1	Y	22/1	Apology	x							Absent
7	07 August 2007			Y	22/1	Y	22/1	Y	22/1	Apology	x	Y	22/1	Apology	x			Absent
8	12 February 2008			Y	7/5	Apology	x	Y	7/5	Absent	x	Y		Absent	x			Absent
9	07 May 2008			Y	7/5	Y	7/5	Apology	x	Y	7/5	Apology	x	Absent	x	Y	7/5	Absent
10	14 October 2008			Y	10/11	Y	10/11	Absent	x	Y	10/11	Y	10/11	Apology	x	Y	10/11	Absent
11	11 November 2008			Y	10/11	Apology	x	Absent	x	Y	10/11	Apology	x	Y	10/11	Y	10/11	Absent
12	10 February 2009			Y	10/11	Y	10/11	Absent	x	Absent	x	Absent	x	Apology	x	Apology	x	Absent
13	12 May 2009			Y	10/11	Y	10/11	Y	10/11	Absent	x	Y	10/11	Apology	x	Apology	x	Absent
14	15 September 2009			Y	10/11	Y	10/11	Apology	x	Absent	x	Apology	x	Y	10/11	Y	10/11	Absent
15	13 October 2009			Y	10/11	Y	10/11	Absent	x	Absent	x	Absent	x	Apology	x	Y	10/11	Absent
16	10 November 2009			Y	10/11	Y	10/11	Absent	x	Absent	x	Absent	x	Y	10/11	Y	10/11	Absent
17	08 December 2009			Y	9/10	Y	9/10	Y	9/10	Y	9/10	Y	9/10	Absent		Apology		Absent
18	04 February 2010			Y	9/10	Y	9/10	Absent		Absent		Y	9/10	Absent		Y	9/10	Absent
19	08 June 2010			Y	9/10	Y	9/10	Absent		Absent		Absent		Absent		Absent		Absent
20	10 August 2010			Y	9/10	Y	9/10	Y	9/10	Absent		Y	9/10	Absent		Absent		Absent

Date of print 9/10/2010

BIDP PRC 11 May 10

- Remove 'the engineer' from the sub-contract: except [direct payment [name] notify sub of payment]
- Renumber/spelling:

Prev mins

Fidic Sub-contract:

DW has done his review:

clause in DW requires can to require evidence sub-cont has been paid a previous → the main Certificate for payment.

→ Principle: Nom subcon employed by main contractor.
GV says 'but nominated by ~~main~~ employer.
Provision for direct payment.
GV some of differences between con & subcon: need to pass [extension of time claims] to the engineer.

Can copy data to engineer when submitting to contractor. But DW notes principal agents have refused to act on subcon data unless channelled through contractor.

Obligation – To present written subcon agreement for DBES.

Suggest meet 2 weeks time:
DY look at variant sheet from.
When should subcon be signed.

~~BAI~~ PFI

8/11

- Turn-key contracts. [aka design & build] [fragmenting at handover only] (focus on single responsibility, repairs only by consultant advisor)
- PPP contracts [design build finance maintain]

[Wednesday am:
have web databases
set up https on web
establish procedure for creating & using accounts is working.
try to get email send working [max 1h] NB sendmail setting allows a force site name item.]

- Comit does not want to fund a ~~SMART~~ FIDIC subcon unless there is demonstrated market.
- Confirm the selling price of the FIDIC subcontract.
- What utility would there be in slightly editable (ie fill in gaps, define insurance clause) edits versions of contract.

  Also: page of advisory notes with main contracts, & also text for publications overall.

5.1 edit the name to include 'and Engineering'

5.2 Drop.

5.3 Price £200 for now.

5.4 ET may have listed on web site

X:\BIIDP\CEC\Labour Only on Minor Works.odt

BIIDP

Labour only on the minor works form:

Help U labour only items raised:

"do not carry insurance of the works"
responsibility for subcontractors, their insurances & indemnifications. [+ supplies]
security for site, materials is by contractor
hats by contractor inc for site meetings
"water & power to be supplied by employer" – no temp water connection
contractor to prepare a programme
materials are to be supplied by the employer
confirm with authority the corner pegs for the plot
site notice board extra.
call authority for progress inspections, ~~position~~ of occupation

---

Minor works

cut out 2(c)(d) depending on specifics
3: employer will reimburse
7(a) for contractor
7(b) for ~~employer~~ contractor
7c or 7a + ~~employer or 7(b)~~
8 a employer
10(a) exclude materials on site
11 add mediation step?
12(c) cut unfixed materials or goods

Both notes

Ensure clarity on 1+9 costs including items in 2
Wastage of materials to be agreed in advance & allowed for in ordering. Marking for contractor or any direct purchases or subcontractors
Marking on subcontractors

Waivers to be published on council members

Clarify who supplies forks [other large items see 6]
Site storage & accommodation
Site security 24x7.

Mr Kedetile of KHM
Not happy with the quality
2014.12

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ARCHITECT'S APPOINTMENT

1980 Edition, revised January, 1986, August, 1989, November, 1998 and November 2001

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	6	Part 2 : Normal Services
	9	Part 3 : Fees for Normal Services
	13	Part 4 : Other services
	15	Part 5 : Time charges
	16	Part 6 : Out of pocket expenses
	17	Part 7 : Abandoned works and interpretation
	19	Appendix A
	20	Appendix B
	23	Index

Tables

12	Table 1 : New works
12	Table 2 : Works to existing buildings
12	Table 3 : Apportionment of fees between stages of services

The numbering of clauses

Each part is divided into sections, clauses and sub-clauses which are numbered as follows:

Sections have 2 digits, thus	1.2
Clauses have 3 digits	3.20
Sub-clauses have 4 digits	3.401

It is advisable to read clauses in the context of the Section as a whole in which they appear, and essential to read sub-clauses in conjunction with the main clause to which they are related.

NOTES GIVEN BY L HUTCHINGS :

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NEC 3 ADJUDICATOR'S CONTRACT JUNE 2005

REVIEW COMMENTS

The NEC 3 Contract is a sound method of providing an alternative means of dispute settlement between Parties in conflict in the United Kingdom, which is fairly new in concept and application in Botswana.

The NEC 3 Contract (June 2005) does not include the 2009 revisions, which can be down loaded from http://www.neccontract.com/amendments free of charge
(These apply only to England, Scotland and Wales)

Page 1
FORM OF AGREEMENT
This sets out the contacts of the Parties appointing the Adjudicator and the agreement details and signatures under the terms as set out in the Contract data at the end of the publication.

Page 2
GENERAL

- This sets out the fact that the Parties are bound by the conditions of the contract and requires the Adjudicator to act impartially and declare any conflict of interest and provides a definition of expenses which includes any specialist advice that the adjudicator may require to complete the adjudication from a third party, definitions and the channel of communication procedures are also are also set out in principle.

Page 3
ADJUDICATION

- The adjudicator does not decide the basis of the dispute and the decision is made in respect of the prescribed disputed only.
- Any information required by the Adjudicator from a third party if made available for comment by the Parties.
- The adjudication is confidential to the Parties.
- The documents are kept for a prescribed period of retention.

PAYMENT

- The Party referring the dispute makes an advanced payment as required within one week of the referral, unless other wise agreed the Parties share the cost of the adjudication.
- The Adjudicator calculates the fee and provides invoices to the Parties for each Party's share.
- The amount due is related to the time spent on the dispute issue, the time spent on travelling and the disbursements incurred less any advanced payments made by the Parties and any tax which is required such as VAT.
- Payment is to be made by the Parties within three weeks of the receipt of the Adjudicator's fee in the specified currency unless other wise stated.

Page 4

LATE PAYMENT

- Late payment is subject to an interest charge from the date of specified payment on a daily payment compounded annually at the prescribed rate.

NON- PAYMENT

- If one of the Parties fails to make payment, the otherParty makes payment with interest and the defaulting Party then pays the other Party.

TERMINATION

- The Parties may terminate at any time by agreement and must notify the Adjudicator
- The ~~termination~~ may terminate by notifying the parties.
    - If he cannot act because of a conflict of interest
    - He is unable to determine the dispute
    - An advance payment has not been made
    - Payment has not been received within five weeks
- The appointment is terminated on the prescribed date unless other wise terminated

Page 5

CONTRACT DATA

- The Contract between the parties
- The period of Retention
- The law of the Contract
- The language of the Contract
- The amount of the advanced
- The interest rate % per annum
- The currency of the Contract
- The date of the Termination of the Contract

OPTIONAL STATEMENTS

- The period of payment if not three weeks
- Any other additional conditions of Contract

Comments

The Adjudication process falls under the law of Contract.

The parties may agree under Contract to any variation and thus opt for adjudication under the Contract even if the contract per se makes no mention of adjudication.

In Adjudication the general principles of fairness, lack of bias and the independence of the Adjudicator follow the same criteria as those under the arbitration process, which is a more traditional method of dispute settlement. The adjudicator does not however act in a panel as is done in some cases in Arbitration.

However the Arbitration Act in Botswana does not made any provision for the process of Adjudication

and this has been considered as a delaying tactic used by some parties, who seek after the event to procrastinate payment until a legal case is made under general laws.

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1 Short contract
2 Choosing the right NEC contract
3 Adjudicator's contract Guidance notes and flow charts
4 Adjudicator's contract

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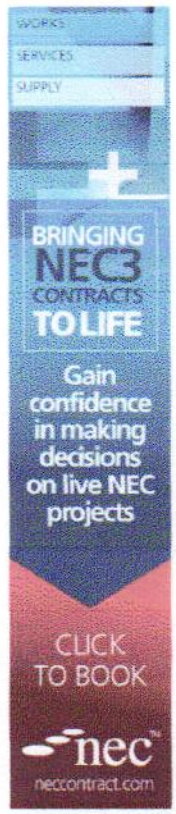

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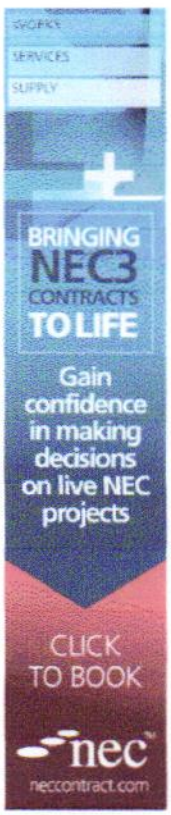

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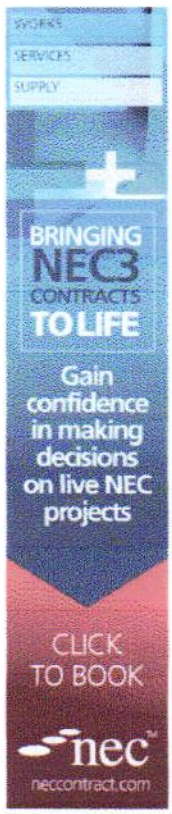

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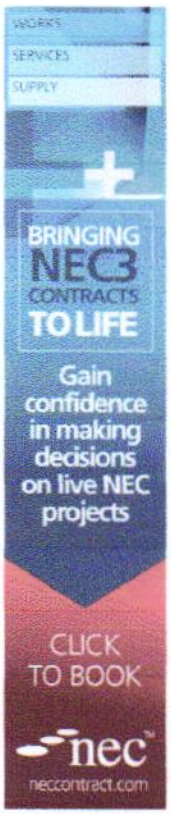

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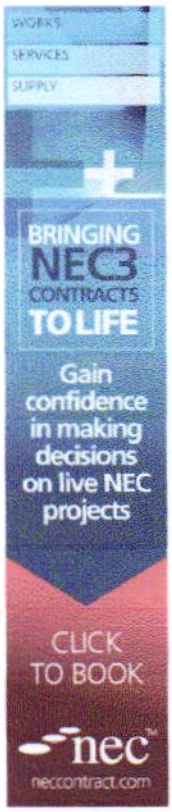

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BookFormat: Paperbound
ISBN: 9780727733788
Published Date: 01/06/2005

List Price: £15.00
NEC Platinum/Gold Member Price: £13.50

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ISBN: 9780727733702
Published Date: 01/06/2005

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BookFormat: Paperbound
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BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS

P.O. Box 827
Gaborone

Fax: 3971181
Mobile (Executive secretary): 7181 6811
e-mail: bidp@mega.bw
website: http//www.bidp.bw

3rd September, 2011

TO ALL BIDP MEMBERS

Notice of the Annual General Meeting

The Botswana Institute of Development Professions will convene its 34th Annual General Meeting on Tuesday, 25th September, 2012 at the Botswana Craft. The function will start at 18:00hrs

There will be a talk by Leta Mosienyane first at 6pm.

After the intermission, we shall proceed with the AGM.

There will be snacks after the talk.

The AGM agenda will be as follows:

1	Introduction
2	Notice convening AGM
3	Apologies
4	Minutes of the 33rd AGM and Matters arising
5	Treasurer's report
6	President's report
7	Election of Officers
8	Any other Business

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FORM	IN STOCK	SOLD	PRICE EACH	TOTAL AMOUNT
Minor works	22	22	50.00	1100.00
With Quantities	11	44	100.00	4400.00
Without Quantities	12	14	100.00	1400.00
Nominated sub contract	9	9	70.00	630.00
Nominated sub contract – Major works (related to fidic)	3	0	200.00	0.00
Domestic sub contract	13	6	70.00	420.00
Architect appointment	3	6	70.00	420.00
Consultants Agreement	9	12	50.00	600.00
Architectural competitions regulations	1	0	30.00	0.00
Logo for site notice board	61	0	30.00	0.00
Certificate for payment pads	0		70.00	0.00
Architect Instruction pads	0		70.00	0.00

minor labour only

TOTAL SOLD: **8970.00**

bidp -> bidpmem

Name	Firstname	Current	Profession
Akanyang	Robert	y	4q
Allison-Broomhead	Graham Ian	y	4q
Basiami	Otshegeditse B K	y	4q
Bathuleng-Mookodi	Marina	y	4q
Carrier	Kenneth Michael Morton	y	4q
Chiwila	Amos Gregory Matendeko	y	4q
Davey	Brian Peter	y	4q
Hutchings	Lawrence James	y	4q
Jones	Gordon Barrie	y	4q
Kgosiemang	Gontse J.	y	4q
Kille	Alan Arthur	y	4q
Latilla	Kim Everitt	y	4q
Maina	Anthony Mbugua	y	4q
Mathware	Ogaketse Thopho	y	4q
Matlapeng	Andrew	y	4q
Mhutsiwa	Boyce O.	y	4q
Mmile	Dithologo	y	4q
Mogomela	Martin Molao	y	4q
Moje	Evans	y	4q
Morake	Kabelo	y	4q
Morton	Timothy Paul	y	4q
Motsumi	G. A.	y	4q
Muchengwa	Dorica Milonga Daka	y	4q
Mwitumwa	David Kabuku	y	4q
Nkumba	E	y	4q
Nthase	Phenyo	y	4q
Orando	Marcellus	y	4q
Oranye	Chike Ikemefuna	y	4q
Osemenam	Emeka Azubike	y	4q

Owusu-Appianti	Godfrey	y	4q
Palalani	Koziba Gumbu	y	4q
Price	Owen Sean	y	4q
Rasedibo	Letlhogonolo Shono	y	4q
Rettig	Keith Philip	y	4q
Richards	Peter Maurice	y	4q
Rynn	Marc D.	y	4q
Samman	Joseph	y	4q
Todd	David John	y	4q

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BIDP publication review data listing: detailed view of entry

Friday 10th October, 2008

Adopted 14/10/08 by PRC

Restart

PRC members: add a comment

View table entries

Home

ID 30

Review reference 2007-08-22-3

Product name appconConsultant agreement form

Motivation CRC meeting May 2007

Text as approved by council on 24my07. It was decided that clause 7.3.1 needed further amendment as indicated in the proposed text below.

Existing text Consultant appointment: Existing 2000 page 4 clause 7

7. DISPUTES.

7.1. Disputed accounts.

If any item or part of an item in an invoice submitted by the Consultant is contested by the Client, the Client shall give prompt notice with reasons and shall not delay payment on the remainder of the invoice.

7.2. Claims for Loss or Damage.

Subject to Clause 6.4 any claim for loss or damage arising out of breach or termination of the Agreement shall be agreed between the Client and the Consultant or, failing agreement, shall be referred to arbitration in accordance with Clause 7.3.

7.3. Arbitration.

Any dispute or claim arising out of or relating to this Agreement or the breach, termination or invalidity thereof, shall be settled by arbitration in accordance with the rules stipulated in Appendix D in force at the effective date of the Agreement.

The parties agree to comply with the awards resulting from arbitration and waive their rights to any form of appeal insofar as such waiver can validly be made.

Proposed text 7 TERMINATION, Abandoned AND RESUMED works

7.1 Termination

An engagement entered into between the consultant and the client may be terminated at any time by either party on the expiry of reasonable notice, when the consultant shall be entitled to remuneration in accordance with Section 5.

7.2 Abandoned works

7.2.2 Notwithstanding Clause 7.2.1, if instructions for the consultant to continue work are not received from the client six months after such instructions were requested, the commission shall be deemed to have been abandoned.

7.2.3 Where a commission is abandoned or any part of the works is omitted at any time before completion, fees for partial service in respect of the whole or part of the works shall be charged for all services provided with due authority.

7.3 Resumed commissions

7.3.1 If a commission which has been abandoned is resumed without substantial alteration within two years, any fees paid under Section 7.2 shall rank solely as payments on account towards the total fees payable on the execution of the works and calculated on their total construction or such other basis or is agreed in appendix C.

7.3.2 Where a commission which has been abandoned is resumed at any time with substantial alteration or is resumed after two years, any fees paid under Section 7.2 shall be regarded as final payment for the service originally rendered. The resumed commission shall then be deemed separate, and fees charged in accordance with appendix C of these Conditions.

7.3.3 All additional work arising out of a commission which is resumed in accordance with Clause 7.3.1 shall be charged on a time basis.

Comments

Last updated 2007-11-23

PRC members: add a comment

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ser software developed for BIDP by David Young using LAMP, 2005-7

BIDP publication review data listing: detailed view of entry

Friday 10th October, 2008

Approved by Council 29/9/08

Restart

PRC members: add a comment

View table entries

Home

ID	15
Review reference	2007-08-02-1
Product name	apparcConditions of engagement for architects
Motivation	D Young meeting May 2007
Existing text	Item 4.81 minimum fee of 3 hours 4.81 Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be not less than P240.00/hour with a minimum fee of P720.00.
Proposed text	4.81 Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be as agreed with the arbitrator, with a minimum fee equating to a three-hour charge.
Comments	Email from: G Vlug: 23/08/07 at 7.20.08 am Consultant's Appointment item: 4.81 ********** Date: Thursday 7.20.08 am I only can get this clause in the architect's appointment, not in the consultant's agreement. I do not think that you will get anybody - a qualified arbitrator - to work for this rate. My rate for interlocutory proceedings (attending meetings and writing letters) is P**/hour, whereas it is for hearing evidence and writing the award P **/hour. I am one of the cheapest! Most arbitrators are working for P ** and up. I would, however, leave it out altogether as an arbitrator must be appointed by both parties. He can never be a person which already has a contract with one of the parties as this would make him biased in favour of his client. Normally in an arbitration the arbitrator calls for an initial meeting between the parties and discusses his fees, which then form part of the minutes and are supposed to be signed by both parties or their representatives.

For that reason 4.81 should be omitted altogether. Even expert witnesses can claim any amount. Where an architect is called in an arbitration as witness, he will be a witness of fact. He can never act as expert witness. That should be somebody else!

I hope this clarifies the matter.

Last updated 2007-11-23

PRC members: add a comment

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BIDP publication review data listing: detailed view of entry

Friday 10th October, 2008

Approved by Council 24/5/07

Restart

PRC members: add a comment

View table entries

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ID	32
Review reference	2007-08-22-5
Product name	appconConsultant agreement form
Motivation	CRC meeting May 2007 New clause no. 9. Change as a result of 2007-08-22-4 This clause would follow inserting of clause 8 'DISPUTES'
Existing text	
Proposed text	9. COPYRIGHT. 9.1 Publication. Unless otherwise specified in Appendix D, the Consultant, either alone or jointly with others, can publish material relating to the works and services. Publication shall be subject to approval of the Client if it is within two years of completion or termination of the services. 9.2. Copyright. The Consultant retains copyright of all documents prepared by her. The Client shall be entitled to use them or copy them only for the works and the purpose for which they are intended, and need not obtain the Consultant's permission to copy for such use.
Comments	
Last updated	2007-11-23

PRC members: add a comment

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BIDP publication review data listing: detailed view of entry

Friday 10th October, 2008

Restart

PRC members: add a comment

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Home

ID	29
Review reference	2007-08-22-2
Product name	appconConsultant agreement form
Motivation	CRC meeting May 2007

5. PAYMENT

5.1. Payment
Payment for the services shall be calculated, charged and paid as set out in Appendix C. (no default to cover termination).

still on process 14.08.08

5.8. Payment on Suspension / Termination.
On suspension or termination of the appointment the Consultant shall be entitled to, and shall be paid, fees for all services provided to that time calculated as incomplete services, and shall be entitled to expenses and disbursements reasonably incurred to that time. (no default to cover termination).

Existing text Consultant appointment: Existing 2000 page 3 clause 3

5. PAYMENT

5.1. Payment
Payment for the services shall be calculated, charged and paid as set out in Appendix C.

5.8. Payment on Suspension / Termination.
On suspension or termination of the appointment the Consultant shall be entitled to, and shall be paid, fees for all services provided to that time calculated as incomplete services, and shall be entitled to expenses and disbursements reasonably incurred to that time.

Proposed text	
Comments	
Last updated	2007-08-22

PRC members: add a comment

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BIDP Publications Review Committee

From: Secretary <bidp@mega.bw> (Botswana Institute of Development Professions)
To: Michael G H Yates <mghyates@yahoo.com>
Date: 11/07/2008 11:49

We have not had a response to our inquiry on your continued involvement, so assume that you have withdrawn from participation for the time being.

Thank you for your contribution to the BIDP Publications Review Committee.

Regards,

BIDP Publications Review Committee, Chairman
David Young

BIDP AD-HOC PUBLICATIONS REVIEW COMMITTEE

PROGRAMME: updated 29my08

Reference	Details	Response	Deadline
Consultant Appointment 2007-08-22-1	Add new clause 2.5 to section 2 Interpretation. (Approved by council only to be implemented when clause 8 'Disputes' is created)		
Consultant Appointment 2007-08-22-3	Add a termination clause to consultants appointment: original revised text was approved by council. Further issues were subsequently noted to PRC.		13mr08
Consultant Appointment 2007-08-22-4	Clause 8.3 add word 'The appointed arbitrator's cost will be ... ' (Approved await implementation).		
Consultant Appointment 2007-08-22-2	M Mogomela email 8ag07: Defaults to Appendix c will follow: ET to chase MM: ET checked MM on 16no07: MM stated will see when to send.		13mr08
Consultant Appointment 2007-08-22-5	Clause 9 'Copyright' (approved by council will follow after inserting clause 8 'Disputes')		
Architect Appointment 24my07	Clause 7.50 add word 'The appointed arbitrator's cost will be .... ' (Approved await implementation)		
Architect Appointment 2007-08-02-1	Clause 4.81 amend as "Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be as agreed with the arbitrator, with a minimum fee equating to three-hour charge". (Approved await implementation)	Approved 25mr08	
Architect Appointment 2007-08-01-1	L Hutchings email 10jy07: Settlement of disputes - mediation clause D Young comment: 23ag07: 'This motivation represents a change of principle in our dealing with differences, which presumably would apply to all agreements. We need to carefully assess whether it is practical and necessary in all the documents including the present one' U Soderstrom comment: 5mr08 sent to all 6mr08.		13mr08
Domestic Subcontract 2007-08-12-1	Proposal received by all: M Yates: stated draft is fine. DY/GV: eliminate capitals at start of sentences: ET to do search and replace – done 23no07 Input on roles needed Approved by council: final form printed.	Approved 29ap08	

BDP PRC 4/fe10

Fidic non subcon form.
No comments by 3/fe10
Still to add direct payment provision. + take out proposed deletions.
Finish: today.

Go to print version A
- Legal scrutiny: pro subcon will fund: Limited brief to pick up conflicts with Laws of Botswana.

~~MOGO~~

MOGOMELA@BROBEMAIL.CO.BW
(Small Case)

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS

P.O. Box 827 – Gaborone
Tel. 7181 6811 - shop fax 397 1181
e-mail: bidp@mega.bw
website: http//www.bidp.bw

Gaborone, Botswana 31st August, 2009

D Mutepfa
26 Bonnington Crescent
Sherwood
Nottingham NG5 3EY

Dear Member,

MEMBERSHIP SUBSCRIPTIONS

Annual renewal and arrears: P740.00 is due for payment.

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Executive Secretary, BIDP
Ellen Tshoganetso

Cc: Treasurer, BIDP
File

EMAIL TO Mutepfa
ON DATE 31/09/09
BY

BIDP AD-HOC PUBLICATIONS REVIEW COMMITTEE

PROGRAMME: updated 9se08 + (0c08)

Reference	Details	Response Deadline
Consultant Appointment 2007-08-22-1	Add new clause 2.5 to section 2 Interpretation. (Approved by council only to be implemented when clause 8 'Disputes' is created)	Approved by council 24my07
Consultant Appointment 2007-08-22-3	Add a termination clause (7) to consultants appointment: original revised text was approved by council. Further issues were subsequently noted to PRC.	pass to Council oc08
Consultant Appointment 2007-08-22-4	Clause 8.3 add word 'The appointed arbitrator's cost will be .. ' (Approved, awaiting implementation together with other items listed).	Approved by council 24my07
Consultant Appointment 2007-08-22-2	M Mogomela email 8ag07: Defaults to Appendix c will follow: ET to chase MM: ET checked MM on 16no07: MM stated will see when to send. Still nothing received from MM.	covered @ meeting
Consultant Appointment 09oc08.	D Young proposal Appendix C item 6: (if none stated will be on a time basis) and add new item 7: 'Indemnity Insurance'	✓ 0c08
Consultant Appointment 2007-08-22-5	Clause 9 'Copyright' (approved by council will follow after inserting clause 8 'Disputes')	Approved by council 24my07 → proceed to new text-
Architect Appointment 24my07	Clause 7.50 add word 'The appointed arbitrator's cost will be .... ' (Approved, awaiting implementation together with other items listed).	Approved by council 24my07
Architect Appointment 2007-08-02-1	Clause 4.81 amend as "Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be as agreed with the arbitrator, with a minimum fee equating to three-hour charge". (Approved, awaiting implementation together with other items listed).	Approved by council 29ap08
Architect Appointment 2007-08-01-1	L Hutchings email 10jy07: Settlement of disputes - mediation clause D Young comment: 23ag07: 'This motivation represents a change of principle in our dealing with differences, which presumably would apply to all agreements. We need to carefully assess whether it is practical and necessary in all the documents including the present one'	Oc08 see also Mogomela query.

proceed with new text.

EMAIL TO All Committee
ON DATE 10/10/08
BY

U Soderstrom comment: 5mr08: sent to all 6mr08. Another copy delivered to L Hutchings 27my08.
D Young to read and see what to propose 9oc08.

Nominated subcontract — Please bring the latest text of domestic subcontract and nominated subcontract to make a consitent with the domestic. — Oc08

adopted as a tank.

add.

Cc:

G Vlug	533 7249
B Alemarumo	395 3698
L Hutchings	318 2016
A Hakim	5773530
M Yates	3913628
M Mogomela	3164580
U Soderstrom	3974465
President, BIDP	
File	

Botswana Institute of Development Professions

Consultant appointment

Botswana Institute of Development Professions Publications Review Committee February 2009

Memorandum of Agreement

BETWEEN

1.....

.....THE CLIENT.

2.....

.....THE CONSULTANT.

WHEREAS

A. The Client intends to:

.....

.....THE PROJECT.

At

.....

.....THE LOCATION.

B. The Client wishes to appoint the Consultant for the Project and the Consultant has accepted the appointment subject to the schedule of conditions which follows this page.

RELATED DOCUMENTS.

The following documents are deemed to form part of this agreement:

a) The letter of acceptance.
b) Schedule of Services.
c) Scale of fees and schedule of payments.
d) Additional reference (where applicable): .....

.....

DATED: .....

SIGNED:

.....	.....
THE CLIENT	THE CONSULTANT

WITNESSED:

Name:	.....
Address:	.....
Description:	.....

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APPENDIX A

Scope of the Work / Services

1).....

.....

.....

.....

APPENDIX B

1) Equipment and facilities to be provided by the Client.

.....

.....

.....

.....

2) Provision of services by others to be provided by the Client.

.....

.....

.....

.....

APPENDIX C

1) Payment to the Consultant
Fees will be calculated on a time basis if no other method of calculating fees is indicated here:

.....

2) Stage payments

.....

3) Revision of rates

.....

4) Expenses

.....

5) Disbursements

.....

6) Interest on outstanding fees
The interest rate to be used in clause 6.7 is prime plus 2% unless otherwise specified here:

.....

7) Indemnity Insurance
A policy giving cover of P1,000,000.00 for any one occurrence and in the annual aggregate P1,000,000.00 for any one period of insurance will constitute sufficient insurance for clause 3.3 unless otherwise specified here:

.....

APPENDIX D

1) Duration of liability

.....

2) Arbitration rules

.....

3) Right to publish

.....

Botswana Institute of Development Professions Publications Review Committee February 2009

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Consultant appointment

BIDP Publications

Minor works form of contract
Without quantities form of contract
With quantities form of contract
Form of nominated subcontract
Form of domestic subcontract
Electronic forms under a four year licence
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Architect instruction pads
Architect's appointment
Consultant's appointment
BIDP regulations for the promotion and conduct of architectural competitions
Site notice board layouts draft

The above are available from the BIDP, PO Box 827, Gaborone, phone 7181 6811.

This form is published by the Botswana Institute of Development Professions

Price Band A

Agreement between consultant and client

January 2000 edition, revised February 2009

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Botswana Institute of Development Professions Publications Review Committee February 2009

BIDP AD-HOC PUBLICATIONS REVIEW COMMITTEE

PROGRAMME: updated 18no08

Reference	Details	Response	Deadline
Consultant Appointment 2007-08-22-1	Add new clause 2.5 to section 2 Interpretation. (Approved by council only to be implemented when clause 8 'Disputes' is created)	Approved by council 24my07	Proceed to new text 14oc08 edited
Consultant Appointment 2007-08-22-3	Add a termination clause (7) to consultants appointment: original revised text was approved by council. Further issues were subsequently noted to PRC.	Adopted Pass to council PRC 14oc08	gone to Council
Consultant Appointment 2007-08-22-4	Clause 8.3 add word 'The appointed arbitrator's cost will be .. ' (Approved, awaiting implementation together with other items listed).	Approved by council 24my07	edited
Consultant Appointment 2007-08-22-2	M Mogomela email 8ag07: Defaults to Appendix c will follow: ET to chase MM: ET checked MM on 16no07: MM stated will see when to send. Still nothing received from MM.	Covered 14oc08	edited
Consultant Appointment 09oc08.	D Young proposal Appendix C item 6: (if none stated will be on a time basis) and add new item 7: 'Indemnity Insurance'	Text edited 14oc08	edited
Consultant Appointment 2007-08-22-5	Clause 9 'Copyright' (approved by council will follow after inserting clause 8 'Disputes')	Approved by council 24my07	Proceed to new text 14oc08
Architect Appointment 24my07	Clause 7.50 add word 'The appointed arbitrator's cost will be .... ' (Approved, awaiting implementation together with other items listed).	Approved by council 24my07	Proceed to new text 14oc08
Architect Appointment 2007-08-02-1	Clause 4.81 amend as "Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be as agreed with the arbitrator, with a minimum fee equating to three-hour charge". (Approved, awaiting implementation together with other items listed).	Approved by council 29ap08	Proceed to new text 14oc08

new masters

new master

Architect Appointment 2007-08-01-1	L Hutchings email 10jy07: Settlement of disputes - mediation clause D Young comment: 23ag07: 'This motivation represents a change of principle in our dealing with differences, which presumably would apply to all agreements. We need to carefully assess whether it is practical and necessary in all the documents including the present one' U Soderstrom comment: 5mr08: sent to all 6mr08. Another copy delivered to L Hutchings 27my08. D Young to read and see what to propose 9oc08.	See also MM quote 14oc08
Nominated subcontract	Please bring the latest text of domestic subcontract and nominated subcontract to make a consistent with the domestic.	Text issued to PRC7no08

Cc:	G Vlug	533 7249
	B Alemarumo	395 3698
	L Hutchings	318 2016
	A Hakim	5773530
	M Mogomela	3164580
	U Soderstrom	3974465
	President, BIDP	
	File	

Copied to all council + PRC

Association of Electrical &
Mechanical Contractors of
Botswana

AEMCB

PostNet - KgaleView
Private Bag 149, Suite No. 185
Gaborone, Botswana
(+267) 395-7898 (T)
(+267) 391-3403 (F)

Our Ref: aemcb/BIDP/01

August 29, 2009

To:
The President
Botswana Institute of Development Professions
(BIDP)
GABORONE

RECEIVED
2009 -09- 03
BIDP

Attention: Mr. Groth / Mr Edward Majane

Dear Sir,

RE: AGREEMENT AND SCHEDULE OF CONDITIONS OF BUILDING SUB-CONTRACT (NOMINATED SUB-CONTRACT)

Through BOCCIM, we as an Association have been engaged in several meetings with the Department of Building and Engineering Services (DBES) with regards to the use and context of your above stated document.

The above document has been used by our members extensively in building contracts at sub-contract level. Although the document has been around for some years, it has become apparent that the DBES were not aware of its existence as well as its content.

We have been reviewing the above document (under the blessing of BOCCIM) together with the DBES and indications are that the "Main Document" which the DBES normally signs as the *Employer* with the *Main Contractor* is not in harmony with your above published document (e.g. use of nouns "Engineer" in Main Document and "Employer" used in the Sub-contract Document). These discrepancies have brought about numerous contractual issues in Government projects resulting in decision by Government to procure all sub-contract services under the Domestic arrangement. The Domestic arrangement had its own negative effects to the industry hence our present lobby to Government to revert back to Nominated arrangement.

The main document alluded to above is what is normally referred to as the RED BOOK - Conditions of Contract for Construction, published by FIDIC (copy herewith attached for ease of reference). Please note that the DBES is committed to us (as sub-contractors) using your *nominated sub-contract* document which we normally enter into with the Main Contractors at sub-contract level. However, the document has to be revised to use similar legal language as the Fidic RED BOOK

Through this letter we request yourselves to proceed in undertaking the above revisions OR indeed publication of a separate and aligned document to be used for the above purpose. It would help if you provided us with indication of any costs (if any) associated with the foregoing. We are aware however that copyright of the revised document will rest with BIDP.

Yours faithfully,

J. Moilwa

J. T. Moilwa
(Chairman)

J. M. Mangadi
(Secretary)

cc:

- PS/MoWT - (Mr. T. Siamisang)
- DBES - (Mr. T. Molotsi)

Association of Electrical &
Mechanical Contractors of
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J. T. Moilwa
(Chairman)
3932711

J. M. Mangadi
(Secretary)
3902996 / 7279 5172
Fax 391 4293

2 people from AEMCB
2 " " DBES

Botswana Institute of Development Professions

Ad-hoc Publications Review Committee

Members:

L Hutchings MBIDP 2005
G Vlug MBIDP 2005
D Young MBIDP-Chair 2005
B Alemarumo <Botswana Institute of Engineers 2006>
M Mogomela MBIDP 2007
A M D Allen MBIDP 2007
M G Yates MBIDP 2007
A Hakim MBIDP 2007
U Soderstrom MBIDP 2007

Text received by executive secretary Ellen Tshoganetso

Adopted revisions from CRC meeting 8

Held on 12fe08

x: \BIDP\pubs\2007\ARCAP07P.PMS

Architect's appointment:

Existing 1980 edition 2001 revision page 14 clause 4.81

4.81 Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be not less than P240.00/hour with a minimum fee of P720.00.

Proposed:

Time charges shall be in accordance with Part 5 except that the time rate for arbitrators shall be as agreed with the arbitrator, with a minimum fee equating to three-hour charge.

this is the change to be checked 21may08

a on 29apr08 approved KG 2nd SM.

original

✓ OK

KG 28 may 08

Botswana Institute of Development Professions

Ad-hoc Publications Review Committee

AT: thoughts on these items.

Members:

L Hutchings MBIDP 2005
G Vlug MBIDP 2005
D Young MBIDP-Chair 2005
B Alemarumo <Botswana Institute of Engineers 2006>
M Mogomela MBIDP 2007
A Hakim MBIDP 2007
U Soderstrom MBIDP 2007

Text received by executive secretary Ellen Tshoganetso

Submission 12fe09 by: G Vlug

PRC meeting11ag09

Consultant Appointment: "front page"

I think the wording "the client intends to...." and "the client wishes to appoint....." are too vague. What happens if afterwards the client says

"Yes, I intended to but I changed my mind?"

It should be something like "This agreement is made between A and B for the purpose of..... in which the consultant's task will be.....

Submission 31mr09 by: G Vlug

Consultant Appointment

Yame Rakhudu pointed out to me a discrepancy in the consultants appointment form. In his case there are rates given in appendix C. There is no agreement in appendix C other than the rates quoted for various consultants, partners, draftsmen etcetera.

Clause 5.3 talks about revised rates. First of all the question is what is the "independent authority"? We should say either the Government rates or PPADB or what? Secondly what does mean "in line"? Is that a general provision or does it mean "pro rata"?

the clause can be explained in a number of ways:

When rates are provided they can be adjusted or can they not be adjusted? And if they can be adjusted how can they be adjusted? When rates are provided how can they increase in long term projects? Do the provided rates take over from any adjustment?

We must come up with another description.

Draft: give comments

AGREEMENT AND SCHEDULE OF CONDITIONS OF BUILDING SUB-CONTRACT

(NOMINATED SUB-CONTRACT)

between

and

dated

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS PUBLICATIONS REVIEW COMMITTEE NOVEMBER 2008

This contract is published by the Botswana Institute of Development Professions
and endorsed by the Association of Electrical & Mechanical Contractors of Botswana
1999 edition, Revised 2008

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ARTICLES OF AGREEMENT made this day of , 2

Between

of (physical or postal address)

(hereinafter called "the Contractor") of the one part
and

of (physical or postal address)

(hereinafter called "the Sub-Contractor") of the other part.

WHEREAS this agreement is supplemental to an agreement (hereinafter referred to as "the principal contract") made the

. . . . . day of 2

between

(hereinafter called "the Employer") of the one part, and the Contractor of the other part.

AND WHEREAS the contractor desires to have executed the works of which particulars are set out in the attached schedule (hereinafter referred to as "the sub-contract works") and which form part of the works comprised in and to be executed in accordance with the principal contract (hereinafter referred to as "the contract works") and any authorised variations of the sub-contract works.

AND WHEREAS the contractor, prior to the signing hereof, has given the sub-contractor reasonable opportunity of inspecting all the provisions of the principal contract except the detailed prices of the contractor included in schedules and bill of quantities, and furthermore, whereas it is agreed that the term "the agent" where it appears in this sub-contract, unless inconsistent with the context in which it is used, shall mean the person appointed by the employer in terms of the principal contract to act as principal agent for the employer in terms of that contract as defined in 1.1 on page 5.

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NOW IT IS HEREBY AGREED AS FOLLOWS:

1. For the consideration hereinafter mentioned, the sub-contractor will execute and complete the sub-contract works upon and subject to the conditions of this sub-contract.

2. The contractor will pay the sub-contractor the sum of

(P) hereinafter referred to as "the sub-contract sum" or such other sum as shall become payable hereunder subject to and at the times and in the manner specified in the conditions of this sub-contract, and shall be payable to the sub-contractor at

3. The contractor chooses domicilium citandi et executandi for all purposes of this sub-contract at

4. The sub-contractor chooses domicilium citandi et executandi for all purposes of this sub-contract at

5. The contractor and sub-contractor choose domicilium citandi et executandi at their respective addresses where all notices or processes or both arising out of or in connection with this agreement may be validly delivered to or served on them. Either contracting party may, at any time, by notice to the other contracting party, change its domicilium citandi et executandi to some other address, provided that such new address shall be in the Republic of Botswana.

6. References in this agreement to other documents shall be to the latest edition thereof, with all amendments thereto, at the date for submission of the tenders.

7. The date of issue of any certificate referred to in this agreement shall be the date on which the certificate is signed by the party authorised in this agreement to issue such certificate and unless the contrary is proved, the date of signature shall be the date appearing on the certificate.

8. All references to days shall mean days of twenty-four (24) hours duration commencing at midnight (00:00) and which shall include non-working days unless otherwise stated.

9. The headings of clauses in this sub-contract agreement are for reference purposes only and shall not be taken into account in construing the content thereof.

10 In this agreement, unless inconsistent with the context, the words 'notice', 'notify', 'notification', 'certify', 'certification', and 'issue' shall connote an act to be carried out in writing.

11 In this agreement, unless inconsistent with the context, the masculine includes the other gender, the singular includes the plural and vice versa, and persons shall include bodies corporate.

12 Any documentation or notice sent by a party in terms of this agreement by prepaid registered post addressed to the other party at his domicilium et executandi shall be deemed to have reached the other party within seven (7) days from date of posting.

13 This sub-contract agreement constitutes the whole agreement between the parties and no variations or amendments thereto shall have any force or effect unless reduced to writing and signed by both the contractor and sub-contractor.

14 The only law applicable to this agreement is the law of the Republic of Botswana.

15 The original hereof is kept by the person named in the Schedule, but each party shall be entitled to a real copy thereof.

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16 The following documents comprise the Contract:

This agreement and schedule of conditions.

.....

.....

SIGNED BY THE CONTRACTOR

.....

IN THE PRESENCE OF (Witness Name in Block Letters)

.....

WITNESS SIGNATURE

.....

WITNESS ADDRESS

.....

SIGNED BY THE SUB-CONTRACTOR

.....

IN THE PRESENCE OF (Witness Name in Block Letters)

.....

WITNESS SIGNATURE

.....

WITNESS ADDRESS

.....

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THE AGREEMENT IS SUBJECT TO THE FOLLOWING CONDITIONS:

1 Definitions and Interpretation

1.1 "AGENT" means the architect, the quantity surveyor, engineer or other party appointed as principal agent by the employer in terms of the principal agreement and named in the sub-contract schedule.

1.2 "CERTIFICATE OF FINAL COMPLETION" means a certificate issued by the agent to the contractor in terms of the principal agreement accepting that final completion of the works has been achieved.

1.3 "CERTIFICATE OF PRACTICAL COMPLETION" means a certificate issued by the agent to the contractor in terms of the principal agreement confirming that practical completion of the works has been achieved.

1.4 "CONTRACTOR" means the contracting party so named in the schedule.

1.5 "CONTRACTOR'S INSTRUCTIONS" means instructions issued by the contractor to the sub-contractor in accordance with the contractor's authority in terms of this agreement. Instructions issued to the sub-contractor by agents of the employer shall have no authority unless authorised by the contractor.

1.6 "DAY" means a calendar day starting at 00h00 and ending at 24h00 Botswana time.

1.7 "DEFECT" means any aspect of the works which is not to the reasonable satisfaction of the agent and without limiting the generality of the aforegoing, includes the lack of an essential element of completeness of any aspect of the works.

1.8 "EMPLOYER" means the party so named in the schedule.

1.9 "FINAL COMPLETION" means the state of completion of the works where in the opinion of the agent the works are complete and free from all patent defects.

1.10 "INTEREST" means in monetary terms current bank lending prime rate plus two per cent.

1.11 "LATENT DEFECT" means a defect which a reasonable inspection of the works by the agent would not disclose.

1.12 "LATENT DEFECTS LIABILITY PERIOD" means the period which begins on the date of commencement of the construction period in terms of the principal agreement and terminates five (5) years from the date of the certificate of final completion.

1.13 "MATERIALS AND GOODS" means materials and goods delivered to the sub-contractor for inclusion in the sub-contract works whether stored on site, adjacent to the site, off site or in transit to the site but not yet part of the works.

1.14 "PATENT DEFECT" means a defect which a reasonable inspection of the works by the agent would disclose.

1.15 "PATENT DEFECTS LIABILITY PERIOD" means the period commencing on the day after the date of issue of the certificate of practical completion and terminating at midnight (00:00) ninety (90) days from that date.

1.16 "PAYMENT CERTIFICATE" means a certificate indicating the amount due and payable by the employer to the contractor in terms of the principal agreement.

1.17 "PRACTICAL COMPLETION" means the state of completion where in the opinion of the agent the works are substantially complete and can effectively be used for the purpose intended.

1.18 "PRACTICAL COMPLETION OF THE SUB-CONTRACT WORKS" means the state of completion where in the opinion of the agent the sub-contract works are substantially complete and can effectively be used for the purpose intended.

1.19 "PRINCIPAL AGREEMENT" means the agreement made between the employer and the contractor for the execution of the works.

1.20 "PROGRAMME" means the programme and provision thereto, all as agreed between contractor and sub-contractor, indicating the dates for commencement, execution, interim completion and practical completion of sub-contract works and which is intended to allow the sub-contractor to achieve practical completion of the sub-contract works so as to enable the contractor, in turn to achieve practical completion of the works within the construction period in terms of the principal agreement.

1.21 "SCHEDULE" means the schedule as attached to this agreement.

1.22 "SETTLEMENT DISCOUNT" means the discount to which the contractor is entitled when he pays the sub-contractor withing the period stipulated in this agreement, and has the same meaning as "cash discount".

1.23 "SITE" means the place so described in the schedule.

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1.24 "SUB-CONTRACT BILLS OF QUANTITIES" means the document describing and quantifying the sub-contract works priced by the sub-contractor in terms of the accepted tender or negotiated sum to reflect the value of the sub-contract works.

1.25 "SUB-CONTRACT BUDGETARY ALLOWANCE" means a sum of money provided in the sub-contract bills of quantities for work intended for execution by the sub-contractor, the extent of which is not defined.

1.26 "SUB-CONTRACT CONSTRUCTION PERIOD" means the period of time commencing and ending on the dates indicated in the schedule and shall include all extensions granted in terms of clause 10.5.

1.27 "SUB-CONTRACT DOCUMENTS" mean this sub-contract agreement, the drawings and specifications relating to the sub-contract, the sub-contract bills of quantities and such other documents as are identified in the schedule.

1.28 "SUB-CONTRACT FINAL ACCOUNT" means the document prepared by the agent in which is scheduled the valuation of all the variations to the sub-contract sum in terms of clause 13.16 resulting from contractor's instructions, reflecting the adjusted sub-contract sum which, in the opinion of the agent, is the value of the sub-contract works at final completion.

1.29 "SUB-CONTRACTOR" means the contracting party so described in the schedule.

1.30 "SUB-CONTRACTOR PRIME COST AMOUNT" means a sum of money provided in the sub-contract documents for materials and goods to be obtained from a supplier nominated by the agent and to be fixed by the sub-contractor.

1.31 "SUB-CONTRACT SUM" means the value of the sub-contract works as reflected in the sub-contract bills of quantities or other sub-contract tender documents and stated in the schedule.

1.32 "SUB-CONTRACT WORKS" means that portion of the works which is to be executed by the sub-contractor, together with the sub-contractor's temporary works as described in the schedule and detailed in the sub-contract documents and any variation thereto in terms of the sub-contract agreement.

Sub-contract works in the context of the clauses herein shall further include materials and goods as defined in clause 1.1.13 as well as materials and goods supplied free or otherwise by the employer to the sub-contractor.

1.33 "WORKS" means the works and temporary works designed by the employer, the agent or other agents of the employer as described in the schedule and detailed in the contract documents and any variations thereto in terms of the principal agreement.

Knowledge of Principal Contract

2 The sub-contractor shall at all times be entitled to reasonable opportunity of inspecting and acknowledges that he has inspected all the provisions of the principal contract and shall be deemed for the purpose of the succeeding requirements of the sub-contract to be fully informed regarding all such provisions except the detailed prices of the contractor included in schedules and bills of quantities.

Execution of the Sub-Contract works

3 The sub-contractor shall execute and complete the sub-contract works subject to and in accordance with this sub-contract in all respects in conformity with all the reasonable directions and requirements of the contractor and to the reasonable satisfaction of the contractor and the agent or, if no agent is appointed in terms of the principal contract, then the employer.

Clearance of rubbish and excess material

4 The sub-contractor shall clear away all the rubbish and excess materials resulting from his execution of the sub-contract works as the work proceeds and upon practical completion of the sub-contract works shall leave the sub-contract works clean and tidy to the reasonable satisfaction of the contractor.

Sub-Contractors liability

5 5.1 All the provisions of the principal contract requiring observance, performance or compliance on the part of the contractor shall be observed, performed and complied with by the sub-contractor in so far as they relate and apply to the sub-contract works (or any portion of the same) and are not repugnant to or inconsistent with the express provisions of this sub-contract as if all the same were severally set out herein.

5.2 The sub-contractor shall, subject to the exclusions of liability in terms of clauses 6.1.1, 6.1.2 and 6.1.3, assume full responsibility for and hereby does identify the contractor against any breach, non-observance or non-performance by the sub-contractor, his servants or agents of the said provisions of the principal contract, or any of them; provided that nothing in this sub-contract shall create any privacy of contract between the sub-contractor and the employer or any other sub-contractor.

Indemnity

6 6.1.1 The sub-contractor shall and hereby does indemnify the contractor against any liability, loss, claim or proceedings whatsoever, whether arising in common law or by statute, consequent on personal injuries to or the death of any person whomsoever arising out of or in the course of or caused by the execution of the sub-contract works unless due to any act or omission of the employer, the contractor, other sub-contractors or of their respective servants or agents.

6.1.2 The sub-contractor shall and hereby does indemnify the contractor against any liability, loss, claim

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or proceedings consequent on loss of or damage to any movable or immovable property arising out of or in the course of or caused by the execution of the sub-contract works and due to any act or omission of the sub-contractor, his servants or agents, provided that the term "property" for the purpose of this clause 5.1.2 shall exclude the sub-contract works, any temporary works and the materials and goods intended for incorporation therein.

6.1.3 Where, in terms of the principal contract, the loss or damage results from a risk insurable by a policy insuring fire, riot, strike, malicious damage and special perils as issued by a registered insurer in the Republic of Botswana and regardless of the cause of such loss or damage, the contractor does not indemnify the employer against such loss of or damage to any structure/s being altered or added to in pursuance of the principal contract or any part/s of the contract works handed to or taken over by or for the benefit of the employer before completion of the contract works as a whole or any property belonging to the employer or for which the employer is responsible contained in such structure/s or parts or against any consequence of any such loss or damage, then the sub-contractor similarly does not indemnify the contractor for any loss or damage or consequence thereof in respect of the sub-contract works forming part of the contract works.

6.1.4 The contractor hereby warrants that the indemnity against any loss or damage in the circumstances referred to in clause 6.1.3 which is provided by the employer shall be in respect not only of the contractor but also of the sub-contractor.

6.2 The sub-contractor shall insure and shall remain insured in respect of public liability, common law liability and, in particular, without limiting the generality of the foregoing, workmens compensation or any other statute in force for the time being, in respect of injuries to persons and/or property, until the issue of the principal agent certificate of completion of the contract works, for the amounts stated in the attached schedule. The public liability, common law liability, or other policies shall contain clauses indemnifying the contractor against risks arising out of the execution of the sub-contract. The provisions of this clause shall not in any way limit the liabilities assumed by the sub-contractor or the contractor or the indemnities given by them in terms of clause 6.1.1

Insurance

6.3 The sub-contractor or the contractor, as the case may be, shall provide the other one of them with proof in the form of a written statement from the insurance company concerned that the insurances required by this sub-contract have been effected.

Certificate of insurance

7.1.1 The sub-contract works (including the temporary works as defined hereafter) and the materials and goods intended for incorporation in the sub-contract works and placed on or adjacent to the site shall be at risk of the contractor as all risks of loss or damage insurable under the contract works or contractor's all insurance policy as effected in terms of the principal contract, except where the contract is for alteration and/or additions to any existing structures/s or where a part or parts of the said contract works are stated in the schedule attached to the principal contract to be required to be handed over for occupation, before completion of the contract works as a whole in which event the contractor warrants that, under the provisions of the principal contract, the employer shall carry those risks insured by a policy insuring fire, explosion, earthquake, riot, strike, malicious damage and special perils as issued by a registered insurer in the Republic of Botswana.

Work risk

7.1.2 The contractor further warrants that, under the provision of the principal contract, any existing structure/s will be entirely at the risk of the employer.

7.1.3 Notwithstanding the provisions of clause 7.1.1 neither the contractor nor the sub-contractor shall in any case be liable for any loss or damage to the said sub-contract works, materials or goods:

7.1.3.1 caused by an excepted peril as hereinafter defined;

7.1.3.2 occurring after the date of the relevant certificate of practical completion or, if earlier, the date on which the contract works are handed over or taken into use or occupation by or for the benefit of the employer in whole or part provided that, where the contract works consist of two or more physically separate structures, the provisions of this sub-clause shall apply only to the structure or structures so certified or handed over or taken into use or occupation and not the remaining contract works, temporary works, materials and goods.

7.1.4 For the purposes of clause 7.1.1 the term " all risk " includes, but is not restricted to, the risks of damage by any act or omission of the contractor or any sub-contractor or the employer or the servant or agent of any of them and the party at risk shall have no right to recover any part of such or damage from any other party by reason of any such act or omission the excepted perils are:

7.1.4.1 any consequence whether direct or indirect or proximate or remote of "war, invasion, act of foreign enemy, hostilities or warlike operations (whether war be declared or not), civil war, mutiny, military rising, insurrection, military or usurped power or martial law or state of siege or any other event or cause which determine the proclamation or maintenance of martial law or state of siege; any risk or peril only insurable in the Republic of Botswana by means of a political riot risk insurance policy issued by or on behalf of the Botswana Special Risks Insurance Association; ionizing radiations or contamination by radio-activity from any nuclear waste from the combustion of nuclear, fuel, nuclear weapons material; confiscation, nationalization or requisition or destruction or damage by or under the order of government de jure or de facto or of any public or local authority;

7.1.4.2. the design of the contract works including the sub-contract works or temporary works by the

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employer or by the employer's servants or agents;

7.1.4.3 any latent defect in any materials or goods specified by trade name in the tender documents, provided that the sub-contractor shall and hereby does cede to the contractor who in turn in accordance with the provisions of the principal contract will cede to the employer any right of action that may exist against the supplier and/or manufacturer of such materials or goods;

Insurance

7.2 The sub-contract works, materials and goods referred to in the clause 7.1 will be included in the policy of insurance effected in terms of the principal contract.
The contractor warrants that, under the provisions of the principal contract, such insurance will be taken out by the employer where the contract is for alterations and/or additions to any existing structure/s or where part/s of the contract works are stated in the schedule attached to the principal contract to be handed over for occupation before practical completion of the contract works as a whole. In every instance such insurance will be taken out by the contractor.
The policy will be kept in force until the date of the certificate of practical completion of the contract works or of the final part of the contract works, as the case may be.

Certificate of Insurance.

7.3 The party responsible for insurance is, in terms of the principal contract, required to provided the agent with proof in the form of a written statement from the insurance company concerned that the insurances required by the principal contract have been effected. The contractor shall if so requested by the sub-contractor, confirm in writing that the insurance provisions of the principal contract are in effect.

Reinstatement

7.4 The contractor warrants that, under the provision of the principal contract, the costs of reinstatement of any loss or damage not at the risk of the contractor in terms of clause 7 will be borne and paid by the employer.

7.4.1 The contractor warrants that where the employer carries the risk in terms of the principal contract, the costs of reinstatement will be measured and valued in terms of the principal contract and all payments due to the contractor and the sub-contractor will be certified by the agent in accordance with the provisions of the principal contract.

7.4.2 The contractor warrants that, under the provision of the principal contract, where the contractor carries the risk and where reinstatement takes place, any insurance monies in respect of such reinstatement will be held in trust for his benefit and through him for the benefit of the sub-contractor. Such monies will be paid out in accordance with agent certificates.

7.4.3 Where reinstatement of damage is required, the sub-contractor shall carry out and complete the sub-contract works with due diligence. The principal contract provides that a reasonable extension of time for the completion of the sub-contract works will be granted by the agent.

7.4.4 Where the contract is for alterations and/or additions to the existing structure and in the event of the whole or substantially the whole of the contract works and/or the existing structure being destroyed, then the continued employment of the contractor under the principal contract may, at the option of the employer, be determined by notice by registered post to the contractor in which event the contractor may similarly determine the employment of the sub-contractor. In such event the provisions of clauses 24.1 to 24.6 shall apply mutatis mutandis.

Responsibility for plant and other property

8 8.1 The plant and other property belonging to or provided by the sub contractor, his servants or agents shall be at the sole risk of the sub-contractor and any loss or damage to the same caused by the same shall, subject to the provisions of clause 7, be the sole responsibility of the sub-contractor who shall and hereby does indemnify the contractor against any loss, claim or proceeding in respect thereof.

8.2 The sub-contractor shall insure against any loss or claim as contemplated in clause 8.1 and shall, on request, supply the contractor with proof that such insurance has been effected.

Variations and instructions

9 9.1 If the Contractor

9.1.1 requires or authorizes in writing any variations of the sub-contract works; or

9.1.2 issues in writing to the sub-contractor any instructions of the agent, or if no agent is appointed in terms of the principal contract, any instructions of the employer in relation to the sub-contract works (whether in regard to variations or otherwise howsoever),

then the sub-contractor shall forthwith comply with and carry out the same in all respects accordingly.

9.2 Any verbal instructions, directions or explanations involving a variation given to the sub-contractor or his foreman by the contractor may be confirmed in writing by the sub-contractor to the contractor and within 7 days thereafter shall be deemed to be a variation of the sub-contract works

9.3 If compliance with written instruction, directions or explanations as aforesaid involves any variation, or if work executed by the sub-contractor consequent upon verbal instructions, directions or explanations given to the sub-contractor or his foreman by the contractor is subsequently proved and involves a variation, then such variation shall be dealt with under the clause 12 as an authorized extra or omission and the value thereof adjusted in accordance with the relevant payment provisions

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of this sub-contract.

9.4 If compliance with written instructions, directions or explanations as aforesaid involves expense or loss beyond that provided for in or reasonably contemplated by this sub-contract, then, unless the same were issued owing to some breach of this sub-contract by the sub-contractor the contractor shall avail himself of his rights under the principal contract to have the amount of such expense or loss ascertained by the agent under the principal contract or by the employer if no agent is appointed in terms of the principal contract and the amount so ascertained shall be added to the sub-contract sum and adjusted in accordance with the relevant payment provisions of this sub-contract.

10 10.1 The sub-contractor shall commence and complete the sub-contract works or the respective parts thereof in compliance with the requirements specified in the attached schedule.

Commencement and completion

10..2 The Contractor shall supply the Sub-contractor with a copy of his original works programme and advise the Sub-Contractor thereafter of any subsequent amendments thereto.

10..3 The Sub-Contractor shall commence the Sub-Contract Works on site within 7 days after receipt by him of an instruction in writing under this sub-contract from the Contractor to that effect. If the Sub-Contractor has had prior notice of the approximate on site commencement date of the Sub-Contract Works, he shall proceed with the Sub-Contract Works with due expedition. The Contractor shall inform the Sub-Contractor in writing of any change in the Contract Works affecting the time of commencement of the Sub-Contract Works and shall amend such time of commencement accordingly.

10.4 If the Sub-Contractor fails to complete the Sub-Contract Works, or any part thereof within the period specified or any extended period as hereafter provided, he shall pay to the Contractor any loss or damage suffered or incurred by the Contractor and caused by the failure of the Sub-contractor as aforesaid of which loss or damage the Contractor shall at the earliest opportunity give reasonable notice in writing to the Sub-Contractor that the same is being or has been suffered or incurred.

10..5 If the Sub-Contract Works or any section thereof be delayed and such delay:

10.5.1 Shall be caused by or be due to any of the matters specified in clause 9 or caused by or be due to any act or omission of the Contractor and/or any other sub-contractors on the Contract Works and/or his or their respective servants or agents; or

10.5.2 shall be within any of the causes for which the Contractor would be entitled to obtain an extension of the period or periods for the completion under the principal contract; or

10.5.3 shall be due to any other causes which the Agent or, if no Agent is appointed in terms of the principal contract, the Employer may under the principal contract consider sufficient;

then the Contractor shall grant a fair and reasonable extension of the said period or periods for completion of the Sub-Contract Works or each part thereof (as the case may require) and such extended period or periods shall be the period or periods for completion of the same respectively and this clause shall be read and construed accordingly; provided that where the provisions of clause 9.1 apply, no extension of the period or periods for the completion of the Sub-Contract Works shall be granted by the Contractor in respect of delays which also affect the duration of the Contract Works unless an extension has first been granted by the Agent, or if no Agent is appointed in terms of the principal agreement, then by the Employer. Any dispute in regard to such matters shall be deemed to be a dispute within the provisions of clause 30.

10.6 Immediately upon receipt of the Certificate of Practical Completion by the Contractor, he will send a copy thereof to the Sub-Contractor. The Sub-Contractor's work will be deemed to be practically complete at the day mentioned in the certificate and the Sub-Contractor will enjoy the same rights as the Contractor regarding retention and return of performance guarantee.

10.7 Immediately upon receipt of the Certificate of making Good Defects by the Contractor, he will send a copy thereof the the Sub-Contractor, who will be relieved of all further duties in terms of the Contract.

Defects and non-compliance

11 11.1 All defects, shrinkages or other faults in the Sub-Contract works, which the Contractor (whether at his own cost or not) shall be bound to make good under the principal contract, shall be made good by the Sub-Contractor within a reasonable time after the receipt by him from the Contractor of the Agent's written instruction or a copy thereof relating to the same or, if no agent is appointed in terms of the principal contract, the written instruction of the employer. Where the contractor is required to make good such defects, shrinkages or other faults but not at his own cost, then the contractor shall secure a similar benefit to the sub-contractor and shall account to the sub-contractor for any money actually received by him in respect of the same, subject to the deduction of a 5 per cent settlement discount as provided by clause 13.8.

11.2 If the contractor executes, or has executed any work to the contract works rendered necessary through the default of the sub-contractor or in consequence of defects or faults under clause 11.1, then the sub-contractor shall pay to the contractor the cost of such work. If, in lieu of executing such work, the contractor, after agreement thereto with the sub-contractor, agrees to pay or allow to the employer the value of such work or other agreed sum not exceeding the estimated cost thereof then the sub-contractor shall pay the same amount to the contractor and the contractor shall indemnify the sub-contractor against any liability arising out of the non-execution of his work.

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11.3 If the sub-contractor executes work to or in connection with the sub-contract on the instructions of the contractor or rendered necessary by reason of any act or omission of the employer or the agent or the contractor or his agent, including any other sub-contractor appointed in terms of the principal contract, then the contractor shall pay to the sub-contractor the costs of the execution of such work.

Contract sum: Valuation of Sub - Contract works of variations

12 12.1 The price of the sub-contract shall be the sum named in the attached schedule or such other sum as shall become payable by reason of any authorized variations or other adjustments in accordance with the provisions of this sub-contract.

12.2 The value of any omissions or authorized variations ordered in accordance with this sub-contract shall be valued in accordance with the principals and provisions governing the valuation of extras, omissions and variations contained in the principal contract.

12.3 The sub-contractor shall be given an opportunity of being present when the sub-contract works including omissions and variations being measured on the contract works to take such notes and measurements as he may require. Details of final measurements, in accordance with the provisions of the principal contract, shall, in so far as they concern the sub-contractor works, and upon application, be disclosed to the sub-contractor by the contractor at the latter's office.

12.4 The provisions of the principal contract governing prime cost amounts and provisional sums including in bills of quantities shall apply mutatis mutandis to any prime cost amounts and provisional sums specified as such in relation to any works, materials or goods comprised in the sub-contract.

Certificates and payments

13 13.1 The contractor will apply for certificates of payment in terms of the Principal agreement.

13.2 The amount applied for shall, at the date of the aforesaid certificate, fairly represent, on the basis of detailed information timeously supplied by the sub-contractor, the value of the sub-contract works and of any variations authorized under this sub-contract then executed and of the materials and goods delivered upon the site for use in the sub-contract works.

13.3 The contractor shall, at the commencement of the sub-contract works, advise the sub-contractor of the date in the month by which the sub-contractor is to provide such detailed information.

13.4 The contractor's application shall in respect of the sub-contract works, only include the value of the aforesaid materials and goods as and from such time as they are reasonably, properly and not prematurely brought upon the site and then only if adequately stored and protected against weather and other damages. The contractor shall embody in or annex to the said application any representations of the sub-contractor in regard to such value.

13.5 After receipt of a certificate and detailed supporting statement in accordance with the provisions of the principal contract, the contractor shall disclose to the sub-contractor upon application all details concerning the sub-contract works included in such certificate and/or statement. Any payments made to the sub-contractor in terms of this contract shall, except where otherwise herein provided, be fully in accordance with certificates and supporting detailed statements issued to the contractor by the agent, or if no agent has been appointed under the principal agreement, by the employer.

13.6 No payment shall become due to the sub-contractor by the contractor in respect of the sub-contract works or of any authorized variation thereof until the same shall have been certified by the agent to be due from the employer to the contractor in respect of such works by a certificate issued in accordance with the provisions of the principal contract and then only for the amount so certified.

13.7 If an agent is not employed under the principal contract, the provisions of clause 13.5 and 13.6 shall be deemed to be superseded by the requirement that the contractor shall, exercise his rights to obtain from the employer monthly or other agreed periodic payments in respect of such portions of the sub-contractor works as are completed from month to month, or from time to time as the case may be.

13.8 Payment of the amount so certified less the appropriate proportion of retention money (as referred to in clause 14) and less a settlement discount as recorded in the schedule shall, subject to the provisions of clause 13.10, be made to the sub-contractor by the contractor in accordance with the provisions of the principal agreement.

13.9 The contractor shall forfeit the settlement discount as aforesaid if he fails to make payment within the period stipulated in clause 13.8.

13.10 Notwithstanding anything elsewhere provided and without prejudice to any rights the sub-contractor may have under this sub-contract, the contractor shall be liable to pay the sub-contractor interest at the rate of 2 per cent greater than the minimum lending rate charged by commercial banks to their clients on the amount certified but not paid. Interest shall become due and payable and be calculated from the due date for payment by the contractor to the sub-contractor.

Disputes as to certificates

13.11 If the sub-contractor feels aggrieved by the amount certified by the agent in any certificate or by his failure to certify, then, subject to the sub-contractor giving to the contractor such indemnity and security as the contractor shall reasonably require, the contractor shall allow the sub-contractor (if he so requires) to use the contractor's name and if necessary will join with the sub-contractor as claimant in any dispute resolution proceedings by the sub-contractor in respect of the said matters complained of by the sub-contractor. Such proceedings shall be held in accordance with the relevant

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provisions of the principal contract. The provisions of this clause 13.12 shall not affect the sub-contractor's rights under clause 30.

13.12 Failure by the contractor to apply for any certificate of payment as provided in clause 13.1, or to make payment to the sub-contractor within 14 days after the due date for payment to the contractor by the employer shall entitle the sub-contractor, on giving 7 days written notice to the contractor, to cease work under this sub-contract until application shall have been made for such certificate or until such payment shall have been made to him, as the case may be. The time during which such works shall be suspended shall be regarded as an extension of time for completion within the meaning of clause 10 and shall not constitute a delay for which the sub-contractor is liable under that clause, or at all. The sub-contractor may avail himself of the provisions of this clause to suspend the execution of the sub-contract works without prejudice to his rights to determine his employment under this sub-contract in accordance with the provisions of clause 25.

Right of the Sub-Contractor to suspend execution of sub-Contract works

13.13 If after the issue of the last monthly certificate but before the issue of either the penultimate or the final certificate in accordance with the principal contract, the sub-contractor shall have completed any work upon the sub-contract works, he may request the contractor in writing to make application to the agent for certificates certifying the value of such work and the contractor shall make such application. The provisions of this clause 13.14 shall apply to such certificates as if they were certificates for payment expressly provided for in the principal contract.

Special payment

13.14 If before the issue of a final certificate to the contractor under the principal contract the agent desires to secure final payment to the sub-contractor on completion of the sub-contract works and, in accordance with and subject to the provisions of the principal contract relating to prime cost amounts and provisional sums, issues a certificate to the sub-contractor, the amount so certified by the agent as aforesaid less a settlement discount as determined by clause 13.8, shall be paid to the sub-contractor. In the absence of any express indemnity or security furnished in terms of the above provisions, the sub-contractor shall be deemed to have automatically indemnified the contractor in accordance with the requirements hereof upon the acceptance of payment as prescribed.

Final payment to the Sub-Contractor

13.15 In the event of the contractor having provided the sub-contractor, by registered post, with the details as envisaged in clause 12.3 for verification, then the sub-contractor shall confirm or set out and substantiate in writing his objection to the said amount within 30 days after being presented therewith. Should the sub-contractor fail to confirm or set out his objection to the amount within the period stipulated, he shall thereby forfeit any rights he may have to dispute the amount subsequently certified by the agent and his failure either to confirm or object to the aforesaid details within the period stipulated shall be conclusive proof of his acceptance of the said details, notwithstanding anything elsewhere to the contrary herein contained.

Verification of final account

14 14.1 While any retention money is held by the employer or invested in a joint account in the name of the employer and the contractor under the principal contract, retention money as certified by the agent shall also be held on the sub-contract works.

Retention money

14.2 Where the sub-contract sum exceeds P30 000 (Thirty Thousand Pula) and interest is payable by the employer to the contractor in terms of the main contract the contractor shall pay the sub-contractor interest earned on his portion of the retention money in accordance with the procedure prescribed in the principal contract. Payments made in terms of this clause shall not be subject to a less settlement discount in terms of clause 13.8 The contractor, on application, shall make available to the sub-contractor such information as shall be necessary to calculate his share of interest.

15 The contractor shall so far as far as he lawfully can at the request and cost of the sub-contractor obtain for him any rights or benefits of the principal contract so far as the same are applicable to the sub-contract works but not further or otherwise.

Sub-Contractor's claim to right

16 Should the sub-contractor be liable to the contractor in respect of any breach of this sub-contract or otherwise for payment of any sum to the contractor arising out of this sub-contract, the contractor shall give written notice to the sub-contractor within fourteen days of the event giving rise to the liability first arising. The sub-contractor shall remedy the cause of the liability withing a reasonable period of receiving notice, otherwise the contractor shall be entitled to set off the cost of such remedy against any monies due to the sub-contractor. The contractor shall not be entitled to set off any cost without first giving due notice as aforesaid.

Set off

17 The contractor and the agent (and authorized representative of the contractor and the agent) or, if no agent is appointed in terms of the principal contract, then the employer or his authorized representatives shall at all reasonable times have access to the sub-contract works and/or to the workshops or other places under the control of the sub-contractor where work is being prepared for the sub-contract.

Access to work

18 The sub-contractor shall not without the written consent of the contractor and the agent or, if no agent is appointed in terms of the principal contract, then the written consent of the contractor and the employer cede, assign, sub-let or delegate his obligations or part thereof under this sub-contract, provided that such consent shall not be unreasonably withheld to the prejudice of the sub-contractor and provided further that any consent given to the sub-contractor in terms of this clause shall not relieve him of the conditions as set out in clause 5.2.

Assignment or sub-letting

19 If and so far as it is so provided in the principal contract (but not otherwise) the contractor shall supply at his own cost all necessary water, lighting, electric power for hand tools where this can reasonably be made available on site, watching and attendance for the purpose of the sub-contract works. Subject as aforesaid the sub-contractor shall make all necessary provision in regard to the said matters and each of them.

Provision of water and other attendance

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Temporary workshops, sheds and telephones

20 Unless otherwise provided for in the principal contract, the sub-contractor shall provide at his own expense all temporary workshops sheds or other buildings required for his workmen at such places on the site as the contractor shall appoint and the contractor shall give to the sub-contractor all reasonable facilities for the erection of the same.
The contractor may, if it be reasonably possible, place at the disposal of the sub-contractor a room in the contract works which is to be erected under the principal contract without any charge or expense, under such conditions as may be agrees upon.
If and when a telephone is installed on the site, it shall be available for the use of the Sub-Contractor, provided that he shall be liable to pay for all his outgoing calls.

Scaffolding

21 The sub-contractor shall provide scaffolding for his own use. the sub-contractor, his employers and workmen in common with all other persons having the like right shall for the purpose of the sub-contract works (but not further or otherwise) nevertheless be entitled to use any scaffolding belonging to or provided by the contractor while it remains so erected upon the site; provided that such use as aforesaid shall be on the express condition that no warranty or other liability whatsoever on the part of the contractor or his other sub-contractor shall be created or implied in regard to the fitness, condition or suitability of the said scaffolding.

Wrongful use of or interference with property

22 The contractor and the sub-contractor respectively, and/or their respective servants or agents shall not wrongfully use or interfere with the plant, ways, scaffolding, temporary works, guards, appliances or other property respectively belonging to or provided by the other of them or be guilty of any breach or infringement of any Act of Parliament or by-law, regulation, order or rule made under the same or by any local or other public or competent authority; provided that nothing herein contained shall prejudice or limit the rights of the contractor or of the sub-contractor in the carrying out of their respective statuary or contractual duties under this sub-contract or under the principal contract.

Determination by Contractor

23 23.1 If the sub-contractor

23.1.1 without reasonable cause wholly suspends the sub-contract works before completion;

23.1.2 fails to proceed with the sub-contract works with reasonable skill, diligence and expedition;

23.1.3 refuses or to a substantial degree persistently neglects after notice in writing from the contractor to remove defective work or improper materials;

then, if so constructed by the agent or, if no agent is appointed, by the employer, the contractor shall give written and registered notice to the sub-contractor of default as specified by the agent and if such default shall continue for 14 days after such notice the contractor shall upon further instructions from the agent, determine the employment of the sub-contractor.

Insolvency of Sub-Contractor

23.2 If the sub-contractor's estate is sequestrated as insolvent, or if, being a company, it is placed in voluntary or compulsory liquidation, the contractor shall, upon instruction from the agent or, if no agent is appointed, from the employer, by written and registered notice determine the employment of the sub-contractor under the sub-contract.

Agent's or Employer's instruction

23.3 Notwithstanding anything to the contrary herein provided, nothing contained in this sub-contract shall operate to exclude or to restrict or to affect in any way the obligation of the contractor to comply with the terms and conditions of an instruction by the agent or, if no agent is appointed in terms of the principal contract, then an instruction by the employer under the principal contract, to determine the services of the sub-contractor under this sub-contract.

Liability of Contractor

23.4 If the employment of the sub-contractor under this sub-contract is determined under clause 23.1 or 23.2 the sub-contractor shall be deemed to be in breach of this sub-contract and the contractor shall only be liable for:

23.4.1 the value, less a settlement discount as recorded in the schedule of any work actually and properly executed and not paid for at the date of such determination, such value to be calculated in accordance with clause 12.

23.4.2 the value, less a settlement discount, as recorded in the schedule of any unfixed materials and goods delivered upon the site for use in the sub-contract works, the ownership in which has passed to the employer under the terms of the principal contract;

23.4.3 the value of any unfixed materials and goods delivered upon the site for use in the sub-contract works, the ownership in which has not passed to the employer in terms of the principal contract if the Contractor wishes to acquire same, failing which the Sub-contractor shall be at liberty to remove same;

and for no other sum or sums whatsoever. The contractor shall have the right to recover, or to deduct from or set off against any such amount of damage suffered and /or of loss and expense incurred by him by reason of the determination of the employment of the Sub-Contractor under this sub-contract.

Determination of Contractor's employment

24 If for any reason the contractor's employment under the principal contract is lawfully determined (whether by the Contractor or by the Employer and whether due to any default of the Contractor or otherwise), then the employment of the Sub-Contractor under this sub-contract shall thereupon also determine and the Sub-Contractor shall be entitled to be paid:

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24.1 the value, less a settlement discount as recorded in the Schedule, of the Sub-contract Works completed at the date of such determination, such value to be calculated accordand executed but not completed at the date of such determination, such value to be calculated according to clause 12;

24..3 the value, less a settlement discount as recorded in the Schedule, of any unfixed materials and goods delivered upon the site for use in the Sub-Contract works, the ownership in which has passed to the Employer in terms of the principal contract;

24.4 the cost, less a settlement discount as recorded in the Schedule, of materials or goods properly ordered and delivered for the Sub-Contract Works actually paid for by the Sub-Contractor or of which he is legally bound to take delivery;

24.5 any reasonable cost of removal from the site of his temporary buildings, plant, machinery, appliances, goods and materials;

24.6 any loss or damage caused to the Sub-Contractor owing to such determination as aforesaid, provided that the provisions of this sub-clause 24.6 shall not apply where the employment of the Contractor may, at the option of the Employer, be determined under the principal contract when a contract for alterations and/or additions to existing structure, the whole or substantially the whole of the contract works and/or the existing structure is destroyed and the employment of the Contractor is determined accordingly.

25 25.1 If the Contractor does not pay the Sub-Contractor within the period stated in clause 13.8 and thereafter for 7 days after written notice from the Sub-Contactor fails to pay the amount due in terms of this sub-contract, or if the Contractor's estate is sequestrated as insolvent or if, being a company, it is placed in voluntary or compulsory liquidation, the Sub-Contractor may, without prejudice to any other rights herein contained, by written and registered notice determine his employment under this sub-contract. The right to determine the employment of the Sub-Contractor under this sub-contract as hereby conferred may be exercised irrespective of whether or not the employment of the Contractor has been determined under the principal contract. — Determination by Sub-Contractor

25.2 Upon such determination the Sub-Contractor shall be entitled to be paid in accordance with the provisions of clauses 24.1 to 24.6, subject to the deduction of the settlement discount as recorded in the Schedule where applicable.

26 Where the Contractor has in terms of the principal contract been required to provide a performance guarantee in respect of the Sub-contract Works, then an equivalent performance guarantee, to the reasonable satisfaction of the Contractor, shall on request be submitted to the Contractor by the Sub-Contractor. — Performance guarantees

27 Notwithstanding any other remedies set down in this agreement, should the Sub-Contractor require a payment guarantee from the Contractor, then the Contractor shall be obliged to provide such a guarantee prior to the commencement of the sub-contract works. The cost, if any, for such a guarantee shall be for the account of the Sub-Contractor, provided that the terms of such a guarantee and the cost thereof shall be to the reasonable satisfaction of the Sub-Contractor. The extent of such guarantee shall be ten per cent of the sub-contract sum or such other amount as may be agreed between the parties, payable on first demand by the Sub-Contractor, but not due for payment until 28 days after any payment is due from the Contractor to the Sub-Contractor.
Should the contractor fail to provide such guarantee and/or to provide such guarantee at a reasonable cost, the Contractor shall provide the Sub-Contractor with sufficient information to enable the Sub-Contractor to obtain such a payment guarantee. — Payment guarantees

28 The Contractor shall cede to the Employer any warranty and/or guarantee furnished to him by the Sub-contractor in relation to the quality of materials, workmanship or any other factor having a bearing on the adequacy of the Sub-Contract Works, where the operative period of such warranty or guarantee extends beyond the duration of the principal contract. Written and registered notice shall forthwith be given by the Contractor to the Sub-Contractor of such cession — Cessions of guarantees

29 29.1 Any cessions granted by the Contractor prior to the signing hereof shall be recorded on the attached schedule. — Cessions

29.2 The Contractor undertakes to consult the Sub-Contractor on any further cessions which he may contemplate, and the Contractor further undertakes not to grant cessions to which the Sub-Contractor may reasonably object on grounds that such cessions after payment would leave insufficient funds according to the Contractor to enable him to pay the Sub-Contractor the amount ultimately due to the latter.

29.3 The Sub-Contractor shall not, without the prior written consent of the Contractor, which consent shall not unreasonably be withheld, cede, assign or over to any other person or persons whatsoever any rights to receive payment of monies due to him under this sub-contract.

29.4 The Sub-Contractor shall indemnify the Contractor against any loss or damage suffered as a result of having granted the consent referred to in clause 29.3 or having inadvertently made any payment to the Sub-Contractor instead of the cessionary or cessionaries.

30 30.1 Should any disagreement between the contractor and the sub-contractor arise out of this agreement, the architect may determine such disagreement by a written decision given to the contractor and the — Settlement of disputes

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sub-contractor within fourteen(14) days of a written request so to do.

Such decision shall be final and binding on the parties, unless either party within fourteen(14) days of receipt thereof disputes the same by notice to the other party and to the architect in which case the disagreement shall be deemed a dispute.

Should the architect fail to give a written decision within the said period of fourteen(14) days, then either party may within a further fourteen(14) days give notice to the other party that the disagreement be declared a dispute.

30.2 A dispute may in the first instance be decided by meditation as follows:

30.2.1 should the parties be unable to agree, in writing within fourteen (14) days of the date on which the dispute is declared, upon the use of meditation as a means of settling the dispute, or upon the person to be appointed by them as a mediator, the dispute shall be resolved by the submission thereof to arbitration.

30.2.2 should both parties agree upon mediation, such dispute shall be referred within a further period of fourteen (14) days for opinion to a mediator mutually selected by the parties. The parties shall not be entitled to be represented at such mediation by a practicing advocate or attorney.

30.2.3 the parties shall within fourteen (14) days of the appointment of the mediator or such other period as the mediator considers reasonable submit written representation to him. Thereafter the mediator shall give his opinion in writing on the matter and furnish the contractor and the sub-contractor each with a copy thereof, provided that the mediator may, in his discretion, convene a hearing of the parties and their witnesses, or may hold discussions with either or both parties, before giving his opinion, with the objective of reconciling the opposing views.

30.2.4 in giving this opinion in writing the mediator shall be deemed to be acting as an expert and not as arbitrator with the proviso that no claim for damages shall be made against him at the instance of either party for any want of care, skill or diligence in the exercise of his duties

30.2.5 the cost of the mediation and the apportionment thereof shall be determined by the mediator.

30.3 The opinion of the mediator shall be binding on the parties unless either party disputes the opinion of the mediator in writing to the other party within thirty (30) days of the furnishing to them by the mediator of his opinion, in which event the dispute shall be resolved by the submission thereof to arbitration.

30.4 Where the dispute is submitted to arbitration, then the arbitration shall be held in terms of the Arbitration Act and shall be conducted in accordance with the current Rules for the Conduct of Arbitrations published by the Association of Arbitrators (Southern Africa) and shall be heard by a sole arbitrator unless otherwise agreed by the parties.

30.5 The arbitrator shall be chosen by the sub-contractor from a panel of three (3) persons nominated by the President of the Botswana Institute of Development Professions at the written request of either party within seven(7) days of receipt of the notice advising the names of the said panel. Failing this the President of the Botswana Institution of Development Professions shall appoint the arbitrator. The appointed arbitrator's cost will be divided equally between the parties until the arbitrator decides to the contrary.

30.6 In the arbitration proceedings the rights of the parties shall not be prejudiced in any manner whatsoever by anything said or done at the mediation or by the opinion of the mediator.

30.7 The arbitrator shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice relating to all matters in dispute submitted to him and to determine all such matters in the same manner as if no such certificate, opinion, decision, requisition or notice had been issued.

30.8 Reference to either mediation or to arbitration shall not relieve either party from any liability for the due and timeous performance of his obligations in terms of this agreement.
The validity of clause 30 shall not be affected by the cancellation of this agreement in terms of clauses 23, 24 and/or 25.

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Identification particulars of 'the principal contract'	1	Date: . . . . . 2 . . . . .
	2	Employer's name: . . . . .
		address: . . . . .
	3	Contractor's name: . . . . .
		address: . . . . .
	4	Nature of the contract works: . . . . .
	5	Location of the contract works: . . . . .
	6	Name of Principal Agent: . . . . .
'Sub-Contract works'		The items of work comprised in the principal contract which it is agreed the Sub-Contractor shall execute are: . . . . .
Amount of insurance shall be:		. . . . .
Commencement and completion		The items of work comprised in this sub-contract and as enumerated above shall commence on: . . . . . and be completed by: . . . . .
Value of Sub-Contract works:		check lines again text . . . . .
Period for payment by the employer to the contractor:		. . . . .
Details of guarantees mutually agreed upon by the contracting parties:		. . . . .
Details of all cessions on the principal agreement granted prior to the signing of this contract:		. . . . .
Settlement discount for payment within 7 days after receipt of payment by contractor:		. . . . .

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http://www.bidp.bw (to go on eventually)

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January, 1999 edition, Revised 2004, 2006
Price band C

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Sent to all bmres

BIDP Contract Review Committee
BIDP CONTRACT
Comments/modifications by Ulf Söderström in green
An excellent principle format which will press for early settlement!
Thanks
Ulf

Other members still to give suggestions 14/10/08

SETTLEMENT OF DISPUTES – new Clause

Delete:

7.5 Arbitration heading and following Clause 7.50

Insert:

7.5 SETTLEMENT OF DISAGREEMENTS AND DISPUTES

7.50 Where any disagreement or dispute between the Employer or his Agents on the one hand and the Contractor or his Agents on the other hand, arising out of or concerning these Conditions cannot be resolved in accordance with Clause 7.40, the disagreement or dispute shall be submitted for resolution in the following order of precedence:

7.50.1 Amicable Negotiation between the parties and their advisors
7.50.2 Mediation between the parties and their advisors by an agreed Mediator
7.50.3 Adjudication between the parties and their advisors by an agreed Adjudicator
7.50.4 Arbitration between the parties and their advisors by an agreed Arbitrator

7.50.5 The Employer (or his Agents) or the Contractor (or his Agents) may identify and determine such a disagreement or dispute and shall by a written application declare the disagreement or dispute to the other party.

7.50.6 On submission of such a request, the disagreement or dispute with the detailed issues set out therein shall be deemed to exist between the parties.

7.50.1.1 A dispute shall be submitted to:

7.50.1.2 Amicable Negotiation in terms of 7.50.1

7.50.1.3 The parties shall within 7 (Seven) working days of the date on which the dispute was declared arrange for a meeting or series of meetings on agreed dates to discuss the resolution of the dispute.

7.50.1.4 The Claimant shall notify the detail of the dispute in writing and the Respondent shall notify the detail of any counter claim related to the dispute in writing.

7.50.1.5 The preliminary meeting shall address the definition of the areas in dispute and the parties will schedule further meetings to address the issues by reconciliation, bringing forward any pertinent supporting detail required.

7.50.1.6 The parties will agree a period of time in which the dispute will be resolved.

7.50.1.7 In the event that no agreement can re reached in full or in part within the period agreed at the preliminary meeting (maximum 30 (Thirty) working days) or any agreed (~~such~~) extended period, the outstanding issues shall be referred to mediation by a person mutually agreed by the parties in writing.

7.50.2.1 A dispute shall be submitted to:

7.50.2.2 Mediation in terms of 7.50.2

7.50.2.3 The parties shall within 15 (Fifteen) working days of the date on which the dispute was declared, arrange to agree on and appoint in writing a Mediator to resolve the dispute in a meeting or series of meetings on agreed dates to discuss the resolution of the dispute.

7.50.2.4 The parties shall meet the Mediator and decide the agreed procedures, the representation and the dates for the mediation process. The Mediator may meet the parties individually or together to address the dispute to help the parties to reach a settlement.

7.50.2.5 The parties will agree a period of time in which the dispute will be resolved. In the event that no agreement can be reached in full or in part within 30 (Thirty) working days or any agreed (~~such~~) extended period, the outstanding issues shall be referred to adjudication by a person mutually agreed by the parties in writing.

7.50.2.6 Where any part or all of the dispute shall be agreed by the parties, the settlement shall be recorded by the Mediator and reduced to writing for the record upon which when signed and witnessed by the parties, shall become final and binding on the parties unless either disputes the record in writing within 7 (seven) calendar days.

7.50.2.7 The Mediation shall not be binding on the parties, unless so agreed, if a remainder or the entire dispute remains unresolved. The minutes of the meetings may be called ~~by~~ for use by ~~but~~ an Adjudicator or Arbitrator if agreed by the parties when duly appointed.

7.50.3.1 A dispute shall be submitted to:

7.50.3.2 Adjudication in terms of 7.50.3

7.50.3.3 The parties shall within 15 (Fifteen) working days of the date on which the continued dispute was declared arrange to agree on and appoint in writing an Adjudicator to resolve the dispute for a meeting or series of meetings on agreed dates to discuss the resolution of the dispute.

7.50.3.4 The parties shall meet the Adjudicator and decide the agreed procedures, the representation and the dates for the mediation process. The Adjudicator may meet the parties individually or together to address the dispute to help the parties to reach a settlement.

7.50.3.5 The parties will agree a period of time in which the dispute will be resolved. In the event that no agreement can be reached in full or in part within 30 (Thirty) working days or any agreed (such) extended period, the outstanding issues shall be referred to adjudication by a person mutually agreed by the parties in writing.

7.50.3.6 Where any part or all the dispute shall be agreed by the parties, the settlement shall be recorded by the Adjudicator and reduced to writing for the record upon which when signed and witnessed

by the parties, shall become final and binding on the parties unless either disputes the record in writing within 7 (Seven) days.

7.50.3.7 Arbitration continues as in Clauses 7.50.4.3 to 7.50.4.8

7.50.3.8 ~~The parties shall within 15 (Fifteen) working days of the date on which the continued dispute was declared, arrange to agree on and appoint in writing, an Arbitrator Adjudicator to resolve the dispute in a meeting or series of meetings on agreed dates to discuss the resolution of the dispute.~~

7.50.3.8~~The parties shall meet the Arbitrator Adjudicator and decide the agreed procedures, the representation and the dates for the arbitration mediation process. The Arbitrator Adjudicator may meet the parties individually or together to address the dispute to help the parties to reach a settlement.~~

7.50.3.9 ~~The parties will agree a period of time in which the dispute will be resolved.~~

~~7.50.3.10 In the event that no agreement can be reached in full or in part within 30 (Thirty) working days or any such extended period, the outstanding issues shall be referred to adjudication by a person mutually agreed by the parties in writing.~~

7.50.4.1. A dispute shall be submitted to:

7.50.4.2 Arbitration in terms of 7.50.4

7.50.4.3 The parties shall within 15 (Fifteen) working days of the date on which the dispute was declared, arrange to agree on and appoint in writing an Arbitrator to resolve the dispute, where no Arbitrator is stated in the Contract Documents.

7.50.4.4 Where the parties make no such appointment, the Arbitrator shall be appointed by the President of the Botswana Institute of Development Professions.

7.50.4.5 The Arbitrator shall decide the agreed procedures, the representation and the dates for the arbitration process.

7.50.4.6 The Arbitrator shall have the powers to open or revise any certificate, opinion, decision, requisition or notice relating to such dispute as if no such certificate, opinion, decision, requisition or notice had been issued or given.

7.50.4.7 The Arbitrator shall be obliged to provide a reasoned award, unless otherwise agreed by the parties.

7.50.4.8 The cancellation of this agreement shall not affect the validity of clause 7.5

Botswana Institute of Development Professions

Ad-hoc Publications Review Committee

Members:

L Hutchings MBIDP 2005
G Vlug MBIDP 2005
D Young MBIDP-Chair 2005
B Alemarumo <Botswana Institute of Engineers 2006>
M Mogomela MBIDP 2007
A Hakim MBIDP 2007
U Soderstrom MBIDP 2007

Text received by executive secretary Ellen Tshoganetso

Submission 09oc08 by: D Young

Consultant Appointment

Existing 2000 edition 2005 revision page 5 Appendix C

APPENDIX C

1) Payment to the Consultant

.....

2) Stage payments

.....

3) Revision of rates

.....

4) Expenses

.....

5) Disbursements

EMAIL TO All committee
ON DATE 10/10/08
BY

6) Interest on outstanding fees

Proposed:

APPENDIX C

1) Payment to the Consultant
(if none stated will be on a time basis) other methods calculated

If not otherwise specified in this document, payment is to (architects appt)

2) Stage payments

3) Revision of rates

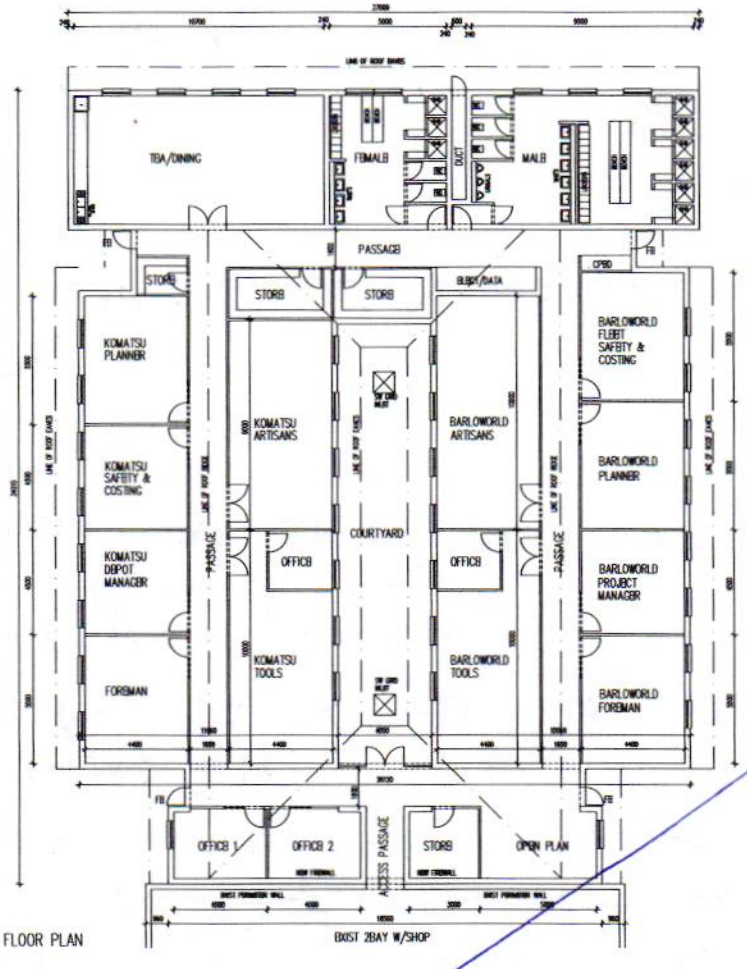
4) Expenses

5) Disbursements

6) Interest on outstanding fees If not otherwise specified ... prime + 2%

7) Indemnity Insurance (limit ~~P500,000.00~~ If not ... 1 million)

def.



FLOOR PLAN

BOST 2BAY W/SHOP

TITLE	DRG No	DETAIL
REFERENCES	Issued for Approval	REVISIONS

DAY 1

0915 REGISTRATION AND COFFEE
0945 INTRODUCTION

The President IAZ, Mr Graham R Price,
will introduce the President of the CAA

10.00 SESSION 1 CHAIRMAN

Current Changes in Architectural Practice John Wells-Thorpe

a)	Code Relaxations	Forms of practice; Simultaneous practice.
b) and	Monopolies Commission Government Attitudes:	Fee tendering; Client conditions; Restrictive practices.
c)	Developments in the Law:	Warranty; Professional liability; Methods of procurement.
d)	European Community and Quality Assurance	

Questions and Discussion

11.15 COFFEE

11.30 SESSION 2 CHAIRMAN:

The Architect as Contract Administrator. Stanley Cox

Architect's duty concerning supply of information
Issuing Instructions - concerning progress and programme-dealing with claims - certificates at completion - certificates of payment.

Questions and Discussion

12.45 LUNCH

14.00 SESSION 3 CHAIRMAN:

Subcontractors and Suppliers. Stanley Cox

Nominated and others ways of appointing subcontractors-tender documents and fair procedures -responsibility for workmanship and materials - programme and integration of specialist information -delays caused by subcontractors - determination and problems of replacement subcontractors.

Questions and Discussion.

15.15 TEA

DATE: 03-12-92 04:25 pm
FROM: David Young, Architect FB37118L
TO: C Lebone
CC:
SUBJECT: (A0Kp)56 SADCC Union of Architects
ATTACH:

Attention: Mr Chris Lebone

Eva Gurney proposes a Council meeting in Gaborone on 7th/10th April to do necessary work prior to Windhoek assembly. Eva says she can drive you to Johannesburg for Windhoek flight after the meeting.

Eva has been unable to reach you by phone.

Yours faithfully,

David Young
4th March, 1992

cc: SADCC UA Secretary
File

Draft Programme Ralph Erskine Seminar/Workshop 5–10/7 1992
==========

Sun 5/7 at 1600:

Introduction/presentation of RE and his works in the UB Exhibition Hall for specially invited guests (eg SADCC Union Arch/Plann, private consulting Arch/Plann in Botswana, Council Arch/Plann, Govt Arch/Plann, BHC Consult's Dept, Univ students).

Welcome to Guests (Res Rep/SwP)

Opening Speech (President SADCC UA)

Cocktail

Presentation by Ralph Erskine

==========

Workshop/seminar on "Creativeness/Design and Development Control"

1 Mon 6/7

Layout: Early mornings – presentation of issues
Late mornings/afternoons – Studio Work, c 6 teams, each guided by experienced Arch/Planners, designing a local centre with mixed land-uses, within the context of the new Dev Control Code.

800 –1000	"Architecture and Urban Design for Better Living" – Ralph Erskine
1000–1030	Tea
1030–1230	"The New Development Control Code for Botswana" – Nils Viking
1230–1400	Lunch at UB
1400–1700	Studio Work – Presentation of task (Gab West Block 8 Local Centre) RE + assistants available to advise on getting started, major design components, mixed uses etc

2 Tue 7/7

800 –1000	"Architecture and Planning in Botswana" – AC Mosha
1000–1030	Tea
1030–1230	Studio Work – RE and assist available. RE to advise on upcoming design problems.
1230–1400	Lunch at UB
1400–1700	Studio Work Cont

3 Wed 8/7

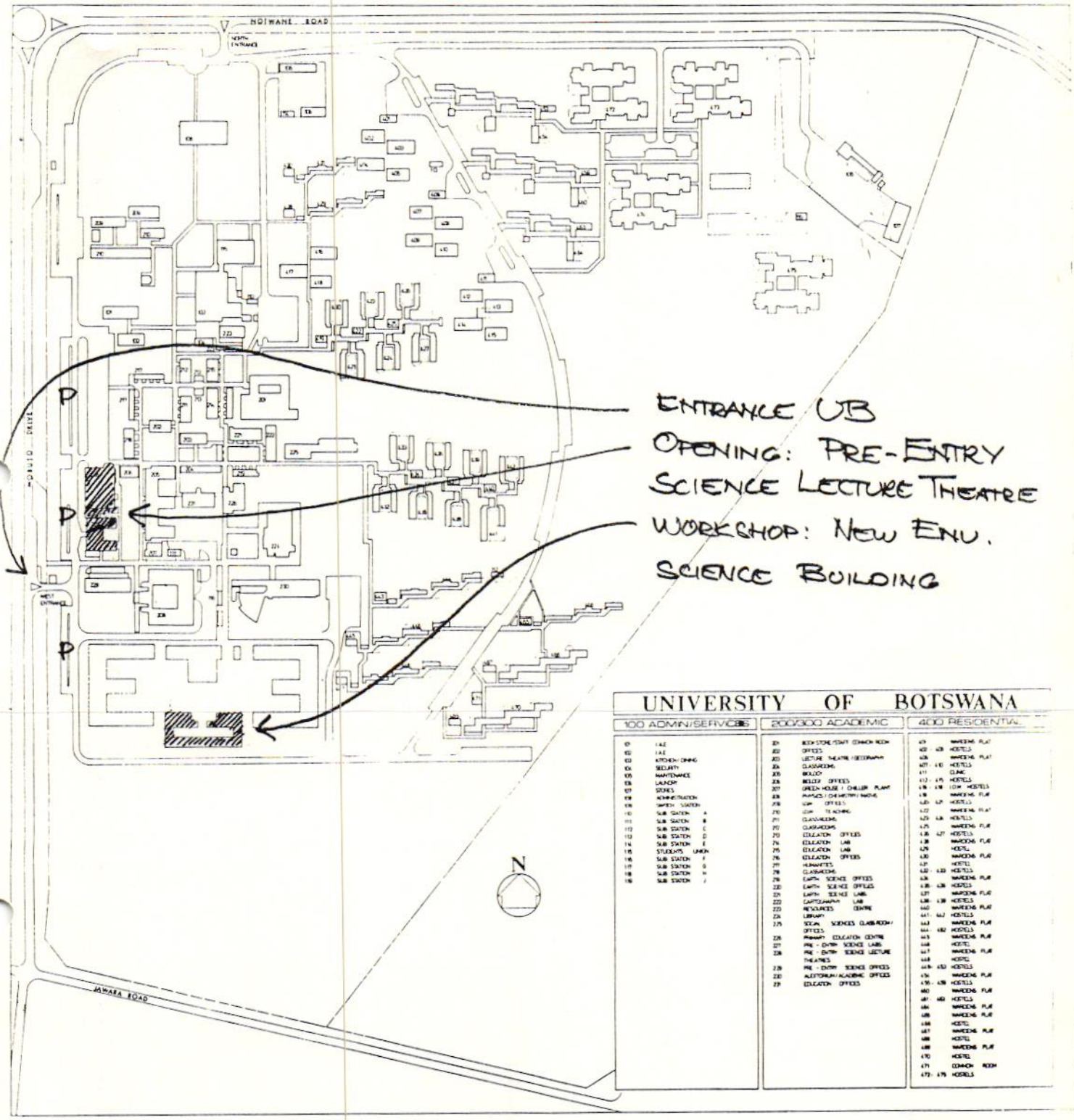
8oo –10oo	"The Role of Design Professions in the Society" – Paul Kotze
10oo–103o	Tea
103o–123o	Studio Work – RE + assist available
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

4 Thu 9/7

8oo –10oo	Studio Work – RE + assist available
10oo–103o	Tea
103o–123o	Studio Work Cont
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

5 Fri 10/7

8oo –10oo	Final touches to Studio Projects
10oo–103o	Tea
103o–123o	Presentations of Studio Works
123o–14oo	Lunch at UB
14oo–163o	Presentation Cont
163o–17oo	Winding Up – RE/Assistants
19oo	Reception UB
	Closing Remarks (Dir/DTRP)



swedeplan
P.O. BOX 2182
TEL. 373839
FAX: 373473
GABORONE

from:
SADCC Union of Architects
Private Bag 00120
Gaborone, Botswana

1992 Ralph Erskine visit to Gaborone

Swedeplan Botswana has arranged for a one-week workshop on a town planning/ urban design project, under the guidance of Ralph Erskine, in Gaborone from 5th July to 10th July, 1992. The workshop is open to architecture & planning students (subject to limits on numbers in the event of overwhelming response). We aim to include a related but shorter workshop for architects in practice, on 6th and 7th July, following the opening at 4pm on Sunday 5th July.

If there is interest in attending, please contact Dukie Richardson at phone (+267) 352450, fax (+267) 373533 or David Young at phone+fax (+267) 371181 for further information.

A copy of the draft programme is included for information.

David Young
pp Secretary, SADCC UA

cc: Swedeplan
D Richardson
E Gurney
C Lebona
J Wasserfall
BIDP ATPI
IAZ
ZIA
AAT
MIA
Angolan Institute
NIA
LAESA
Schools: Kitwe, Cape Town, UN Durban, Wits, Pretoria, UPE
AUA
CAA

Draft Programme Ralph Erskine Seminar/Workshop 5–10/7 1992

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1630–1700	Winding Up – RE/Assistants
1900	Reception UB
	Closing Remarks (Dir/DTRP)

UNESCO

XI INTERNATIONAL UIA/UNESCO SEMINAR

In Chania/Creta, Greece

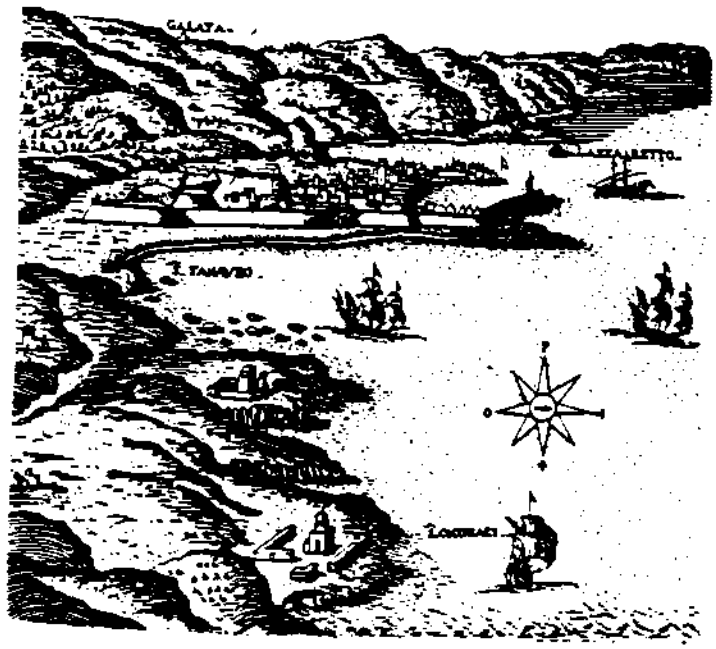
Planning and Design of Higher Educational Facilities

Working Document

D. Mooij, the Netherlands
august 1992

ΤΕΧΝΙΚΟ ΕΠΙΜΕΛΗΤΗΡΙΟ ΕΛΛΑΔΑΣ
ΕΛΛΗΝΙΚΟ ΤΜΗΜΑ UIA - ΔΙΕΘΝΟΥΣ ΕΝΩΣΗΣ ΑΡΧΙΤΕΚΤΟΝΩΝ
UIA - ΟΜΑΔΑ ΕΡΓΑΣΙΑΣ «ΧΩΡΟΙ ΕΚΠΑΙΔΕΥΣΗΣ & ΠΟΛΙΤΙΣΜΟΥ» - UNESCO

TECHNICAL CHAMBER OF GREECE
HELLENIC SECTION OF UIA (INTERNATIONAL UNION OF ARCHITECTS)
UIA WORKING GROUP "EDUCATIONAL AND CULTURAL SPACES" - UNESCO



XI ΔΙΕΘΝΕΣ ΣΕΜΙΝΑΡΙΟ
«ΠΡΟΓΡΑΜΜΑΤΙΣΜΟΣ ΚΑΙ ΣΧΕΔΙΑΣΜΟΣ ΕΓΚΑΤΑΣΤΑΣΕΩΝ ΑΝΩΤΑΤΗΣ ΕΚΠΑΙΔΕΥΣΗΣ»

ΧΑΝΙΑ, 21-25.9.1992

XI INTERNATIONAL SEMINAR
"PLANNING AND DESIGN OF HIGHER EDUCATIONAL FACILITIES"

CHANIA - CRETE, 21-25.9.1992

1. General Introduction

The International Union of Architects (UIA) has established a number of working groups which pursue issues relating to the design and construction of various building types.

Since the establishment of the UIA Working Group "Educational and Cultural Spaces", the main aim of it has been this specific one of the Union:

"exchange of knowledge and experience between different countries".

During the past 35 years the WG has followed the evolution of school and society and has changed significally its name: Commision on "School Constructions" at the beginning, Working Group on "Educational Spaces" during the seventies and, recently, Working Group on "Educational and Cultural Spaces.
The UIA working group "Educational and Cultural Spaces" has focussed its attention both at educational and cultural spaces themselves and more broadly at their link with the changing character of the societies in which they are located.

The questions which have been posed and discussed were new questions for which new answers were every time needed.
They are questions of planning, design, construction and of functioning.
The principal activity of the Working Group during the past decades has been the organization of 10 International Seminars with the support of the UNESCO and the host country. For the XI Seminar The Technical Chamber of Commerce of Greece, the Hellenic Section of UIA is co-organizer.

The 10 International Seminars were the following:

1.	1970, Vienna	"The Social role of the School".
2.	1974, Berlin	"Flexibility of buildings for education".
3.	1976, Athens	"Integration of educational and community facilities".
4.	1978, Dakar	"Self-Reliance on educational facilities".
5.	1979, Washington	"Community participation on comprehensive social facilities".
6.	1983, Bangkok	"Educational facilities in the city: the challenge in Asia and the Pacific".
7.	1985, Paris	"The wider use of educational spaces".
8.	1988, Budapest	"international information network on educational buildings and furniture".

In 1972 a decision was taken to integrate the regional school building programme into the UNESCO Regional Offices for Education. Thus, the conditions were created in the regions and at headquarters for interdisciplinary work.

Since 1962 UNESCO has carried out a significant number of studies on the design of buildings and furniture which remain an important source of fundamental data.

The four programme actions of UNESCO's educational building programme are:

I. Exchange of Information and the publication of Research Studies.
II. Technical cooperation with Member States.
III. Training of national specialists.
IV. Pilot projects.

UNESCO has become aware, over the years, of the need for a continuous and growing exchange of information in the field of educational buildings and furniture. As a part of programme action I. above, UNESCO supports every two years the organization of an international seminar by the Working Group on Educational and Cultural Spaces of the UIA to discuss basic concepts in the planning, design and use of educational buildings.

2. Planning and Design of Higher Educational Facilities.

The subject of the XI Seminar of UIA/UNESCO: "Planning and Design of Higher Educational Facilities" covers a very wide range of aspects. Looking back at the subjects of the ten previous Seminars, it is striking, that these are all relevant for Higher Educational Facilities. In fact this is not surprising as changes in society should be reflected in Higher Educational Facilities especially. The facilities ar more than only a factory for learning and research: the fact that young people are being trained to be skilled members of society has to find its expression in the architecture and landscaping of the built environment and visual arts intergrated in it. Because this physical environment can shape our sensibilities, we can use it to enhance the quality of life. Besides, Higher Educational Facilities are one of the most complex building types. They have to accommodate functionally very different and complex activities, varying from office activities and small group teaching to very complex and sometimes even environmentally hazardous research and laboratory teaching activities.
These facilities require relatively high investment and running costs; efficiency and effectiveness requirements result in high demands on planning, design and facility management.

The wide range of aspects that are covered by the subject of the XI Seminar makes a certain limitation and structuring necessary in line with the objectives of the Seminar.

In this regard it is proposed to focus the XI Seminar on recent and expected future changes relevant to Higher Educational Facilities. As a point of departure for these changes, three major UNESCO publications on Higher Educational Facilities from the seventies are taken:

1. The design of polytechnic institute buildings, 1972
2. Planning Buildings and Facilities for Higher Education, 1975
3. Planning Standards for Higher Educational Facilities, 1979.

The three publications give a good picture from "the state of the art" with regard to Higher Educational Facilities planning, programming, design and management in the seventies. The decades before are marked by growth of Higher Educational Systems, however, so that the construction of new buildings was the major issue.

5.2. Framework for the positioning of subjects of change.

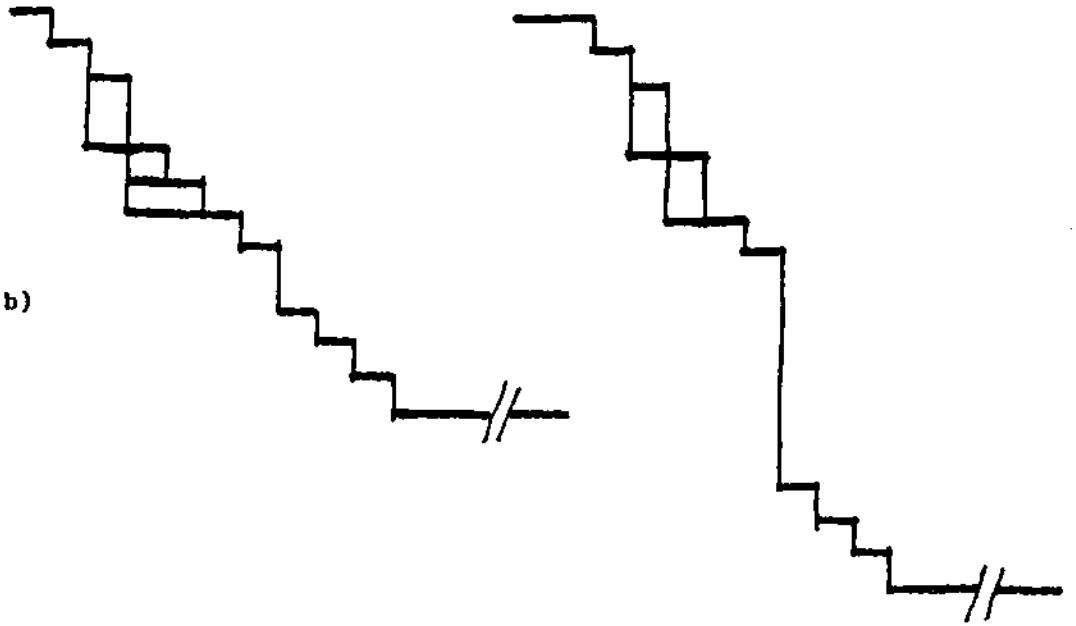
I. National level
1. Policymaking
2. Educational Planning
3. Facility Planning (macro)

II. Institutional level
4. Policymaking
5. Academic Planning
6. Facility Planning (micro)
7. Project definition

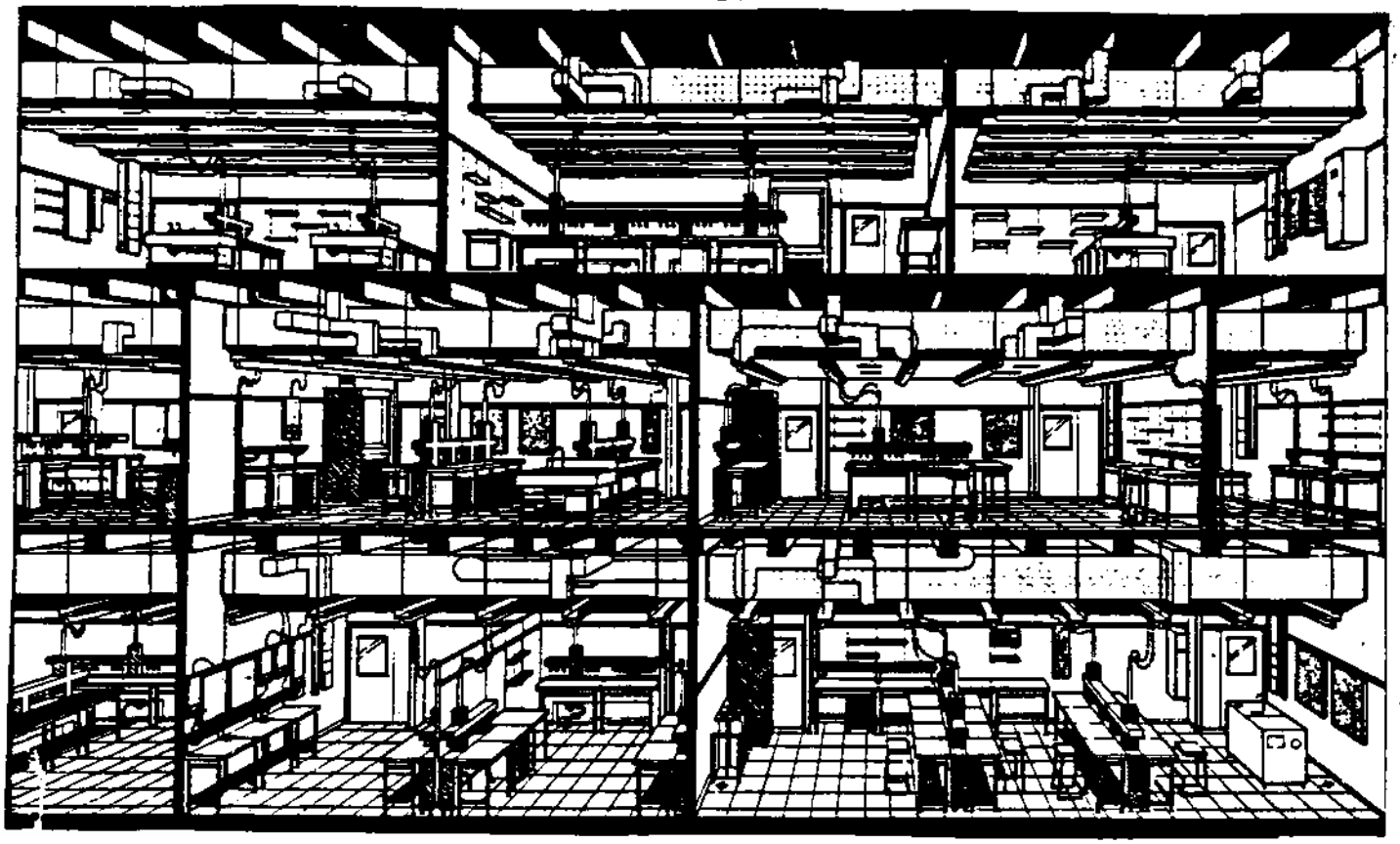
III. Level of organisational unit, project, building
8. Brief development *(a and b)
9. Design *(a and b)
10. Implementation *(a and b)
11. Use/running

12. Briefdevelopment *(b)
13. Design *(b)
14. Implementation *(b)
15. Use/running

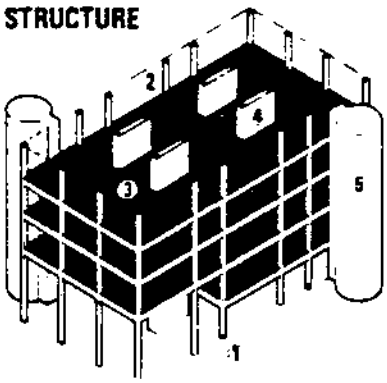
x
x
x
x



*) a. Primairy Brief, Design and Implementation.
b. Secondary Brief, Design and Implementation.
(see publication nr. 2).



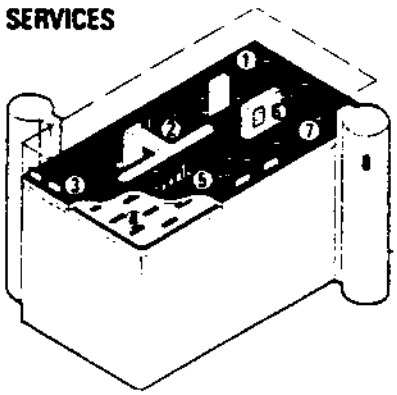
STRUCTURE



CHANGE PREDICTION
never
60 yr + fixed

1 foundations
2 columns
3 floors
4 vertical ducts
5 vertical circulation

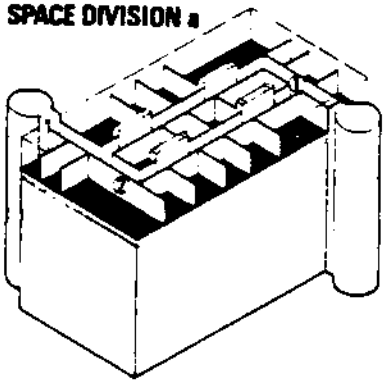
SERVICES



CHANGE PREDICTION
seldom
20yr +; fixed

1 drainage – riser
2 ventilation – branch
3 heating – outlet
4 lighting – outlet
5 water – riser
6 electricity – riser
7 floor hole
8 sanitation

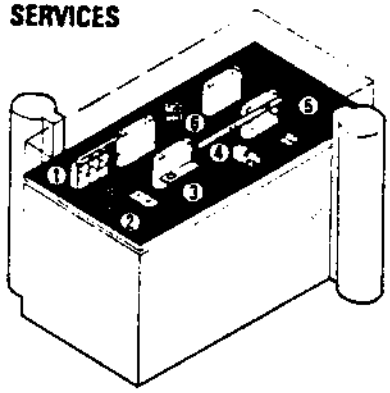
SPACE DIVISION a



CHANGE PREDICTION
infrequent
7–20yrs

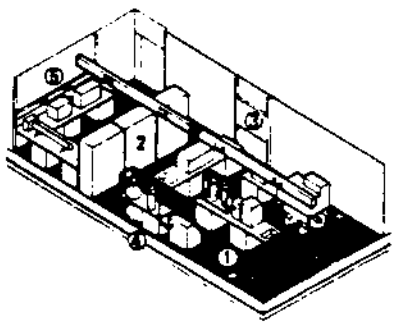
1 corridors
2 partitions

SERVICES



CHANGE PREDICTION
occasional
3–7yrs

1 fume extract – duct
2 drainage – floor hole
3 water – spine/duct
4 cooling water – beam
5 electricity – slung wire
6 vacuum – mobile pack



CHANGE PREDICTION
frequent / often 0–3yrs

1 bench
2 storage
3 display
4 rig
5 work zone

EQUIPMENT LOCATION b

Flexibility and Changepredictious

7. Developments in the Netherlands.

Though many important and interesting developments with regard to higher educational facilities have taken place recently and are expected shortly, the most striking ones have to do with changes in the educational policy, in the financing system, in the efficiency requirements and in the relations between the national government (Ministry of Education) and the institution (decentralization of authority and responsibilities).
In fact the developments in the nineties are completely focussed on decentralization, so that much attention will be given to this subject.

I. The eighties.

The policy changes for the Universities were focussed on changes in the educational structure, so that the average length of the study diminished.

This combined with dropping birthrates in the past, led to an expected decrease in studentnumbers in spite of the increasing participation of women. An increase of efficiency in the educational system was stimulated by a redistribution of tasks between universities resulting in a certain concentration of these tasks.
Almost all Teaching Hospitals were completely newly constructed.
In Higher Professional Education no shrinking is expected, on the contrary, a steady growth is going on.
The most important development is the almost total renewal of the educational system: fusion and concentration of institutions (from 400 to 75 at present) is still going on, a redistribution of teachingtasks and changes in teaching methods, financing, the institutional government and so on have taken place.
With regard to the costs of facilities especially the relatively strong growth of the recurrent costs required attention.
With regard to the external relationships the strengthening of the coöperation with industry and commerce became more and more relevant. For new and existing facilities the development of legislation with regard to environmental issues and labour circumstances pose new requirements; especially in laboratory buildings that are a few decades old these new requirements can hardly be accomodated.

- Procedures for investmentprojects are time-consuming.
- The investmentbudget is vulnerable.
- Little flexibility in financingpossibilities.
- Little incentives with regard to selling buildings and grounds.

Pro's

- Easy facility coördination possibilities between institutions.
- Limited financingcosts (interest).
- Financial flexibility for the Ministry of Education.
- Policy-objectives can be stimulated through investments.
- Professional inputs can increase quality and decrease risks.

Situation aimed at.

1. Financing of all investments should be as a part of the lumpsum.
2. Selling the economical property of the real estate to the institution.
3. Allow institutions to borrow large sums money.

The primary objective of the new situation is to increase efficiency by increasing reponsibilities and authority of the institution. The slimmed down Ministry of Education will focus its attention to policymatters and not anymore to managementmatters. This requires investments to be part of the lumpsum and the transfer of the economical property of real estate to the institution.

Secondary objectives of the new situation are

- a simple determination of the lumpsum, not taking into account the actual situation with regard to facilities;
- payment of the value of real estate to the state.

These objectives require:

- selling of the economical property of real estate to the institution. The method of establishing the value will ensure an equalisation of the different starting positions with regard to facilities. Good facilities have a high price, so that little money is left for new investments; bad facilities have a low price, so that enough money is left for the necessary new investments. In order to keep the system simple one price per nett sqm. is used with a deduction according to the age of the building; for a 30 year old building the price is nil. Of course the system is in fact much more complicated, as a number of specific situations has to be taken into account.

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Introduction

Those who plan new facilities for higher education are frequently doing so for the first and only time. It is sometimes a very lonesome adventure as the planner tries to discover what the space requirements will be for each of the myriad of activities which take place in a higher-education institution: teaching, research, housing, study, recreation, etc. And each one of these makes further demands for spaces to accommodate supporting services.

The frequent reaction of the planner is to begin searching for standards or norms which have been established elsewhere and which could be directly applied to his problem. Unfortunately, higher-education institutions tend to be unique. They vary in site, in course offerings, in the academic level of instruction given, in the number of contact hours per week of both students and staff. Some institutions are primarily residential while some serve students who live at home or work part time. Research may be the intellectual cornerstone of one university while in another it is discouraged as being a costly diversion from the main mission of teaching.

Some countries have succeeded in establishing sets of standards which can be applied to groups of similar institutions and these are much sought after by the inexperienced planner. However, in practice, these standards are often difficult to apply directly because they provide too much or too little information for his immediate needs. The issue may be to determine an approximate total area for an engineering faculty, yet the standards for engineering faculties that are most easily obtained concern layouts of individual laboratories.

In the more industrially advanced countries, it is relatively easier to find other people or institutions which have recently been through a planning or construction programme than in less developed countries where the higher-education institution under consideration is usually among the first to be planned around that country's needs.

The earlier Unesco publication, *Planning Buildings and Facilities for Higher Education*, deals exclusively with the planning process, endeavouring to help the inexperienced planner understand the various cycles in the process of planning higher-education institutions and realize these plans. The material in the present work is a supplement to the previous publication and is presented in a way which will overcome, to the maximum extent possible, the problems referred to in the earlier paragraphs.

A substantial amount of thought has been given to presenting technical information in such a way that it might be considered to be comparable. However, in going through the great amount of material available, it became apparent that this could be done without introducing unacceptable distortions in the data. We have chosen therefore to merely share with the readers some of the clearest and most useful material that has come to our attention. We present it here in the same form as it was found in the original sources. Some minor editing has been made to ensure that the material is self-explanatory and conforms to Unesco's practice. Also, all dimensions given in feet and inches have been converted into metric measures. We have tried to include information from around the world. We wish to make it clear to the users of this book that we have not attempted to establish international standards for higher-education facilities. Rather, this material should be used as a reference against which to check the planning standards that have been derived around the specific needs of a particular institution. The user will find that there are substantial differences (sometimes from three to four times) between the standards used by two different countries. If the user finds it necessary to understand more fully these differences, he should obtain the complete works (for which we give the references) or contact the national agencies concerned.

The user may also find that some of the materials included date back ten or more years. This has been deliberately done because we feel that the information therein is of particular value to the intended users of this publication. Planning standards tend to evolve in the country which developed them as do the social, academic and economic situations that led to the creation of

UNESCO : HIGHER EDUCATION FACILITIES DATA SHEET

PREPARED BY E. Almonte — DATE 1977

TITLE Recommendations made by U.G.C. for different types of buildings — PAGE Appx I

SOURCE — DATE 1076

INSTITUTION University Grants Commission - India

SUBJECT Recommendations for the construction of Students Hostels.

ROOM TYPE: SLEEP/STUDY WITHOUT TOILET/BATH - TOILET/BATH (910, 919)

SUMMARY OF IMPORTANT RECOMMENDATIONS REGARDING CONSTRUCTION OF HOSTELS.

2.2 Living rooms are to be arranged in such a way that they get the maximum benefit of the prevailing breeze and avoid as much as possible of western exposure.

2.4.6 An area of 85-90 sq.ft. (7.9 to 8.4 m2) for single student room, 75-80 sq. ft. (7.0 to 7.4 m2) per student for two students and 70-80 sq. ft. (6.5 to 7.0 m2) per student for a three student room would be adequate for an undergraduate hostel. For post-graduate and research students the room area should not exceed 100 sq. ft. (9.3 m2) per student.

2.6.2 Dining area should be designed to accommodate not more than two-third strength of the hostel at the rate of 10-12 sq. ft. (0.9 to 1.1 m2) per person and kitchen-pantry area at the rate of 5-7 sq. ft. (0.5 to 0.7 m2) per student.

2.6.6 The following provision for toilet facilities are recommended :

(i) W.C.	....	One per 10 men students / 8 women students
(ii) Urinals	....	One per 8 students (new)
(iii) Wash basins	....	One per 8 students
(iv) Bath with a shower		One per 8 men students / 6 women students

2.7.1 Area for common room may be 500-650 sq.ft. (46.5 to 60.4 m2)

2.11.3 It should be the endeavour of architects and planners to plan the hostel in such a way that the built up area per student is generally not more that 2.3 to 2.5 the floor area per student within the room.

3.2.2 Increase in the working stress of concrete alone cannot lead to economy unless the working stress in steel is also corespondingly increased.

3.2.3 Economy in reinforced concrete framework depend to some extent on the judicious choice of the concrete mix for the various components. It is advantageous to use mix 1: $1\frac{1}{2}$: 3 or

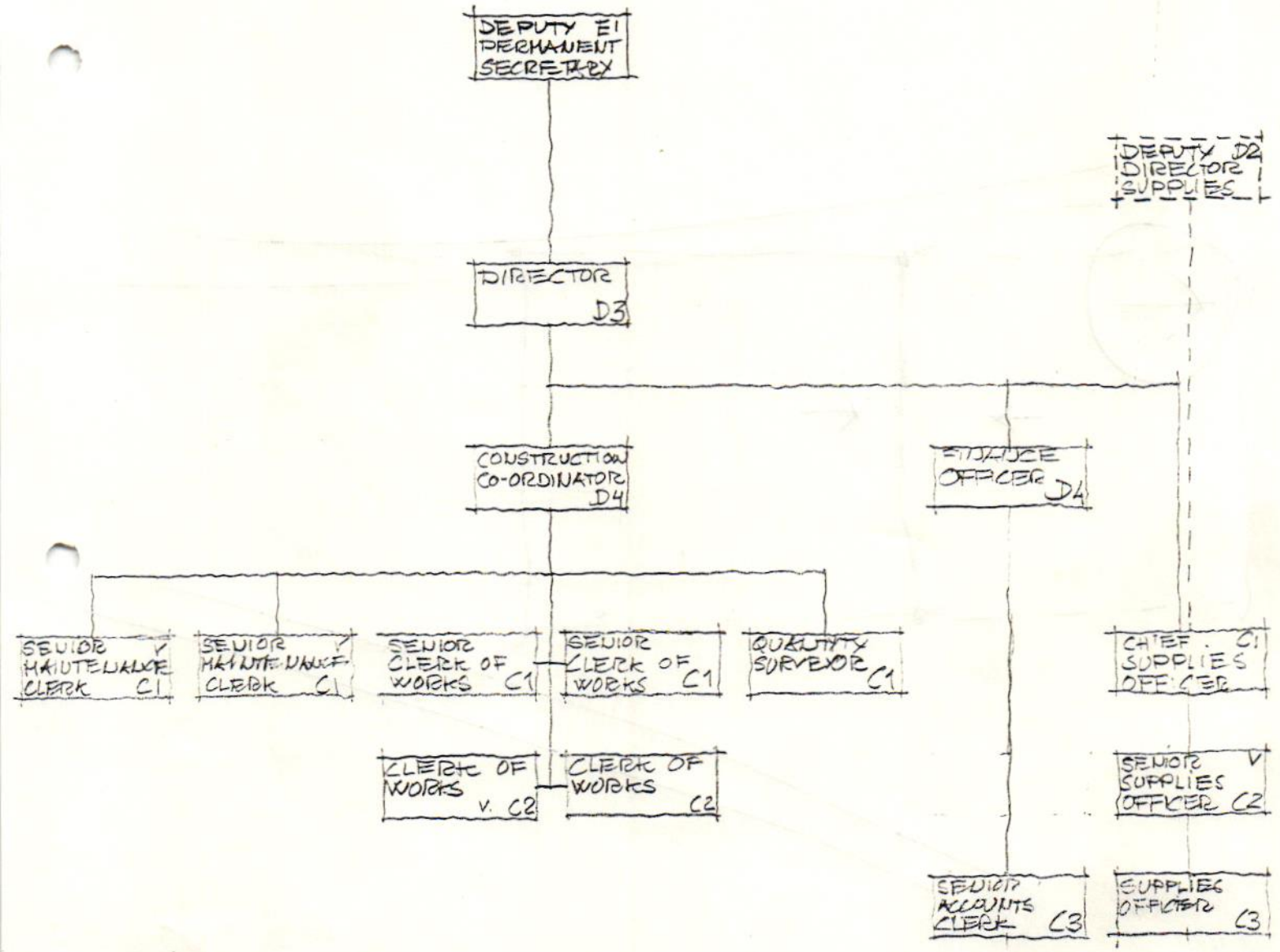
.../..

SABCHA file

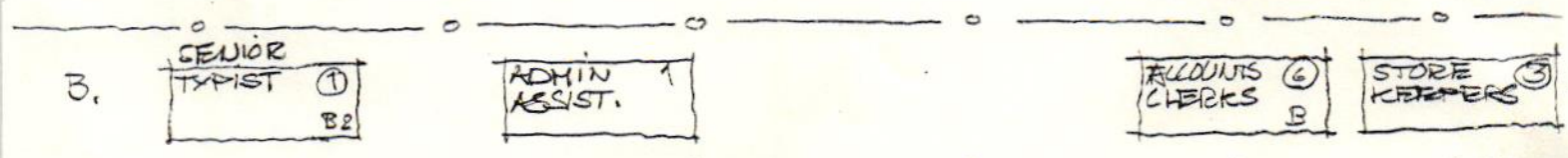
Dept

Structure.

A.



B.



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	LABOURERS	20
	MESSENGERS	1

Programme

Sunday - Apr. 18: Afternoon Arrival
18.00 - Registration

Monday - Apr. 19:
09.00-10.00 - Opening of the Seminar
Addressed by:
- Arch. David Reznik
  Chairman of the Israel Inst. of
  Architects & Town Planners
- Dr. Gideon Ben Dror, Sen.Ad., Director
  of the Ministry of Education & Culture.
- Arch. Jannis Michail, Sec. of the U.I.A. Working
  Group "Educational and Cultural Spaces".

10.00-10.15 - Coffee Break.
10.15-13.30 - Touring Jerusalem and Vicinity.
13.30-14.30 - Lunch.
14.30-16.00 - Presentation of the Key Papers.
16.00-16.15 - Coffee Break.
16.15-18.30 - Presentation of Papers.
21.00 - Reception

Tuesday - Apr. 20:
09.00-11.00 - Presentation of Papers.
11.00-11.15 - Coffee Break.
11.15-13.00 - Presentation of Papers.
13.00-14.30 - Lunch.
14.30-16.00 - Presentation of Papers.
16.00-16.15 - Coffee Break.
16.15-18.30 - Presentation of Papers.
21.00 - "Meet the Israeli"
- The members of the Working Group will be invited to
the homes of Jerusalem Citizens.

Wednesday - Apr. 21:
08.00-21.00 - Visit to several Elementary Schools in Israel.

Thursday - Apr. 22:
09.00-11.00 - Workshop.
11.00-11.15 - Coffee Break.
11.15-13.00 - Workshop.
13.00-14.30 - Lunch.
14.30-16.00 - Workshop.
16.00-16.15 - Coffee Break.
16.30-18.30 - Workshop.
20.30 - Farewell Dinner.

Friday - Apr. 23:
09.00-11.00 - Closing Session - Discussion and Summing up.

LESOTHO

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ARCHITECTURAL BRANCH
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Our Ref: W/A/A/34

To: GABORONE, BOTSWANA
MR. DAVID YOUNG
PRESIDENT SADCC UA
PLOT 6406, BROADHURST

Fax No: 09267 - 372800

From : C.K. LEBONA, CHIEF ARCHITECT

Date : 18 FEBRUARY 1993

No of Pages [including this one]: 1

FAX MESSAGE

SADCC UA COUNCIL MEETING

Your fax dated 8th January 1993 on the above refers. Regret no chances for meeting on either dates. We are holding LAESA AGM. Thursday 25th February and Lesotho has elections Saturday 27th March.

Yours sincerely,

CLLebona

C.K. LEBONA
(CHIEF ARCHITECT)

cc. J. Wasserfall- FAX: 09264-225655
T.N. Ntlatlapa - LAESA

DAVID YOUNG, ARCHITECT
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Plot 6406 Broadhurst Industrial

SADCC UA
P/Bag 00120
Gaborone

RE: SADCC UA

(AOkp)56

STATEMENT OF ACCOUNT AT 30TH JUNE, 1993

date	details	debit	credit	balance
31/10/92	Account no. 92/1	129.22		129.22

CURRENT BALANCE: P129.22

Fees billed to date: Disbursements billed to date: P129.22

David Young
SAD-(A2ra)07

cc: File

(AOKP)56

1.00 URBAN UNIVERSITY V RURAL CAMPUS (1)

RECEIVED
18-10-1982
DAVID YOUNG ARCHITECT

THE GROUP WISHED TO REINFORCE THE VIEW THAT QUALITY OF EDUCATION IS ONE OF THE SINGLE MOST SIGNIFICANT FACTORS IN ESTABLISHING THE AWARENESS OF QUALITY IN OUR GLOBAL FUTURE, IN ITS BROADEST SENSE AND IN THE SPECIFIC OF ARCHITECTURE AND THE ENVIRONMENT.

→ UNIVERSITIES ARE STRESSING IMPORTANCE OF OUTREACH CONNECTIONS WITH SOCIETY.
NO SINGLE SOLUTION TO THE CORRECTNESS OF 'CITY OR CAMPUS'. THEY DEPEND ON THE DIFFERING FACTORS OF EACH OPPORTUNITY AND CIRCUMSTANCE
EXTENDING INTO DEVELOPING COUNTRIES WITH PARTICULAR PROBLEMS.

PRINCIPAL FACTOR IN EITHER OPTION IS 'CONNECTION'
IN THE CITY OPTION THE GATHERING OF STUDENTS FROM VARIOUS FACULTIES AND DEPARTMENTS TO A MEETING POINT OF LEISURE AND REST.
IN THE CAMPUS A SIMILAR CONNECTION BUT WITH THE ADDED NEED FOR A TRANSPORTATION SYSTEM TO THE CITY CULTURE.

THE UNIVERSITY IS A COMMERCIAL OPPORTUNITY BOTH IN CITY OR CAMPUS.
INTERACTION OF COMMERCE AND INDUSTRY INTO THE PHYSICAL BUILDINGS AND LIFE

3.00 BUILDING LEGISLATION AND CULTURAL PRESERVATION

RESTORATION OF SIGNIFANT HISTORICAL BUILDING FOR EDUCATIONAL USE INEQUITABLY INFLUENCE CULTURAL AWARENESS AND PRESERVATION.

PARTICULARLY IN CITY LOCATIONS THE REDEVELOPMENT AND REHABILITATION IN DERELICT SITES AND BUILDINGS ACTS AS CATALYST FOR LONGER TERM DEVELOPMENT. ESSENTIAL LIFE AND REGENERATION OF CONFIDENCE IN DANGEROUS AREAS BRINGS THE RETURN OF BUSINESS, EMPLOYMENT AND PEOPLE TO SECURE AND STIMULATING CITY LIFE.

BENEFITS ACHIEVED BY LOW COST LAND AND IN MANY AREAS EXTRA FUNDING FROM GOVERNMENT BODIES AND HISTORICAL INSTITUTIONS

IN GENERAL, THE COMMUNITY FEEL AN AFFINITY WITH BUILDING OF HISTORICAL QUALITY AND ENJOY LIVING AND WORKING IN A REMODELED BUT RESTORED ENVIRONMENT.

ON ENERGY SAVINGS AND
ESTABLISHING A UNIQUE ARCHITECTURE.
REDUCTION OF PRIVATE TRAFFIC AND INTRODUCTION OF PUBLIC TRANSPORTATION.
BUILDINGS DO NOT ALWAYS RESPOND
TO CLIMATIC AND ENVIRONMENTAL
CHARACTERISTICS OF A SPECIFIC LOCALISED
OPPORTUNITIES. THESE GO BEYOND
LEGISLATION AND REQUIRE INTELLIGENT
AND INNOVATIVE ARCHITECTURE.

SENSITIVE SITE SELECTION TO
AVOID AND PROTECT AGRICULTURAL
SPACES and nature AND THE AVOIDANCE AND ARCHEOLOGICAL SITES.
OF CONTACT WITH UNFRIENDLY
INDUSTRIAL ACTIVITY. unless this contact
is required by research.
~~BUILDINGS TO RESPOND ARTICULATELY~~
TO ENVIRONMENTAL SPECIFICS THUS
PRODUCING A MORE REGIONAL
ARCHITECTURE. IN WHICH STUDENTS
AND STAFF LIVE COMFORTABLY

A FULLY EXPERIENCED AND QUALIFIED ESTATE MANAGER REQUIRED WITH PRIOR SUPPORT AND ACCESS TO SPECIALISTS AND CONSULTANTS.

MULTI USE OF UNIVERSITY FACILITIES MEANS A BIGGER INVESTMENT AND BETTER QUALITY IN MATERIALS AND DETAILING TO ENSURE LONG LIFE.

INCENTIVES NECESSARY TO ENSURE THAT SPACE MANAGEMENT IS ~~CONTROLLED~~ CONSIDER SPACE CHARGING WHICH IS INCREASINGLY USED IN INDUSTRY AND COMMERCE. SPACE HAS COSTS – MAINTAINANCE AND UPKEEP WITH AN IMPLIED COST IN REPLACEMENT. AN OPTION WOULD BE TO HAVE A SPACE 'COST NORM' AND CHARGE ONLY FOR SPACE OCCUPIED ABOVE THIS 'NORM'.
IMPORTANT ISSUE IS TO CREATE AN EXPLICIT AWARENESS OF THE USE OF COST OF SPACE.

INVESTING IN A GOOD STUDENT IS INVESTING IN OUR FUTURE AND THE INEVITABILITY OF A BETTER BALANCED CIVILISATION.

An effective design means to meet the challenge of a good brief. If the architect receives a defective brief, it may be necessary to challenge it. The final design should be one that is appropriate to the unique conditions of a well defined given site. The campus architect, if there is one, has the task of interpreting back and forth between the client user and the designer in search of optimal solutions.

- selecting architects →

1. Urban University vs Campus

Briefs.

- Urban universities have a different character than do isolated, self contained campuses. Briefs should include sections on how a building locks into the urban fabric and creates an environment for enhanced inter-personal contacts within the university.
- Individual buildings can be located so as to create a university neighborhood, open to all walks of life. A good brief will advise on how to do this.
- The issue of transportation should be a part of all urban institutional briefs.

Design

- University policy makers and planners may decide to use the university as a tool for urban renewal. Building designers need to ensure that designs improve the appearance of their neighborhoods and contribute to the richness of urban life.
- Designs for urban institutions on restricted sites should include places where students can meet and interact.
- It may be more of a challenge to find the most appropriate architectural style for an isolated campus than for an urban building that can be related to its neighbors. In such cases [illegible] design approach [illegible] designer.

Design.

- The built educational environment should always be livable and express a certain dignity for learning even if the space is only planned for temporary use.

- The need to design large building envelopes does not ~~make good design impossible though~~ have to be an obstacle against making good designs that provide the ~~complexity of space~~ complex environments associated with urban life. The Architect must, however, not lose sight of the need to design environments suited for learning in the broadest possible sense. ~~The use of fancy and forbidding facades~~ distinguishing ~~may be great art but is inappropriate~~

- ~~Do not~~ Thanks to the primary and secondary bearing levels, architects can be relieved of structural hierarchy ~~and~~ space oversee construction of a building shell and planning for the building interiors.

- Building designs must provide for eventual ~~extensions~~ uses of information and other technology.

- The new technology may create the opportunity to move the teacher & the student. Decentralized institutions is another attempt in this direction.

- Architectural competitions are often used to seek out the best designs. With buildings and construction programmes as complex as those needed for the large, flexible buildings, some countries feel that an approach which examines the quality of architectural services available from a firm is a better approach.

RECEIVED
10 -10- 1982
DAVID YOUNG ARCHITECT

Rain-Water Drainage System . . . . . 5 Points

Sewage System . . . . . 5 Points

Total: 25 Points

Internal Component Group (75 Points)

Structure . . . . . 30 Points

Roof . . . . . 10 Points

Architecture. . . . . 5 Points

Cladding . . . . . 5 Points

Comfort Conditions. . . . . 5 Points

Safety Conditions . . . . . 5 Points

Interior Electrical . . . . . 5 Points

Interior Sanitation Facilities. . . 5 Points

Total . . . 75 Points

D.6) The General Component value is obtained from the product between the corresponding Specific Value and its maximum General Value.

2.3.-**Degree of Deterioration Calculation for Educational Premises**

The Degree of Deterioration is the result of the Total of the General Points or Values of each Component it comprises.

External Component Group

External Areas. . . . . A

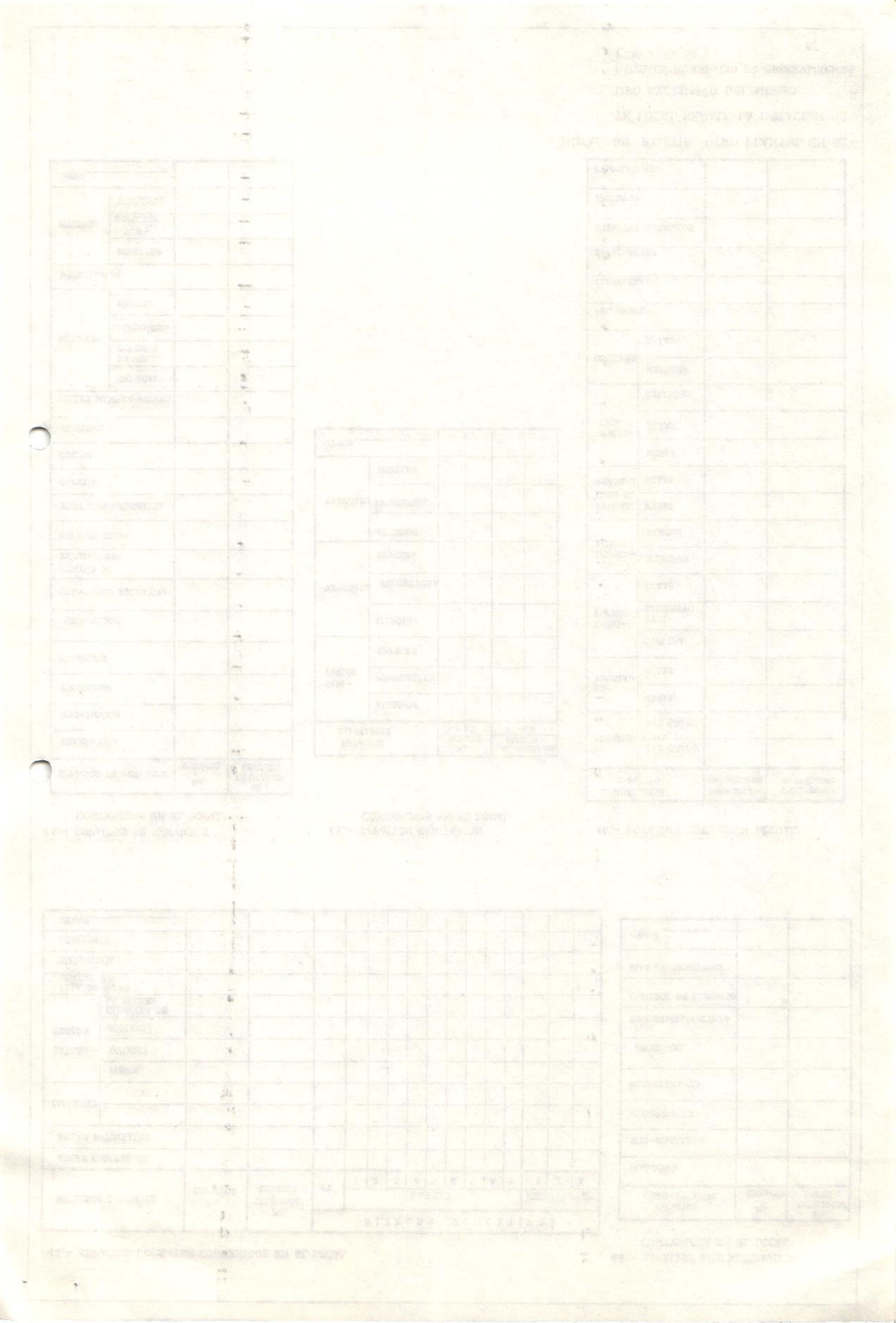
Exterior Electrical Installetions . . . . . B

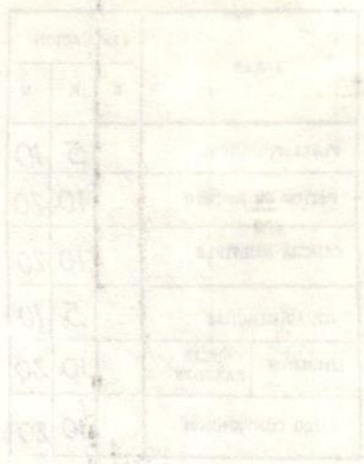
Drinking Water System C

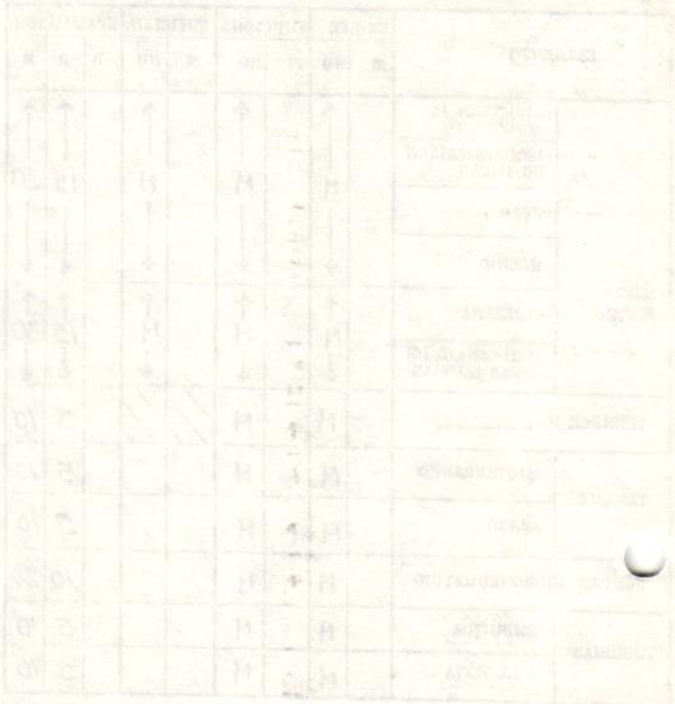
Rain-Water Drainage System. . . . . D

Sewage System . . . . . E

ANNEX 1







.- CARACTERISTICAS CONSTRUCTIVAS DEL EDIFICIO.

ELEMENTO		B	R	M
COLUMNAS			5	10
VIGAS			5	10
LOSAS	ENTREPISO		↑ 5 ↓	↑ 10 ↓
	TECHO			
PARES (VIGUETAS)			5	10
MURO PORTANTE			5	10
ESCALERA			5	10

.- SITUACION ACTUAL DE LA CUBIERTA

ELEMENTO		EVALUACION B	R	M
LIVIANA	LAMINA METALICA/OTRO.		5	10
IMPERMEABILIZACION			5	10
RECUBRIMIENTO	TEJAS/TABILLAS		5	10
PENDIENTES			5	10

20/40 40/40

.- ARQUITECTURA SITUACION ACTUAL

ELEMENTO		EVALUACION B	R	M
PISOS	EXTERIOR		5	10
	INTERIOR		5	10
PAREDES	EXTERIOR		5	10
	INTERIOR		5	10
TABIQUES	SANITARIOS		5	10
	OTRO ____		5	10
VENTANAS			5	10
BLOQUES DE VENTILACION			5	10
PUERTAS			5	10
REJAS	PUERTAS		5	10
	VENTANAS		5	10

55/110 110/110

.- RECUBRIMIENTOS SITUACION ACTUAL

	ELEMENTO	EXTERNO B	R	M	INTERNO B	R	M
PISOS	PAREDES		5	10		5	10
	TECHOS		5	10		5	10
	ESTRUCTURA		5	10		5	10
PORCELANA	PAREDES		5	10		5	10
	PISOS		5	10		5	10
	ESTRUCTURA		5	10		5	10
PINTURA	PAREDES		5	10		5	10
	TABIQUES		5	10		5	10
	TECHOS		5	10		5	10
	ESTRUCTURA		5	10		5	10
	VENTANAS		5	10		5	10
	BLOQUES VENTILACION		5	10		5	10
	PUERTAS		5	10		5	10
	REJAS		5	10		5	10

140/280 280/280

.- CONDICIONES DE CONFORT

ILUMINACION B[ ] M[X] 10

VENTILACION B[ ] M[X] 10/20/20

.- CONDICIONES DE SEGURIDAD

LOS PASILLOS ESTAN CUBIERTOS SI[ ] NO[X] 10

LAS PUERTAS OBSTACULIZAN LA CIRCULACION EN PASILLOS SI[X] NO[ ] 10

LOS PASAMANOS ESTAN B[ ] R[X] M[X]

LOS ESCALONES ESTAN B[ ] R[X] M[X] 5/10

.- EXISTEN DISPOSITIVOS DE EMERGENCIA SI[ ] NO[X]

DISPOSITIVOS DE EMERGENCIA	EXISTE SI	NO	FUNCIONA SI	NO	EVALUACION B	R	B
MANGUERA CONTRA INCENDIO		M		M		5	10
EXTINTOR		M		M		5	10
LUCES DE EMERGENCIA		M		M		5	10
OTRO_____		M		M		5	10

10/80 80/80

.- INSTALACIONES ELECTRICAS. SITUACION ACTUAL

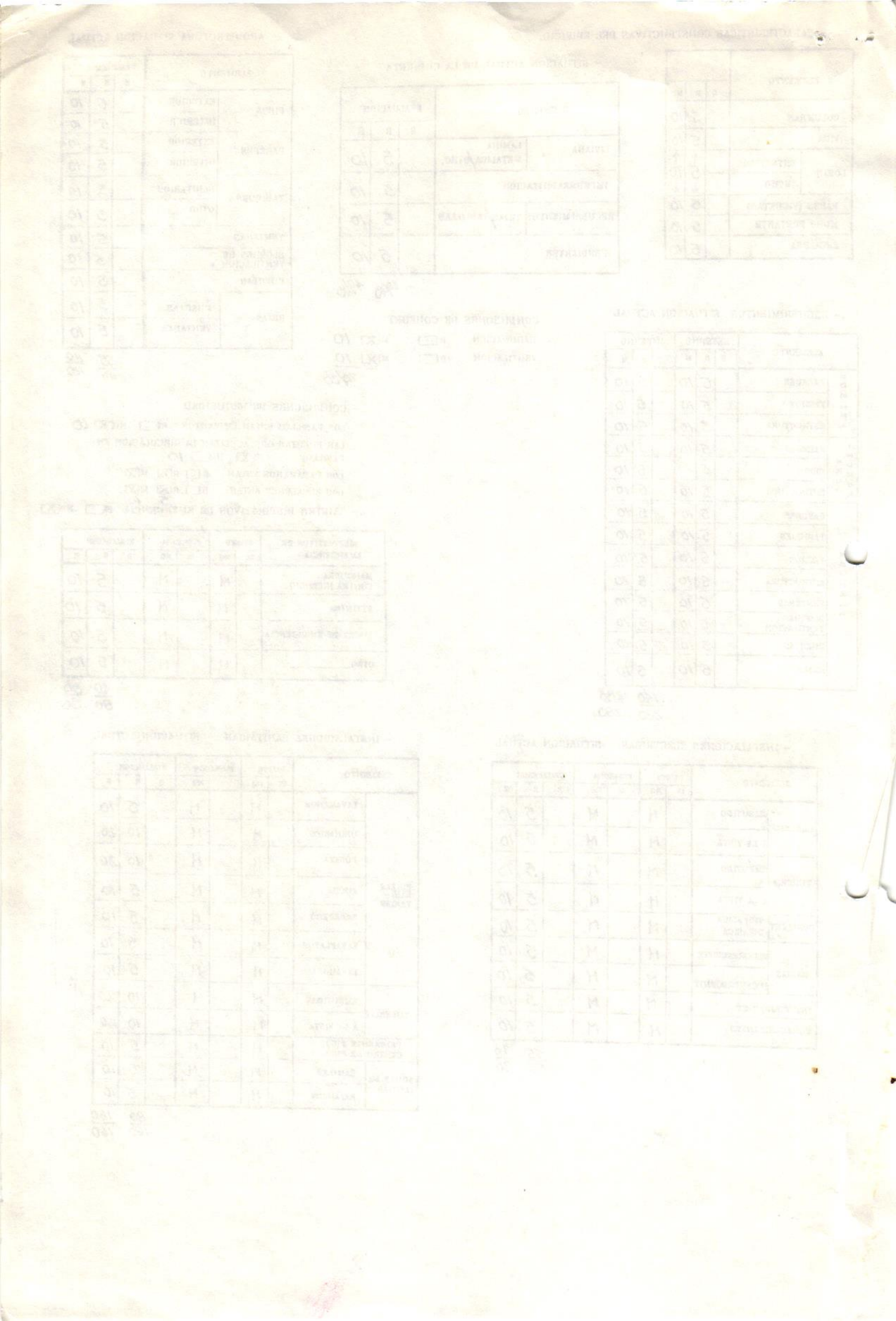
ELEMENTO		EXISTE SI	NO	FUNCIONA SI	NO	EVALUACION B	R	B
CABLEADO	EMBUTIDO		M		M		5	10
	A LA VISTA		M		M		5	10
TUBERIA	EMBUTIDO		M		M		5	10
	A LA VISTA		M		M		5	10
CORRIENTE	TRIFASICA		M		M		5	10
	BIFASICA							
LUMINARIAS	FLUORESCENTE		M		M		5	10
	INCANDESCENTE		M		M		5	10
INTERRUPTORES			M		M		5	10
TOMACORRIENTES			M		M		5	10

15/90 90/90

.- INSTALACIONES SANITARIAS . SITUACION ACTUAL

ELEMENTO		EXISTE SI	NO	FUNCIONA SI	NO	EVALUACION B	R	B
PIEZAS SANITARIAS	LAVAMANOS		M		M		5	10
	URINARIOS		M		M		10	20
	POCETA		M		M		10	20
	DUCHA		M		M		5	10
	BEBEDERO		M		M		5	10
	LAVAPLATOS		M		M		5	10
	LAVAMOPAS		M		M		5	10
TUBERIAS	EMBUTIDAS		M		M		10	20
	A LA VISTA		M		M		10	20
PENDIENTE PISO CENTRO DE PISO			M		M		5	10
AGUAS DE LLUVIAS	CANALES		M		M		5	10
	BAJANTES		M		M		5	10

80/160 160/160



The University in a Developing Country

John M. Dubbey

INTRODUCTION

In many ways the tasks required of the University of Malawi are similar to those of any other higher educational institution; the University recruits and graduates students in a variety of subject areas, and it researches in most of these fields. In other ways, the challenge, the motivation and direction can be quite different. While acknowledging the similarities and the consequent ability to draw upon experience gained in British institutions, it is my purpose in this article to concentrate on the differences and to indicate the particular responsibilities and opportunities of a university in a developing country. The argument will be developed that this type of requirement provides a legitimate and academically stimulating alternative to the temptation to simply follow the pattern of traditional universities. The illustrations are, naturally, taken mostly from Malawi, but it is considered that the emphases are general enough to contain a wider applicability.

BACKGROUND

For comparative purposes, it will be necessary to offer a brief introduction to the University of Malawi. When it was founded at Independence in 1964, a major structural decision was made which has had most interesting consequences. In contrast to Britain, which at that time was formalizing the binary system, and several neighbouring African countries which introduced a hierarchy of higher educational institutions, Malawi opted for an umbrella system in which the University embraced all national colleges of higher education. These included Chancellor College, now in Zomba, and the largest of the components with Faculties of Humanities, Science, Social Science, Education, Law and Public Administration: the Polytechnic in Blantyre, focusing mainly on Engineering and Commerce, the Bunda College of Agriculture and Kamuzu College of Nursing, both in Lilongwe, the capital city. There are, it must be admitted, practical problems in operating on sites as much as 200 miles apart, but the general principle has proved to be most successful and I am currently persuading at least one neighbouring University to rectify the mistake of its initial structure and adopt the Malawian pattern.

BENEFITS

The major advantages which have followed this alignment are that there has never been any problem about parity of esteem since all Colleges offer university degrees and diplomas. There is a pronounced vocation bias, and there is healthy competition through the selection process. While some countries still worry about the science/arts ratio, in Malawi at least 85 per cent of students are in specific vocational areas leading to good employment prospects. With this sort of ratio, the University is still able to produce enough poets, philosophers, historians and sociologists, but not in disproportionate numbers. If it were possible to expand the University and (as will be argued) this is a major aim, the ratio will be maintained.

Applicants to the University have passed the Malawi Certificate of Education (cross-moderated with AEB — African Examination Board), equivalent to the British O level, and take four or five years to a degree with an additional year to honours. Selection is made on merit, and it is current experience that the Polytechnic is attracting the best students into the Engineering and Business Studies programmes. This type of choice is made possible by giving the Polytechnic equal status to the other Colleges, and these in turn are challenged to improve their curricula and vocational prospects in order to compete for the better students.

With this introduction to provide a background to the illustration, I offer the following indicative features of the particular challenges facing this type of university.

PARTICIPATION IN NATIONAL DEVELOPMENT

Participation in national development must, I believe, be a major responsibility for a national university. Many universities were initiated to provide graduates and diplomates in appropriate areas in significant numbers for the immediate needs of national development. The concept not only provides a motivation for having a university at all, but also offers a natural wealth of opportunities for pure and applied research, consultancy and curriculum development. The problems to be solved in all sectors pose an intellectural challenge at least as great as any of those offered in traditional academic disciplines. There can be no fear of dilution of intellectual standards by relating the thrust of the university to the challenges of national development. Further, in most cases the university has the greatest depth and diversity of human ability to be found anywhere in the country. In Malawi, one can estimate that at least two-thirds of PhD holders in the country work for the University. This concentration of human resource can potentially be mobilized for the benefit of the nation. It is encouraging that government and parastatal bodies are already looking to the University for consultant expertise rather than seeking expensive and not always productive help from Europe or America, and that private companies are beginning to contract their entire training programmes to the University.

The Malawian Government has recently announced a 10-year development plan, and in each of the component sections — Agriculture, Animal Husbandry, Forestry, Fisheries, Minerals, Commerce and Industry, Trade and Finance, Construction and Civil Engineering, Energy, Wildlife, Tourism, Health, Housing, Mining, etc. — staff from the University will work with counterparts in the public and private sectors to extend and implement the programmes. The University will also continue to make mutually beneficial contracts with private companies as a major national provider of research, consultancy, training, testing and advisory services. In turn, through well developed policies on research, consultancy and short courses, the University will benefit financially, both to diversify its financial base with respect to government subvention and as a legitimate means of salary supplementation for our staff who are anxious to resist temptations to work elsewhere. We believe also from experiences in other parts of the world, that the commitment of staff to these activities will refresh their own academic experience, enliven the curriculum, motivate students and lead to higher standards all round.

The match between development at national and university levels also provides a means to explore what might be lacking in the University. Agriculture is of predominant importance in Mala'wi, while Health and Education are major national needs and there is a small but growing industrial sector. The University provides training and research in all these areas. In contrast, one major geographical feature of the country is Lake Malawi, 300 miles long with an abundance of species of fish, with great potential for food, tourist and transport provision, and these are areas which the University does not yet cater for. Over 90 per cent of Malawians live in villages, the potential drift to large towns having been successfully resisted. The Centre for Social Research at the University and Department of Rural Development have been very active in

research into the realities of village life, but in view of the magnitude of this section of the country there is much more that the University could do to help to raise living standards in these remote areas.

THE PROBLEM OF STANDARDS

Any university is required to demonstrate the quality of its graduates. If the degrees are not acceptable by international standards, the university education is virtually useless; it would be better to invest the resources elsewhere in the educational system. The normal African university has to maintain such standards in a framework of very low funding. To achieve at all within severe financial restraints, it is necessary to place emphasis on the human resources we have and to concentrate on effective teaching by hard-working members of staff, with diligent and well-motivated students.

It is important to underline in this context the vital contribution which can be made by conformity to the norms of Malawian society. The independent nation was founded under the four corner-stones of Unity, Loyalty, Obedience and Discipline, and these are emphasized at all ages and in all aspects of life. There is in consequence a powerful work ethic, a respect for custom and tradition, and a drive for integrity. For the students at the University, this is shown in obedience to parents, respect for elders, attention to teachers, diligence in work and higher motivation in study. It is interesting that a recent tracer study of former graduates revealed that in terms of work motivation, service to the community rated much more highly than good salaries. Under this ethos, over the years the University has developed demands on students which might be considered draconian in other countries, but which appear to work successfully here. It is paradoxical that a major enemy to university progress can be the bad academic habits acquired by staff when working for doctorates abroad, but fortunately the Mala'wian virtues of discipline, work and care for students usually prevail.

We measure our success in terms of the overall student pass rate of 95 per cent with minimal number of drop outs (in the Polytechnic part of the University, the figure is nearer to 98 per cent), the objective comments of external examiners with international experience, and the achievements of postgraduate awards overseas in the minimum of time afer graduating here at first-degree level. We also provide good standards at very low cost. When I was in the United Kingdom recently visiting some universities, I noted the annual recurrent costs against the number of graduates produced, and discovered that we are producing quality graduates at about one-fifth the cost of the British ones. However low our resources — and, as indicated, we must work to improve the financial base — we cannot afford to fall below genuine international standards. We require dedication, commitment and concern to continue to achieve what would otherwise seem to be academically and financially impossible. What is lacking in finance is compensated for by the ethos of Malawian society, and it is a great asset of a developing country that moral, personal and spiritual issues are taken most seriously.

ACCESS TO EDUCATIONAL OPPORTUNITY

A further responsibility is to provide access: the University must use its influence to create educational opportunities at all levels. There are three major bottle-necks in Malawian education. For lack of finance, nearly half the children receive virtually no education at all. For those completing the eight standards of primary education, there is one place in ten at secondary schools. After four years of secondary education leading to the Malawi Certificate of Education, there is one place in six at the University. The position worsens each year as the school population increases by 5 per cent; the pass rate at secondary level, thanks to an injection of distance education successes, increases annually by 10 per cent but the University still offers only 600 residential places per year and this is clearly insufficient to support a national population of 8 million. The University necessarily has a responsibility to increase access opportunities. Each year now we have the tragedy of over 2000 qualified, able students unable to gain a place. We are beginning new modes of attendance. Nonresidental places are being offered, part-time day-release and block-release courses are available, courses in the long vacations are being offered, and longer-term plans for university-based distance education are being developed. With all these devices, expansion of student capacity is still highly expensive; here we must argue to reverse current World Bank thinking with its spurious economic rate of return arguments so detrimental to university growth.

The theory propounded (*Financing Education in Developing Countries*, World Bank, 1986) is that since the economic rate of return from the primary sector of education is superior to that of the secondary sector, which in turn is higher that that from tertiary education, a developing country should direct its scarce resources away from the university towards building up primary education. Yet the primary sector is, comparatively speaking, so large and in most cases so chronically underfunded that vast sums need to be spent to make a significant difference to quality. Only a fraction of donor spending on this sector could make a vital difference to the much smaller tertiary sector which, with its more immediate proximity to national development, could provide far better value. The real growth of the primary system must be a function of the economic development of the whole nation and not the sum of randomized donor increments. With respect to education, the major responsibility of the university is to do what it is able to in improving the quality of primary and secondary sectors as they currently exist. The university can provide research into the realities of education, specialized courses for teacher-training staff, in-service development for head teachers and inspectors, validation of primary teacher-training courses, primary and secondary curriculum development, assessment and evaluation. The future of the university lies in the strength of the primary and secondary sectors, and it is a major task to direct its expertise towards the improvement of the quality of education at all levels. This must include an appropriate input to adult education, to enhance the provision being made to help the largely illiterate adult population.

VOCATIONALISM

A consequence of the philosophy of increased access is that the University will necessarily be concerned at the vocational outlets available for the existing and enhanced numbers of students. The vision which seeks the full educational development of those able to benefit must follow through to seek the right personal fulfilment in the world of work. We therefore take a major interest in the job prospects of our graduates, primarily for the benefit of the individual but also to show some return for the not inconsiderable expenditure necessary in preparing a graduate. The University is, as stated earlier, has the good fortune to be largely vocational in nature, and consequently most of our students find employment without difficulty. However, constant vigilance is needed as vocational prospects fluctuate. We operate three measures to meet this problem.

First, we try to discover and obtain reliable information on what happens to our students after graduation and in their subsequent careers. To this end, we have tracer studies operating in four Colleges and another survey to determine the needs of industry in relation to our courses. The aim is to discover how appropriate our programmes have been and to determine if we have achieved the right match between the courses we offer and national manpower requirements. Obviously we are not seeking crude vocational training for our students, but we do want to know if we are providing the right educational foundations, and make corrections if we are not.

Second, we can identify a particular source of unemployment in students graduating from Humanities and, to a lesser extent, the Social Science Faculties. This is a serious problem, because we want students who wish to take the Humanities subjects not to be deterred by the poorer employment prospects. To achieve this, we are about to launch for these students a series of one-year conversion courses which will give a good professional introduction into the

Research and Higher Education in Newly Industrialized Countries

Philip G. Altbach

INTRODUCTION

Universities have always been key institutions for training highly-skilled personnel. Only recently have they also assumed the role of research centres for countries which are moving towards technologically-based economies. Developments in the newly industrializing nations in East and Southeast Asia are of special interest because these societies have achieved impressive economic success and are now investing heavily in higher education as part of a strategy for rapid scientific development. Examples of such scientific developments can be seen in the establishment of the Korean Institute for Advanced Science and Technology (KIAST), the links between several national universities and the Science-Based Industrial Park in Taiwan and the new technological university which will soon open in Hong Kong. All of these institutions are intended to propel their countries to the frontiers of scientific development, to link basic research in these sciences to industrial and technological development and to provide mature advanced training for researchers and professionals.

The development of a sophisticated research infrastructure is an expensive and complex process yet it is a necessary part of the establishment of an independent scientific base that can contribute to high-tech development. The newly industrialized countries (NICs) have, for the most part, relied on imported knowledge for development. Even Japan, until quite recently, was dependent on basic scientific research from abroad for its technological development. Japan is now moving rapidly to develop capability in basic research and also in the communication of research results abroad.

RESEARCH AUTONOMY

Full research autonomy in an interdependent scientific system is not possible. Science, by its very nature, is international. Scientific communication, through journals and, to some extent databases, is also international and to a considerable extent in English, the current international language. It must also be understood that the international scientific infrastructure is characterized by inequalities. The bulk of the world's scientific research is done in a few countries. It is estimated that more than 80 per cent of the world's research and development (R&D) spending takes place in a handful of major industrial countries, United States being the dominant (but declining) research power, and Japan increasing its share of research expenditures . The scientific communications network is just as concentrated, with the large proportion of journals published in English and edited from the United States or, to a lesser extent, from Great Britain. Thus, there are important world scientific centres and many peripheries.

The newly industrializing countries have been moving towards scientific development and as much autonomy as is possible in an interdependent world. This development is extremely important for a number of reasons. The creation of sophisticated scientific capability, including scientific institutions capable of doing basic research, is needed to establish a self-confident science infrastructure — one that can train needed personnel and which has the capability to respond to emerging international trends. Advanced scientific structures are necessary, not only for the production of research but also for the assimilation and communication of trends from the world's scientific centres.

A significant portion of the scientific communities of countries like Taiwan and South Korea work abroad. The establishment of an independent scientific base has lured some of these scientists back from the Unites States. Even when these researchers do not return, they can interact with scientists at home. For example, researchers from such countries as India and Taiwan working in the computer industry in California have contributed significantly to applied development in their native countries. It is necessary to have an active indigenous scientific community in order to attract home local scientists working abroad, and to maintain close links to the knowledge that is created abroad.

SCIENTIFIC DEVELOPMENT

Research-oriented universities are the key to scientific development and to both basic and applied R&D. These institutions, of course, also provide the high-level training required by high-tech industries. The NICs are moving rapidly towards ensuring that they have a sufficient number of world-class universities to serve as scientific centres, points of knowledge transfer and repositories of data and complex laboratory equipment.

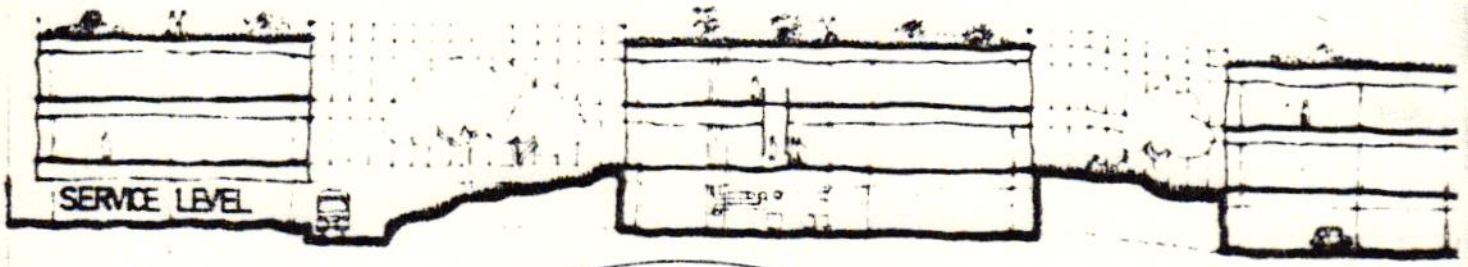
It is significant that with one or two exceptions, (mainly in Taiwan) the Asian NICs have not set up free-standing research institutes along Soviet lines. Such institutes, while fairly successful in producing quality research and more easily controllable by governments, are hampered by their lack of relationships with the universities, particularly with the stimulating interplay of teaching and research at doctoral level. India, with the largest scientific infrastructure in Asia, has suffered from a scattering of research in a variety of specialized institutes as well as in a few of the top universities.

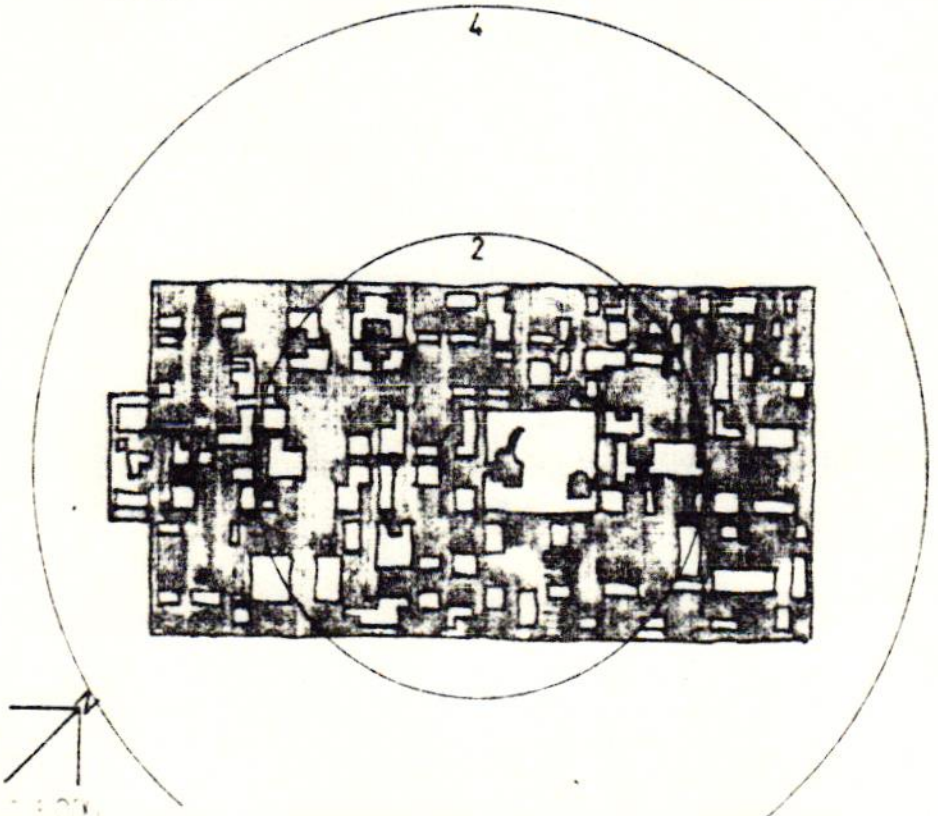
The implanting of a scientific culture is not an easy thing. It requires a significant degree of autonomy — the freedom not only to choose research topics and to control the curriculum, but also to ensure that the academic staff have a high level of academic freedom. It is always a challenge for governments, which after all provide most of the funding for higher education, to permit universities to control their own destinies and even more a challenge for them to allow professors the freedom to carry out research and write on subjects which may run counter to current state policy. A scientific culture also requires academic institutions to be run along meritocratic lines, with no political interference in appointments and promotions. It means that productivity must become an important criteria for promotion as well.

STATUS AND LANGUAGE

Universities in the NICs are both national and international institutions. They function in a national environment and serve national needs, but they are also part of an international culture. The issue of language in this respect is important. Universities in the NICs must have access to the English language world of international science, yet at the same time they need to communicate internally. The NICs indicate some different approaches to the complex language issue. In Singapore, the response has been clear — the entire higher education system operates in English (as does most of the primary and secondary education). All teaching and writing is in English. About half of the academic staff at the National University of Singapore are expatriates. In Taiwan, the academic institutions function in Chinese, but the major journals in the 'hard' sciences are in English and academics are also expected to

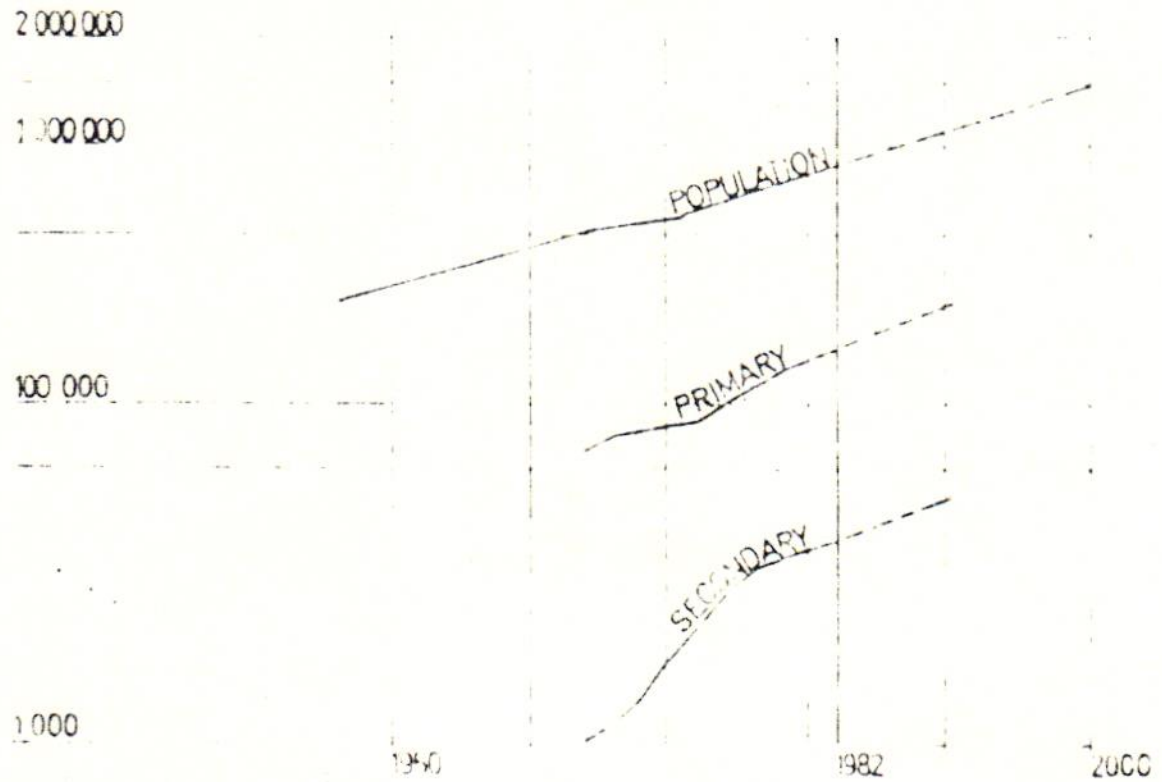
SECTION 1:500



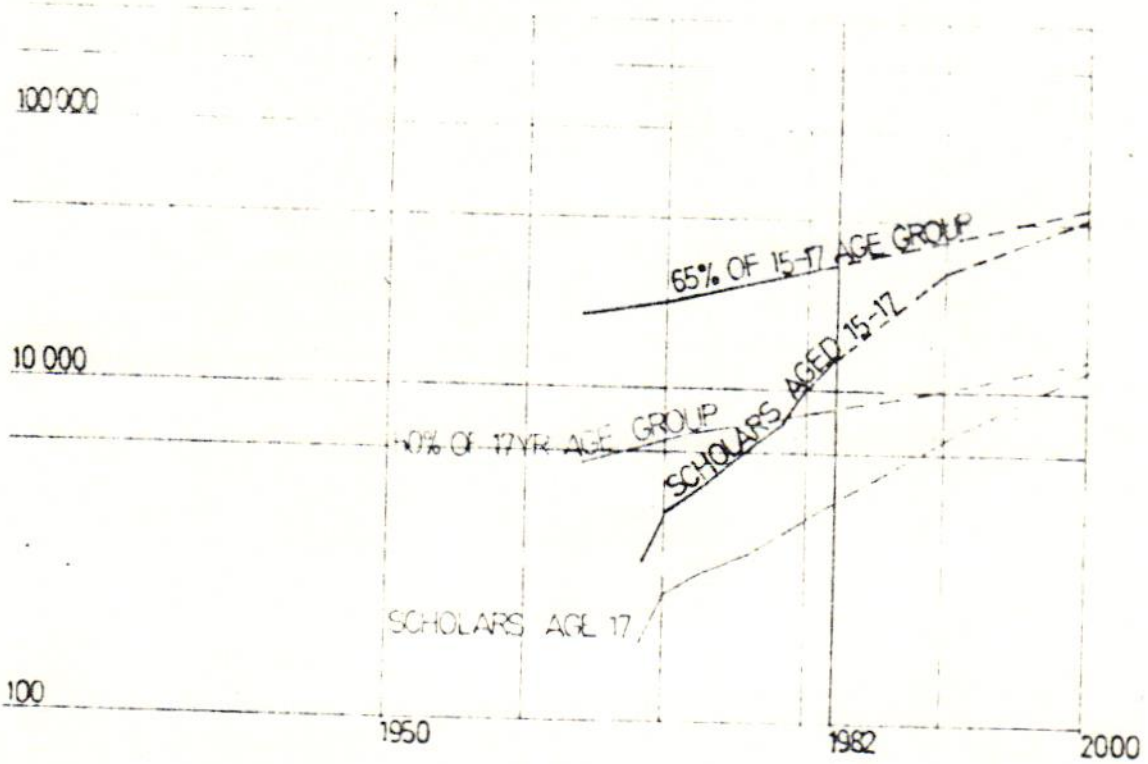


2/1 BERLIN FREE UNIVERSITY

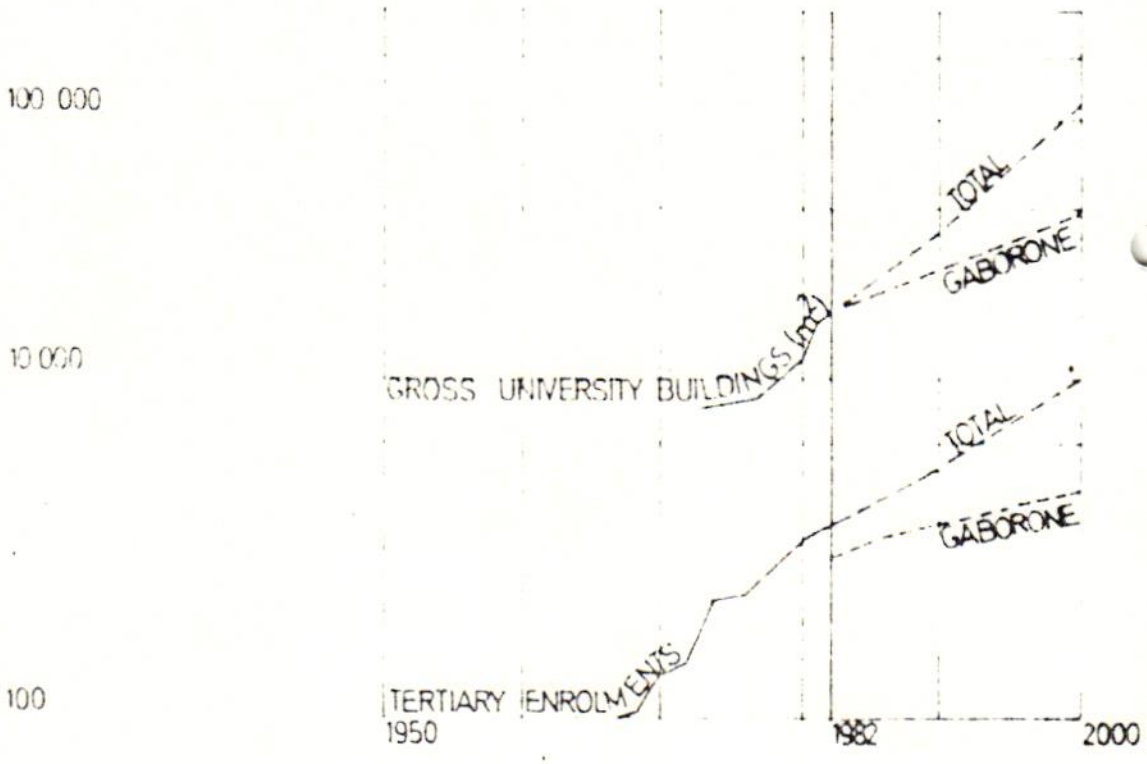
CANDILIS JOSIC WOODS COMPETITION ENTRY 1963
3600 STUDENTS


2 000 000
1 000 000
100 000
1 000
POPULATION
PRIMARY
SECONDARY
1980
1982
2000

4.1


100 000
10 000
100
65% OF 15-17 AGE GROUP
10% OF 17YR AGE GROUP
SCHOLARS AGED 15-17
SCHOLARS AGE 17
1950
1982
2000

4.2


100 000
10 000
100
GROSS UNIVERSITY BUILDINGS (m²)
TOTAL
GABORONE
TERTIARY ENROLMENTS
TOTAL
GABORONE
1950
1982
2000

...ow

...e on blue

...struction

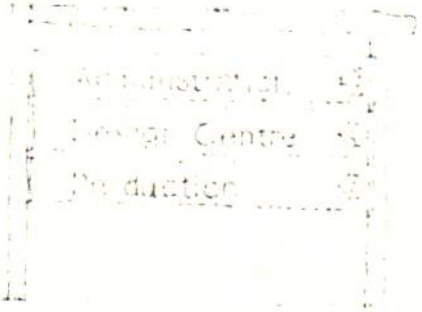
White on green

Emergency

White on red

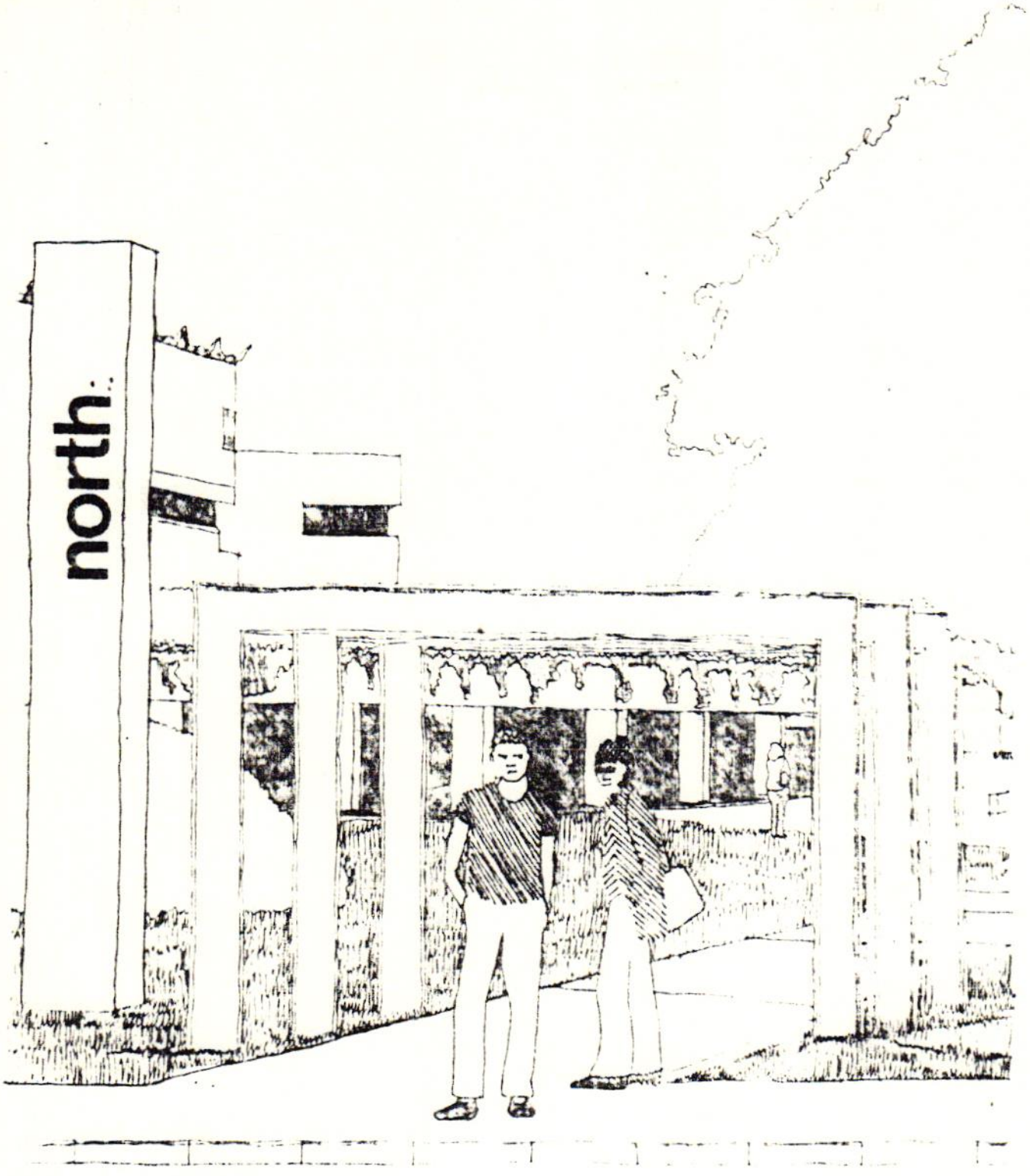
Danger

2



3

10.2.1



10.2.2

architectural competitions.

g) That if for any reason an architect wanted to build over our service walkways that the Development Committee would consider this on an individual case basis.

h) That the location of the proposed theatre be reconsidered re parking and circulation.

i) That we accept the architects report in principle on building heights but in the future two storey buildings may be required where the architect indicates these as single storey along the ring road.

j) That with respect to sports facilities these should not be duplicated with the facilities across Notwane Road.

k) That with respect to the Kitchen/dining facilities, this Committee recommended that a Sub-Committee be appointed to study the question of additional Kitchen/dining facilities on the campus. There is a number of questions to be answered concerning number of students on campus, how meals should be paid for, how many meals should be served etc.

l) That with respect to the Laundry, this Committee recommends that this question should be examined, and if possible, answers found to the question of providing laundry services for the students. This Committee recommends that the laundry facilities as presently constituted be abandoned or revised.

The students could either do their own laundry or perhaps a private Laundromat could be established on campus.

m) That with respect to the existing library building,(when the new library is finished) this Committee recommends that the use of the existing library be studied by the Committee presently meeting on National Development Plan VI.

n) That the Master Plan Architects should be closely involved in all campus development re approval of all the proposed site plans, building regulations, general design principles. This could only be done through the Development Committee as our Master Plan Architect has no powers to act other than as a consultant to the Development Committee who could then take any necessary action required.

[Add title page]

SADCIA file

UIA6
IN SEARCH OF THE APPROPRIATE.

A view from Southern Africa.

Introduction

Appropriate: 'suitable' or 'proper' from the Latin root 'own'.

The notion of appropriateness, although it has been with us as long as the word for it, has only begun to be applied to architecture relatively recently. This is not because we have only now realised that an appropriate thing is better than an inappropriate one, but because our appetite for and ability to produce inappropriate solutions has increased greatly while, at the same time, in parts of the world, inappropriate solutions have become a luxury which we can no longer afford. The search for the appropriate has not been made any easier by the fact that the complexity resulting from increasing economic technical and cultural interdependence is sometimes beyond the understanding of decision-makers, while the sheer pace of development required imposes on us a timetable in which there is often no room for the research necessary for identifying the appropriate solution.

The above is doubly true for the developing world. Not only has the notion of appropriateness come to us late, but it also often came not as a notion, but as a ready-made "appropriate solution". It is amazing how few people realise that "appropriate solutions" do not travel well.

Although great strides are being made in our region in many aspects of development, the design of higher education facilities seems to pose a particular problem as far as appropriateness is concerned. The reasons for this situation seem to be the following:

Our higher education is modelled on an academic world culture, tending to spread from the developed to the developing world. To a relatively unsophisticated public, social function is often associated with built form, and with the buildings of the developed world, being far better illustrated than those in the third world, the image of the desirable and correct facility tends to be the first world model, however inappropriate it may be for our region's climate or economic situation.

Higher education facilities are usually commissioned by the state governments, whose desire to build monuments to themselves is certainly not without precedent all over the world. While we accept the idea of the necessary monument, the scale and nature of national universities, like national airlines, is often a matter of pride rather than necessity. Many of the educational needs of our region could be more economically satisfied at a regional level. Political and tribal considerations also have a history of overriding real needs. Architects often find it quite difficult to enter into dialogue with economists regarding the resources and characteristics of our region, while at the same time being as tempted as any to design and build monuments.

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The context

The ten SADC countries define the southern Africa region for the purposes of

this discussion, but we also make reference to data for subsaharan Africa and Botswana. The states in the SADC region are fairly new, and have tended to have their governments control and direct their economies and educational systems. Past political instability has hampered progress. There presently appears to be a spirit of cooperation to a greater degree than previously, which may lead to more genuine economic links being permitted. The region has low gnp, and undeveloped human resources are the main reason, despite substantial natural resources.

Typically, schooling in the region comprises around 7 years for primary and five years for secondary level. Tertiary studies include Universities, Polytechnics and various high-level vocational training colleges. Higher education is seen as being of paramount importance for Africa's future. Subsaharan university enrollments have grown from 1200 in 1960 to 440 000 in 1983, but ~~present~~ current indications are that the present structure is unsuitable and the efficacy of the systems is questionable.

The region is characterised by unpredictable climatic conditions, undeveloped or undervalued natural resources and, above all, underdeveloped human resources.

Teachers are generally in short supply; staff development in Africa at tertiary level is lagging badly. Facilities, funds and staffing are generally inefficiently structured.

Given this, the pace of development required, multiplied by a 3% population growth rate and the need to satisfy the most basic of human needs is not being achieved, despite the fact that certain states have excessive numbers of graduates in certain fields.

For Botswana, the defined national objectives are democracy, development, self-reliance and unity. Planning of development has the objectives of sustained development, rapid growth, economic independence and social justice. While short term fluctuations in emphasis occur, the aim is to balance all of these in the longer term. This set of objectives is not untypical of states in the region.

In the educational sphere, recent deterioration is reducing the capacity of Africa's tertiary institutions to contribute to regional development. These establishments must have their quality restored and then considerably improved to allow the region to make its own best uses of the rapid advance of science and technology. Most states, however, will first need to rearrange their systems to fit present changed economic circumstances before moving on to improvements. Institutions, campuses, departments and programmes need to be combined into larger, more viable units. Staffing, in particular academic but also non-academic, needs to be reduced while upgrading levels of relevant training and experience. Student numbers need to be stabilised by increasing entry and performance requirements while introducing the notion of real costs for board and lodging, this being mitigated for genuine cases of need. From this, a sound base would be established to expand necessary graduate numbers and the scope of the research and community activities presently struggling to survive. The utilization of existing facilities and the planning of new ones is an integral part of such restructuring.

Although the advantages of appropriate solutions seem self-evident, we would

like to highlight the penalties imposed on our region by this often unconscious preference for the inappropriate ones. These costs, while mostly hidden, are becoming unsupportable to our resource-starved economies and social systems.

Proportionally high expenditure on higher education deprives other, often more necessary levels of education of the necessary funding.

Within higher education, the proportionally high expenditure on buildings depletes higher educations budget with the result that there are insufficient funds for the proper running of the facility.

Inappropriate design with regard to climatic controls often commits the institutions to ever mounting costs of purchasing, running, maintaining and replacing of mechanical climate controls, while a lot of unnecessary use of sophisticated materials, construction methods and finishes makes it necessary to employ specialised or highly skilled construction and maintenance labour, which often needs to be imported and which, even if locally available, does not come cheap.

The widening gap between the rich and the poor, while acceptable to most on the rich side, is not part of our Governments stated aims and objectives, and yet it can be seen as a result of the continuous over-provision for the needs of the upper strata of our societies.

The graduates of higher education institutions often either leave for richer countries in search of the high standard, to which they have become accustomed, or stay on only to take up what they think is their rightful place among the country's new aristocracy. Some also show signs of becoming permanent students highly qualified but not contributing to the society.

The tertiary facility

Adverse economic conditions bring the need for appropriate solutions into sharp relief and have produced very satisfactory results in secondary and vocational facilities where funding was restricted. The search for such solutions should be equally rigorous at each level of planning.

Academic plan

Various historical and social phenomena have created a number of models, thorough understanding of which is necessary in deciding whether any one of those is applicable, or whether the project is without precedent. This, in turn, calls for an in-depth understanding of the context i.e. the role that is, should be and could be played by the institutions of higher learning in our society. As this is to a certain extent a political decision, politicians should be expected to participate in its making. Their influence should be moderated by those professionally involved in academic, social and related developmental issues.

Higher education has a particularily important role to play in the society, and is seen as the "engine which pulls the train". While not in any way disagreeing with the basic logic of this approach, we feel that better use of resources in the sphere of higher education could have an important impact on

education as a whole. If, through increased funds, better education was provided at primary and secondary levels, as well as better vocational training, not only would there be an improvement in the quality of higher education, but also the "train" could begin to be partly self-propelled.

The social benefits of improved primary and secondary education are particularily important in a region undergoing such swift and profound economic and social change. The population's ability to become more than passive spectators has to be improved and understanding of the forces governing peoples lives has to be fostered if culture and self-esteem are to be preserved and developed.

The priority assigned to various fields of the economic and social development process should be reflected in the academic planning in order to correct present imbalances. Also to be taken into account is the fact that our region does not exist in isolation and that the process of building up of our higher education system is, of necessity, a very gradual one. External help is and will continue to be needed for many years to come. Specialists in subjects with a relatively limited social or cultural content can continue to be imported from other regions for a long time to come without any drastically negative effects, while others, whose field of expertise is closely related to local conditions, such as architecture, should be trained locally.

Programmes for regional co-operation in the field of higher education should be developed or strengthened, thus removing the unnecessary burden of providing a full range of higher educational opportunities on every individual country. Consideration must also be given to rationalising existing facilities, departments and teaching programmes to improve their viability.

Courses should be provided that can make use of existing employers, whose potential for training and education should be maximised.

Part-time and distance courses should be given a higher priority,thus giving more students the opportunity of financing their own higher education, while utilization of physical facilities should ensure year-round use.

Courses of long duration should be, whenever possible, split up into smaller components so that studying could be interrupted with periods of work, which would not only make it financially easier for the students in a more market-oriented milieu, but also allow for some practical application of newly acquired expertise.

The scope of the grown facility must be clearly and realistically considered in order to properly plan for growth.

The project team

The architects of our region, while as well trained as any, are often considered by the client not to be quite equal to the task of planning and designing something as big and complicated as a university. The result is that foreign firms are often invited to do the job. Those foreign firms are, and reasonably so, chosen for their experience in designing facilities of a similiar nature. Unfortunately, they often apply a number of "stock solutions", perceiving the problem to be mostly of functional or aesthetic nature. However, while this may be the case in the developed world, this is decidedly not so in our region.

The choice of architect, whether local or imported, often leaves much to be desired. Local architects sometimes get government commissions as a result of

a rota system which, while seemingly fair, is often simply a way of avoiding making potentially contentious decisions by the client. The decision is obviously easier in the case of expansion of an existing facility, or where the system has been in existance for long enough to give the local architects a chance to become specialised. When imported architects are commissioned, it is often for reasons of their "star quality", where the chances are that the architects main concern may be to perpetuate this image,rather than to find appropriate solutions to a local problem.

As mentioned above, because of the scale of the undertaking as well as the perceived national importance of the institutions of higher learning, in most cases it is the government that is the client. In addition to the specific disadvantages of having a government ministry or department for a client, where many problems arise out of perceived higher status of a government employee over any other person, all the usual disadvantages of having the client who is not the user are present.

The most negative result of this often less than satisfactory relationship between the architect and the client is usually lack of a coherent brief. Although it is perfectly understandable that there may not be sufficient expertise or experience within the client body to prepare such a document, this lack is very often not recognised or acknoweleged, nor is the necessary expertise allowed to be imported, usually for financial reasons.

As it can be said that a good building is a product of not only a good architect, but a good client and a good relationship between the two, it is most important that this be achieved. Following are some recommendations which we feel would improve the situation in this respect and, hopefully result in appropriate solutions:

The client body should, whenever possible, be composed of not only of the financial backers but also of educational specialists, members of the academic staff, administration, housekeeping, maintenance and students, all of whom should be guided and advised by an independent, accomplished and locally experienced architect/planner. The region has a number of established higher education facilities, whose own planning units employ number of persons fitting this description. In the case of a brand new institution, the academic appointments have usually not yet been made, which makes arriving at a detailed brief without clear competent guidance from experienced academics impossible.

It is often of benefit to have the firm/s of architects selected through a competition for an overall masterplan, with the brief for that competition having been prepared by the client body, as described above. The jury should be composed of selected number of representatives of the client body, with an additional, regionally recognised architect.

The more detailed brief for the individual buildings and external spaces should be developed with the participation of the architect chosen for the master plan, and of future members of the faculty and staff. If such appointments have not yet been made, or if their experience is limited, external specialist consultants should be brought in, though their influence should be moderated by persons with local expertise.

If the scope of the project is too large for the winning architectural firm to handle. the selected firm should be allowed to enter into an association with other practices, preferably with the runners-up in the competition, in order to maintain control over the entire project. This kind

of authority can be given to a practice only if the aims and objectives of the winning master plan are very clearly defined and satisfy an equally carefully designed brief.

Analysis of requirements

Once the brief is clear, the standards and regulations which are appropriate and/or required must be considered and defined. Appropriate standards are a contentious area, and may be particularly difficult to define in ways that reconcile environment, access, hazard, space and fittings with each other and the financial constraints. The issue must, however, be confronted as the concept of appropriateness hinges on these decisions.

The staff employed by our higher education facilities are often recruited in the developed world and bring with them demands for excessively high standards as pre-conditions for their employment. This factor must be taken into consideration.

A particular requirement, because of the substantial residential component typical in the region, is the need for the institutions to function as communities. This function should be recognised and the positive aspects of this feeling of community should and can be reinforced with appropriate planning. What we feel should not be emphasised is the difference between this and all the other existing communities. Exclusivity breeds without any help from the planners. Isolated sites impose notable extra costs in creating an entire social and municipal infrastructure.

Site criteria

Choice of site: Although this decision is usually made at an early stage and for reasons often unrelated to its suitability for the purpose, we feel that it would be an improvement if the brief allowed a choice between several available sites, a situation still possible in our region where large pockets of land are still held either by central or local government. This choice should be well justified, with the quality of the justification being a fairly good indication of the architects' grasp of the overall impact and significance of the proposed development. The brief should be specific about the initial size of the project, its envisaged rate of development and its optimum size. The growth aspect is of particular importance in our situation and should be dealt with decisively in this initial stage.

Use of site. Although the cost of land is still comparatively low, it is a finite resource and as such should not be allowed to be wasted. An optimum density should be arrived at, which on one hand limits the necessity for use of mechanical lifts, while on the other leaves a sufficient amount of open space for light, ventilation and other uses. Our climatic conditions permit extensive use of outdoor spaces, which can be enhanced with a minimum of intervention. The patterns of social interaction also increase the value of open space as a venue for socialising, and such usage should be promoted wherever possibilities exist.

Preparation of brief

As described in the previous section, the brief becomes the single most important input into a succesful design. It should be prepared in several stages with various carefully defined degrees of detail. The amount of research necessary for its sucessful formulation should be foreseen and budgetted for. Any attempted savings at this stage are likely to result in

increased expenditure later.

Although our region does not abound in buildings which have outlived their uses, the idea of using existing buildings, even if already occupied by another institution, should be considered. The advantages seem to outweigh the discomforts with the main benefits being that the actual teaching can begin much earlier than if it had to wait for the completion of the building programme, and that the staffing is completed in time for the staff members to be given their say in the formulation of the detailed requirements for their respective departments.

Services

We are not generally in a position to run sophisticated energy generation schemes for a campus. Universities use the public utilities for electricity, water, drainage and solid waste removal, with the exception of medical training facilities with incinerators. Appropriate here relates more to suitable thermal design and minimising of artificial illumination, as well as to ensuring that there is space and access for easy maintenance of the municipal services. There is a need to design for fault tolerance in situations where services/maintenance are in question.

Design

The architect engaged in developing a brief targetting appropriateness is likely to carry this attitude through to the design stage. The final product should avoid paying mere lip-service to the idea. Application of the idea should also tend to produce some design consistency in the developing campus in reflecting local resources and climate. An example is the initial architecture and planning for the University of Botswana, while a lack of concern shows in recent work on the campus.

Construction and maintenance

Preference should be given to common or popular construction methods, materials and components.

Critical in maintaining academic standards is the ability to obtain spare parts for maintenance and repair of equipment, routine replacement, upkeep and upgrading of plant, utilities, vehicles and equipment, and supplies of necessary consumables. We note the sad report from Ibadan in Nigeria that 'For several months now we have been expected to run a physics laboratory without electricity, perform biology and zoology experiments without water and get accurate readings from microscopes blinded by use and age' as a not uncommon phenomenon.

Conclusion

Africa needs to use its resources far more effectively, and we believe that appropriate development of tertiary education facilities can make a notable contribution.

Ewa Gurney and David Young

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Appendices

Table 1 (6-1)

Table 2 (6-4)

+ NDP graphics

73, 74, 77, 78, 80, 92.

UIA2

IN SEARCH OF THE APPROPRIATE.

A view from Southern Africa.

Introduction

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The notion of appropriateness, although it has been with us as long as the word for it, has only begun to be applied to architecture relatively recently. This is not because we have only now realised that an appropriate thing is better than anything inappropriate, but because our appetite for and ability to produce inappropriate solutions has increased greatly while, at the same time, in parts of the world, inappropriate solutions have become a luxury, which we can no longer afford. The search for the appropriate has not been made any easier by the fact that the complexity resulting from increasing economic technical and cultural interdependence is sometimes beyond the understanding of decision-makers, while the sheer pace of development required imposes on us a timetable in which there is often no room for the research necessary for identifying the appropriate solution.

The above is doubly true for the developing world. Not only has the notion of appropriateness come to us late, but it also often came not as a notion, but as a ready-made "appropriate solution". It is amazing how few people realise that "appropriate solutions" do not travel well.

Although great strides are being made in our region in many aspects of development, the design of higher education facilities seems to pose a particular problem as far as appropriateness is concerned. The reasons for this situation seem to be the following:

1. Our higher education is modelled on an academic world culture, tending to spread from the developed to the developing world. To a relatively unsophisticated public, social function is often associated with built form, and with the buildings of the developed world, being far better illustrated than those in the third world, the image of the desirable and correct facility tends to be the first world model, however inappropriate it may be for our region's climate or economic situation.

2. Governments tend to favour styles and monuments regardless of their efficacy and economy.

3. It is a common fault of clients that they do not understand that architects are trained to solve any design commission; it is a not uncommon fault of architects that they fall into a local rut and cannot rise to the challenge of an uncommon commission. A resulting tendency is for a regional client to call in external experts, possibly selected because of their media stardom. Such experts not unusually arrive with packages or prejudices which exclude the appropriate from the list of priorities.

4. Regional architects, belonging to a social elite, often find it quite difficult to enter into dialogue with economists regarding the resources and characteristics of our region, while at the same time being as tempted as any to design and build monuments.

5.

The context

The region

Higher education facilities are usually commissioned by the Governments, whose desire to build monuments to themselves is certainly not without precedent all over the world. National universities, like national airlines, are often a matter of national pride more than national necessity. Some of the educational needs of our region could be much more economically satisfied at a regional level than at a national one. Other political and often tribal considerations override real needs.

The societies

Objectives

Choice of social model. Various historical and social phenomena have created a number of precedents, thorough understanding of which is necessary in deciding whether any one of those is applicable, or whether the problem to be solved is without precedent. This, in turn, calls for an in depth understanding of the problem i.e. the role that is, should be and could be played by the institutions of higher learning in our society. As this is to a certain extent a political decision, politicians should be exepcted to participate in its making. Again, their influence should be moderated by those professionally involved in social issues, as well as those knowledgable in the mechanics of urban development.

Resources

While the pace of development considered necessary in the developed countries is dictated by population growth, unemployment rate and the rate of inflation, all of which are relatively low, combined with the popular desire to improve individual economic circumstances which, comparatively speaking, is more on the level of wants rather than needs, this pace can usually be sustained given the resources available, and any temporary setbacks rarely produce truely catastrophic results.

This is decidedly not the case in the countries of the developing world. There, the pace required is multiplied by a much higher population growth and the need to satisfy what are the most basic of human needs.The additional drag on the pace of development required is exerted by the often unpredictable climatic conditions, undeveloped or undervalued natural resources and, above all, underdeveloped human resources.

c. inflation rate

Priorities

Although the advantages of appropriate solutions seem self-evident, we would like to highlight the penalties imposed on our region by this often unconscious preference for the inappropriate ones. These costs, while mostly hidden, are becoming unacceptable to our resource starved economies and social systems.

1. Proportionally high expenditure on higher education deprives other, often more necessary levels of education of the necessary funding.
2. Within higher education, the proportionally high expenditure on buildings depletes higher education budget with the result that there is often insufficient funds for the actual proper running of the facility.

3. Inappropriate design with regard to climatic controls often commits the institutions to ever mounting costs of purchasing, running, maintaining and replacing of mechanical climate controlls, while a lot of unnecessary use of sophisticated materials, construction methods and finishes makes it necessary to employ specialised or highly skilled construction and maintenance labour, which often needs to be imported and which, even if locally available, does not come cheap.
4. The widening gap between the rich and the poor, while acceptable to most on the rich side, is not part of our Governments stated aims and objectives, and yet it can be seen as a result of the continuous over-provision for the needs of the upper strata of our societies.
5. The graduates of higher education institutions often either leave for richer countries in search of the high standard, to which they have become accustommed, or stay on only to take up what they think is their rightful place among the country's new aristocracy.

Education

In this context it is easy to see why the development of education takes precedence over most other components of our region's development plans,as well as why the resources which can be allocated for it fall far short of what is needed.

Higher education has a particularily important role to play and is seen as the "engine which pulls the train". While not in any way disagreeing with the basic logic of this approach, we feel that better use of resources which could be achieved in the sphere of higher education could have an important impact on education as a whole. If, through increasd funds, better education was provided at primary and secondary levels, as well as vocational training, not only would there be an improvement in the quality of higher education, but also the "train" could begin to be partly self-propelled.

The social benefits of improved primary and secondary education are particularily important in a region undergoing such swift and profound economic and social change. The population's ability to become more than passive spectators has to be improved and understanding of the forces governing peoples lives has to be fostered if culture and self-esteem are to be preserved and developed.

The priority assigned to various fields of the economic and social development process should be reflected in the academic planning. What should, however, also be taken into account is the fact that as our region does not exist in isolation and that the process of building up of our higher education system is, of necessity, a very gradual one. External help is and will continue to be needed for many years to come. Specialists in subjects with a relatively limited social or cultural content can continue to be imported form other regions for a long time to come without any drastically negative effects, while others, whose field of expertise is closely related to local conditions, such as architecture, should be trained locally.

Coincidentally, this also seems to make good economic sense, as many facilities devoted to training of students in advanced sciences and technology are also the most expensive ones in terms of specialised buildings and equipment.

Programmes for regional co-operation in the field of higher education shoul be developed or strengthened, thus removing the unnecessary burden of providing a full range of higher educational opportunities on every individual

country.

Courses should be provided that can make use of the existing institutions, whose potential for training and education should be maximised.

Part-time courses should be given a higher priority,thus giving more students the opportunity of financing their own higher education.

Courses of long duration should be, whenever possible, split up into smaller components so that studying could be interrupted with periods of work, which would not only make it financially easier for the students, but also allow for some practical application of newly aquired expertise.

The tertiary facility

Academic plan

The staff employed by our higher education facilities are often recruited in the developed world and bring with them demands for excessively high standards as pre-conditions for their employment.

The project team

The architects of our region, while possibly as well trained as any, are often considered by the client not to be quite equal to the task of planning and designing something as big and complicated as a university, with a result that foreign firms are often invited to do the job. Those foreign firms are, and reasonably so, chosen for their experience in designing facilities of a similiar nature. Unfortunately, they often apply a number of "stock solutions", perceiving the problem to be mostly of functional or aesthetic nature. However, while this may be the case in the Developed world, this is decidedly not so in our country.

As mentioned before, because of the scale of the undertaking as well as the perceived national importance of the institutions of higher learning, in most cases it is the governmant that is the client.

In addition to the specific disadvantages of having a government ministry or department for a client, where many problems arise out of perceived higher status of any government employee over any other person,all the usuall disadvantages of having the client who is not the user are present.

The most negative result of this often less than satisfactory relationship between the architect and the client is usually lack of a coherent brief. Although it is perfectly understandable that there may not be sufficient expertise or experience within the client body to prepare such a document, this lack is very often not recognised or acknoweleged, nor is the necessary expertise allowed to be imported, usually for financial reasons.

In the case of brand new institution, which is being planned, the academic appointments have usually not yet beein made, which makes arriving at a detailed brief impossible.

The choice of architect, whether local or imported, often leaves much to be desired. Local architects sometimes get government commissions as a result of a rota system which, while seemingly fair, is often simply a way of avoiding making potentially contentious decisions by the client. The decision is obviously easier in the case of expansion of an existing facility, or where

the system has been in existance for long enough to give the local architects a chance to become specialised. When imported architects are commissioned, it is often for reasons of their "star quality", where the chances are that the architects main concern may be to perpetuate this image,rather than to find appropriate solutions to a local problem.

As it can be said that a good building is a product of not only a good architect, but a good client and a good relationship between the two, it is most important that this be achieved. Following are some recommendations which we feel would improve the situation in this respect and, hopefully result in good i.e. appropriate solutions:

1. The client body should, whenever possible, be composed of not only of the financial backers but also of educational specialists, members of the academic staff, administration, housekeeping, maintenance and students, all of whom should be quided and advised by an independent, possibly accomplished and locally experienced architect/planner. The region has a number of established higher education facilities, whose own planning units employ number of persons fitting this description.

2. The firm/s of architects should be selected through a competition for an overall masterplan, with the brief for that competition having been prepared by the client body, as describrd previously. The jury should be composed of selected number of representatives of the client body, with an additional, regionally recognised architect.

3. The more detailed brief for the individual buildings and external spaces should be developed with the participation of the architect chosen for the master plan, and of future members of the faculty and staff. If such appointments have not yet been made, or if their experience is limited, external specialist consultants should be brought in, though their influence should be moderated by persons with local expertise.

4. If the scope of the project is too large for any one architectural firm to handle. it should be allowed to enter into an association with other practices, preferably with the runners-up in the competition, in order to maintain control over the entire project. This kind of authority can be given to a practice only if the aims and objectives of the winning master plan are very clearly defined and satisfy an equally carefully designed brief.

Analysis of requirements

Functional analysis. .....Our insitutions of higher learning, by virtue of having a substantial residential component tend to function as communities. This function should be recognised and the positive aspects of this feeling of community should and can be reinforced with appropriate planning. What we feel should not be emphesised is the difference between this and all the other existing communities. Exclusivity breeds without any help from the planners.

Site criteria

1. Choice of site. Although this decision is usually made at an earlier stage and for reason often unrelated to the proposed site's suitability for the purpose, we feel that it would be an improvement if the brief required the competition entrants to make a choice between several sites, which could be available, a situation still possible in our region where large pockets of land are still beinh held either by the central or local government. This

choice should be well justified, with the quality of the justification being a firly good indication of the architects' grasp of the overall impact and significance of the proposed development. The brief should be specific about the initial size of the project, its envisaged rate of development and its final or optimum size. The growth aspect is of particular importance in our situation and should be dealt with decisively in this initial stage.

Use of site. Although the cost of land is still comparatively low, it is a finite resource and as such should not be allowed to be wasted. An optimum density should be arrived at, which on one hand limits the necessity for use of mechanical lifts, while on the other leaves a sufficient amount of open space for light, ventilation and other uses.

Our climatic conditions permit extensive use of outdoor spaces, which can be enhanced with only minimum of intervention. This makes considerations such as comfortable walking distances quite specific to our situation. The existing patterns of social interaction also increase the value of open space as a venue for socialising. Full use should be made of any possibilities thus afforded.

Preparation of brief

As described in the previous section, the brief becomes the single most important input into a succesfull design. It should be prepared in several stages with various, carfully defined degrees of detail. The amount of research necessary for its sucessfull formulation should be forseen and budgeted for. Any attempted savings at this stage are likely to result in increased expenditure later.

Potential use of existing buildings. Although our region does not abound in buildings which have outlived their uses, the idea of using existing buildings, even if already occupied by another institution is being used. The advantages seem to outweigh the discomforts with the main benefits being: a. the actual teaching can begin much earlier than if it had to wait for the completion of the building programme, and

b. the staffing is completed in time for the staff members to be given their say in the formulation of the detailed requirements for their respective departments.

Material consumption

Design

Design considerations which should be derived from the brief are:

a. spatial
b. financial, including running costs and cost of maintenance
c. functional
d. site-related
e. energy use-related
f. growth-related

What the brief cannot try to dictate is:

a. aesthetics

a. cost
b. energy efficiency
c. ease of maintenance
d. aesthetics

Construction

Maintenance

Conclusion

SADCHA file

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Sort out margins for headings

UIA2

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Introduction

Appropriate: 'suitable' or 'proper' from the Latin root 'own'.

The notion of appropriateness, although it has been with us as long as the word for it, has only begun to be applied to architecture relatively recently. This is not because we have only now realised that an appropriate thing is better than anything inappropriate, but because our appetite for and ability to produce inappropriate solutions has increased greatly while, at the same time, in parts of the world, inappropriate solutions have become a luxury, which we can no longer afford. The search for the appropriate has not been made any easier by the fact that the complexity resulting from increasing economic technical and cultural interdependence is sometimes beyond the understanding of decision-makers, while the sheer pace of development required imposes on us a timetable in which there is often no room for the research necessary for identifying the appropriate solution.

The above is doubly true for the developing world. Not only has the notion of appropriateness come to us late, but it also often came not as a notion, but as a ready-made "appropriate solution". It is amazing how few people realise that "appropriate solutions" do not travel well.

Although great strides are being made in our region in many aspects of development, the design of higher education facilities seems to pose a particular problem as far as appropriateness is concerned. The reasons for this situation seem to be the following:

Our higher education is modelled on an academic world culture, tending to spread from the developed to the developing world. To a relatively unsophisticated public, social function is often associated with built form, and with the buildings of the developed world, being far better illustrated than those in the third world, the image of the desirable and correct facility tends to be the first world model, however inappropriate it may be for our region's climate or economic situation.

Governments tend to favour styles and monuments regardless of efficacy and economy.

It is a common fault of clients that they do not understand that architects are trained to solve any design commission; it is a not uncommon fault of architects that they fall into a routine rut and cannot rise to the challenge of an uncommon commission. A resulting tendency is for a regional client to call in external experts, possibly selected because of their media stardom. Such experts not unusually arrive with packages or prejudices which exclude the appropriate from the true list of priorities.

do not

Architects often find it quite difficult to enter into dialogue with economists regarding the resources and characteristics of our region, while at the same time being as tempted as any to ~~design and build~~ create monuments.

The context

The region

The ten SADC countries define the southern Africa region for the purposes of this discussion. In extent it is *km east-west and *km north-south, lying between the * and * parallels. The combined population is of the order of *. The geography varies from tropical forest to savannah to bushveld to semidesert to full desert, generally in the form of extensive plains, some of which are cut by considerable rivers.

Politically, there presently appears to be a spirit of cooperation to a greater degree than previously, which may lead to more genuine economic links being permitted. The main benefit of the SADCC phase has been to considerably ease communications and institute technical cooperation between the states.

This region has a varied sociopolitical situation ranging from vicious civil wars to peace and prosperity, though many of the worst political issues are presently in process of being resolved. Regression in development is beginning to show signs of slowing overall, with the prospect of a new emphasis on free economies leading to improvement in per capita income not just based on exporting natural resources. It is to be hoped that the present move away from kleptocracy takes hold, and that politicians cannot avoid accountability for their actions. One area of concern remains health, with Zambia in particular suffering severly from the present AIDS epidemic; doomsayers have predicted resulting depopulation on a large scale.

The present average gnp/capita in the region is USD*, but national averages range from * to *, and with a state like Botswana, the range is from * to *. Overall, * are illiterate, and rates of schooling completed are of the order of * primary, * secondary academic & technical and * tertiary academic, vocational and technical. If one sets developed-world rates against these, our eleven universities for * students could change to a university system for * students.

Higher education facilities are usually commissioned by the state governments, whose desire to build monuments to themselves is certainly not without precedent all over the world. While we accept the idea of the necessary monument, the scale and nature of national universities, like national airlines, is often a matter of pride rather than necessity. Many of the educational needs of our region could be more economically satisfied at a regional level. Political and tribal considerations also have a history of overriding real needs.

The societies

We are simplifying greatly in order to be brief. The full background will not be attempted here, but the majority of precolonial inhabitants stem from groups which appear to have expanded south from roundabout present Cameroun, settling and developing related but distinct languages and cultures as far as parts of South Africa, overlaying or bypassing the Khoisan who were the first known modern inhabitants. These tribes and their kingdoms existed, rose, fell, split and developed their societies over thousands of years.

Following the expansion of European interests and conflicts, the area was colonised, crystallizing the state boundaries as they now exist. Most of the states incorporate multiple tribes with their own languages and dialects. The common language for all but Angola and Mozambique becoming English, those two countries using Portuguese as their common language. Most of the region

emerged from the colonial period with democratic structures, many of which later became ideology-ridden, kleptocratic or both. Angola and Mozambique were the exceptions, both setting off into civil war soon after independence. War and incompetence have hit the regional economy hard, but the past two years have seen economic rationalization and a redirection towards democracy in the region.

Objectives

Botswana is used an a reference, but note that its access to funding is exceptional in the region.

For Botswana, the defined national objectives are democracy, development, self-reliance and unity. Planning of development has the objectives of sustained development, rapid growth, economic independence and social justice. While short term fluctuations in emphasis occur, the aim is to balance all of these in the longer term.

Various historical and social phenomena have created a number of models, thorough understanding of which is necessary in deciding whether any one of those is applicable, or whether the problem to be solved is without precedent. This, in turn, calls for an in depth understanding of the problem i.e. the role that is, should be and could be played by the institutions of higher learning in our society. As this is to a certain extent a political decision, politicians should be expected to participate in its making. Again, their influence should be moderated by those professionally involved in social issues, as well as those knowledgable in the mechanics of urban development.

Resources

While the pace of development considered necessary in the developed countries is dictated by population growth, unemployment rate and the rate of inflation, all of which are relatively low, combined with the popular desire to improve individual economic circumstances, more on the level of wants than needs, this pace can usually be sustained given the resources available, and temporary setbacks rarely produce catastrophic results.

This is decidedly not the case in the countries of the developing world. There, the pace required is multiplied by a high population growth rate (*%) and the need to satisfy the most basic of human Additional drag on the pace of development is exerted by the often unpredictable climatic conditions, undeveloped or undervalued natural resources and, above all, underdeveloped human resources.

c. inflation rate

Existing economic pattern here

Forecast at NDP 7:

The population of Botswana is expected to double in the next 25 years, the majority living in urban areas, although the rate of growth should diminish, thereby increasing the proportion of the population available for economic activity. Households are expected to become less reliant on government, and private sector activity is anticipated to make a greater contribution to growth and diversification in production and the financial areas of the economy. It is anticipated that expansion of education and training will lead to a situation where there is a surplus of most skills.

Aims for consideration

Improve income distribution and self-reliance of the public, freeing state resources and allowing real cost recovery. Reducing population growth and increasing productivity to boost gnp/capita. Conside rnew policies to foster balanced utilisation of natural resources. Export promotion for products rather than basic mineral exports. Make rural areas accessible to allow opportunities beyond farming. Financial sector to be developed to provide funding in urban and rural areas.

Priorities

NDP7 notes here
For Botswana, enjoying a burst of income from diamonds during the previous planning period, NDP7 notes that a gap emerged between the size of the development programme and government's ability to support it adequately. Recurrent expenditure and numbers of manpower in place had not risen sufficiently to meet the needs created in the new developments.

Although the advantages of appropriate solutions seem self-evident, we would like to highlight the penalties imposed on our region by this often unconscious preference for the inappropriate ones. These costs, while mostly hidden, are becoming unsupportable to our resource-starved economies and social systems.

Proportionally high expenditure on higher education deprives other, often more necessary levels of education of the necessary funding.
* data from NDP

Within higher education, the proportionally high expenditure on buildings depletes higher educations budget with the result that there are insufficient funds for the proper running of the facility.
* data

Inappropriate design with regard to climatic controls often commits the institutions to ever mounting costs of purchasing, running, maintaining and replacing of mechanical climate controlls, while a lot of unnecessary use of sophisticated materials, construction methods and finishes makes it necessary to employ specialised or highly skilled construction and maintenance labour, which often needs to be imported and which, even if locally available, does not come cheap.

The widening gap between the rich and the poor, while acceptable to most on the rich side, is not part of our Governments stated aims and objectives, and yet it can be seen as a result of the continuous over-provision for the needs of the upper strata of our societies.
* data from NDP

The graduates of higher education institutions often either leave for richer countries in search of the high standard, to which they have become accustomed, or stay on only to take up what they think is their rightful place among the country's new aristocracy. Some also show signs of becoming permanent students highly qualified but not contributing to the society.

Education

Typically, schooling in the region comprises around 7 years for primary and five years for secondary level. We consider the saturation levels (ie percentage of age group completing that level) for years 10-12 to be about 65%, and for year 12 only to be about 50%. Technical training for those aged 15-19 has a saturation level of around 20% of age group. The levels indicated relate to South African statistics up to 1975; we consider this a fair basis for comparison on realistic aspirations of development.

Tertiary studies include Universities, Polytechnics and various high-level vocational training colleges.

In Botswana, a supplementary Pre-entry Science course is required for those proceeding to courses requiring good science and maths backgrounds, and two years university study in Botswana is required prior to proceeding abroad for courses not available in Botswana.

For Botswana, 1989/91 saw about 90% receiving primary education, 60% secondary, university 1989/90 enrolment including pre-entry science was 2700; 1997 target is 6500.

* data from NDP

In this context it is easy to see why the development of education takes precedence over most other components of our region's development plans,as well as why the resources which can be allocated for it fall far short of what is needed.

Higher education has a particularily important role to play and is seen as the "engine which pulls the train". While not in any way disagreeing with the basic logic of this approach, we feel that better use of resources which could be achieved in the sphere of higher education could have an important impact on education as a whole. If, through increasd funds, better education was provided at primary and secondary levels, as well as vocational training, not only would there be an improvement in the quality of higher education, but also the "train" could begin to be partly self-propelled.

The social benefits of improved primary and secondary education are particularily important in a region undergoing such swift and profound economic and social change. The population's ability to become more than passive spectators has to be improved and understanding of the forces governing peoples lives has to be fostered if culture and self-esteem are to be preserved and developed.

The priority assigned to various fields of the economic and social development process should be reflected in the academic planning. What should, however, also be taken into account is the fact that as our region does not exist in isolation and that the process of building up of our higher education system is, of necessity, a very gradual one. External help is and will continue to be needed for many years to come. Specialists in subjects with a relatively limited social or cultural content can continue to be imported form other regions for a long time to come without any drastically negative effects, while others, whose field of expertise is closely related to local conditions, such as architecture, should be trained locally.

Coincidentally, this also seems to make good economic sense, as many facilities devoted to training of students in advanced sciences and technology are also the most expensive ones in terms of specialised buildings and equipment.

Programmes for regional co-operation in the field of higher education should be developed or strengthened, thus removing the unnecessary burden of providing a full range of higher educational opportunities on every individual country.

Courses should be provided that can make use of the existing institutions, whose potential for training and education should be maximised.

Part-time courses should be given a higher priority,thus giving more students the opportunity of financing their own higher education.

Courses of long duration should be, whenever possible, split up into smaller components so that studying could be interrupted with periods of work, which would not only make it financially easier for the students, but also allow for some practical application of newly aquired expertise.

←The tertiary facility

←Academic plan

The staff employed by our higher education facilities are often recruited in the developed world and bring with them demands for excessively high standards as pre-conditions for their employment.

* more words

The project team

The architects of our region, while possibly as well trained as any, are often considered by the client not to be quite equal to the task of planning and designing something as big and complicated as a university. The result is that foreign firms are often invited to do the job. Those foreign firms are, and reasonably so, chosen for their experience in designing facilities of a similiar nature. Unfortunately, they often apply a number of "stock solutions", perceiving the problem to be mostly of functional or aesthetic nature. However, while this may be the case in the Developed world, this is decidedly not so in our country.

As mentioned before, because of the scale of the undertaking as well as the perceived national importance of the institutions of higher learning, in most cases it is the government that is the client.

In addition to the specific disadvantages of having a government ministry or department for a client, where many problems arise out of perceived higher status of any government employee over any other person,all the usual disadvantages of having the client who is not the user are present.

The most negative result of this often less than satisfactory relationship between the architect and the client is usually lack of a coherent brief. Although it is perfectly understandable that there may not be sufficient expertise or experience within the client body to prepare such a document, this lack is very often not recognised or acknoweleged, nor is the necessary expertise allowed to be imported, usually for financial reasons.

In the case of a brand new institution being planned, the academic appointments have usually not yet been made, which makes arriving at a detailed brief * impossible.

The choice of architect, whether local or imported, often leaves much to be desired. Local architects sometimes get government commissions as a result of a rota system which, while seemingly fair, is often simply a way of avoiding making potentially contentious decisions by the client. The decision is obviously easier in the case of expansion of an existing facility, or where the system has been in existance for long enough to give the local architects a chance to become specialised. When imported architects are commissioned, it is often for reasons of their "star quality", where the chances are that the architects main concern may be to perpetuate this image,rather than to find appropriate solutions to a local problem.

As it can be said that a good building is a product of not only a good architect, but a good client and a good relationship between the two, it is most important that this be achieved. Following are some recommendations which we feel would improve the situation in this respect and, hopefully result in good i.e. appropriate solutions:

The client body should, whenever possible, be composed of not only of the financial backers but also of educational specialists, members of the academic staff, administration, housekeeping, maintenance and students, all of whom should be quided and advised by an independent, possibly accomplished and locally experienced architect/planner. The region has a number of established higher education facilities, whose own planning units employ number of persons fitting this description.

The firm/s of architects should be selected through a competition for an overall masterplan, with the brief for that competition having been prepared by the client body, as describrd previously. The jury should be composed of selected number of representatives of the client body, with an additional, regionally recognised architect.

The more detailed brief for the individual buildings and external spaces should be developed with the participation of the architect chosen for the master plan, and of future members of the faculty and staff. If such appointments have not yet been made, or if their experience is limited, external specialist consultants should be brought in, though their influence should be moderated by persons with local expertise.

If the scope of the project is too large for any one architectural firm to handle. it should be allowed to enter into an association with other practices, preferably with the runners-up in the competition, in order to maintain control over the entire project. This kind of authority can be given to a practice only if the aims and objectives of the winning master plan are very clearly defined and satisfy an equally carefully designed brief.

Analysis of requirements

Functional analysis.

Space structuring
- Growth pattern
- Room size frequencies
- Noise zoning
- Proximity chart
- Space requirement generation

Circulation & access
- Disabled

Environment

Thermal/ventilation, sound, lighting and hazard criteria
Services
Fittings
Building & design control regulations: applicability versus cost

Our institutions of higher learning, by virtue of having a substantial residential component tend to function as communities. This function should be recognised and the positive aspects of this feeling of community should and can be reinforced with appropriate planning. What we feel should not be emphasised is the difference between this and all the other existing communities. Exclusivity breeds without any help from the planners.

Site criteria

1. Choice of site. Although this decision is usually made at an early stage and for reasons often unrelated to its suitability for the purpose, we feel that it would be an improvement if the brief required the competition entrants to make a choice between several sites, which could be available, a situation still possible in our region where large pockets of land are still being held either by the central or local government. This choice should be well justified, with the quality of the justification being a fairly good indication of the architects' grasp of the overall impact and significance of the proposed development. The brief should be specific about the initial size of the project, its envisaged rate of development and its final or optimum size. The growth aspect is of particular importance in our situation and should be dealt with decisively in this initial stage.

Use of site. Although the cost of land is still comparatively low, it is a finite resource and as such should not be allowed to be wasted. An optimum density should be arrived at, which on one hand limits the necessity for use of mechanical lifts, while on the other leaves a sufficient amount of open space for light, ventilation and other uses.

Our climatic conditions permit extensive use of outdoor spaces, which can be enhanced with a minimum of intervention. This makes considerations such as comfortable walking distances quite specific to our situation. The existing patterns of social interaction also increase the value of open space as a venue for socialising. Full use should be made of any possibilities thus afforded.

Preparation of brief

As described in the previous section, the brief becomes the single most important input into a succesful design. It should be prepared in several stages with various carefully defined degrees of detail. The amount of research necessary for its sucessful formulation should be foreseen and budgetted for. Any attempted savings at this stage are likely to result in increased expenditure later.

Potential use of existing buildings. Although our region does not abound in buildings which have outlived their uses, the idea of using existing buildings, even if already occupied by another institution is being used. The advantages seem to outweigh the discomforts with the main benefits being: a. the actual teaching can begin much earlier than if it had to wait for the completion of the building programme, and

b. the staffing is completed in time for the staff members to be given their say in the formulation of the detailed requirements for their respective departments.

Material consumption

We are not generally in a position to run sophisticated energy generation schemes. Universities use the public utilities for electricity, water, drainage and solid waste removal, with the exception of medical training facilities with incinerators.

* words here

Design

Design considerations which should be derived from the brief are:

a. spatial
b. financial, including running costs and cost of maintenance
c. functional
d. site-related
e. energy use-related
f. growth-related

What the brief cannot try to dictate is:

a. aesthetics

a. cost
b. energy efficiency
c. ease of maintenance
d. aesthetics

Design criteria

Materials

Construction

* words here

Maintenance

* words here < frank

Conclusion

* words here

References / Appendices

Ewa Gurney and David Young

cc: SADCC UA
BIDP AI
IAZ

UIA2
IN SEARCH OF THE APPROPRIATE.

A view from Southern Africa.

Introduction

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The notion of appropriateness, although it has been with us as long as the word for it, has only begun to be applied to architecture relatively recently. This is not because we have only now realised that an appropriate thing is better than an inappropriate one, but because our appetite for and ability to produce inappropriate solutions has increased greatly while, at the same time, in parts of the world, inappropriate solutions have become a luxury which we can no longer afford. The search for the appropriate has not been made any easier by the fact that the complexity resulting from increasing economic technical and cultural interdependence is sometimes beyond the understanding of decision-makers, while the sheer pace of development required imposes on us a timetable in which there is often no room for the research necessary for identifying the appropriate solution.

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Our higher education is modelled on an academic world culture, tending to spread from the developed to the developing world. To a relatively unsophisticated public, social function is often associated with built form, and with the buildings of the developed world, being far better illustrated than those in the third world, the image of the desirable and correct facility tends to be the first world model, however inappropriate it may be for our region's climate or economic situation.

Governments tend to favour styles and monuments regardless of efficacy and economy,

It is a common fault of clients that they do not understand that architects are trained to solve any design commission; it is a not uncommon fault of architects that they fall into a routine rut and cannot rise to the challenge of an uncommon commission. A resulting tendency is for a regional client to call in external experts, possibly selected because of their media stardom. Such experts not unusually arrive with packages or prejudices which exclude the appropriate from the true list of priorities.

Architects often find it quite difficult to enter into dialogue with economists regarding the resources and characteristics of our region, while at the same time being as tempted as any to design and build monuments.

The context

The region

The ten SADC countries define the southern Africa region for the purposes of this discussion, but we also make reference to data for subsaharan Africa and Botswana. The states in the SADC region are fairly new, and have tended to have their governments control and direct their economies and educational systems. Past political instability has hampered progress. There presently appears to be a spirit of cooperation to a greater degree than previously, which may lead to more genuine economic links being permitted. The region has low gnp, and undeveloped human resources are the main reason, despite substantial natural resources.

Education

Typically, schooling in the region comprises around 7 years for primary and five years for secondary level. Tertiary studies include Universities, Polytechnics and various high-level vocational training colleges. Higher education is seen as being of paramount importance for Africa's future, Subsaharan university enrollments have grown from 1200 in 1960 to 440 000 in 1983, but present indications are that the present structure is unsuitable and the efficacy of the systems is questionable.

Resources

The region is characterised by unpredictable climatic conditions, undeveloped or undervalued natural resources and, above all, underdeveloped human resources.

Teachers are generally in short supply; staff development in Africa at tertiary level is lagging badly. Facilities, funds and staffing are generally inefficiently structured.

Given this, the pace of development required, multiplied by a 3% population growth rate and the need to satisfy the most basic of human needs is not being achieved, despite the fact that certain states have excessive numbers of graduates in certain fields.

Targets

For Botswana, the defined national objectives are democracy, development, self-reliance and unity. Planning of development has the objectives of sustained development, rapid growth, economic independence and social justice. While short term fluctuations in emphasis occur, the aim is to balance all of these in the longer term. This is not untypical of states in the region.

In the educational sphere, recent deterioration is reducing the capacity of Africa's tertiary institutions to contribute to regional development. These establishments must have their quality restored and then improved to allow the region to make its own best uses of the rapid advance of science and technology. Most states, however, will first need to rearrange their systems to fit present changed economic circumstances before moving on to improvements. Institutions, campuses, departments and programmes need to be

combined into larger, more viable units. Staffing, in particular academic but also non-academic, needs to be reduced while upgrading levels of relevant training and experience. Student numbers need to be stabilised by increasing entry and performance requirements while introducing the notion of real costs for board and lodging, this being mitigated for genuine cases of need. From this, a sound base would be established to expand necessary graduate numbers and the scope of the research and community activities presently struggling to survive. The utilization of existing facilities and the planning of new ones is an integral part of such restructuring.

Although the advantages of appropriate solutions seem self-evident, we would like to highlight the penalties imposed on our region by this often unconscious preference for the inappropriate ones. These costs, while mostly hidden, are becoming unsupportable to our resource-starved economies and social systems.

Proportionally high expenditure on higher education deprives other, often more necessary levels of education of the necessary funding.

~~* data from NDP~~

Within higher education, the proportionally high expenditure on buildings depletes higher educations budget with the result that there are insufficient funds for the proper running of the facility.

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Inappropriate design with regard to climatic controls often commits the institutions to ever mounting costs of purchasing, running, maintaining and replacing of mechanical climate controlls, while a lot of unnecessary use of sophisticated materials, construction methods and finishes makes it necessary to employ specialised or highly skilled construction and maintenance labour, which often needs to be imported and which, even if locally available, does not come cheap.

The widening gap between the rich and the poor, while acceptable to most on the rich side, is not part of our Governments stated aims and objectives, and yet it can be seen as a result of the continuous over-provision for the needs of the upper strata of our societies.

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The graduates of higher education institutions often either leave for richer countries in search of the high standard, to which they have become accustomed, or stay on only to take up what they think is their rightful place among the country's new aristocracy. Some also show signs of becoming permanent students highly qualified but not contributing to the society.

The tertiary facility

Adverse economic conditions bring the need for appropriate solutions into sharp relief. The search for such solutions should be equally rigorous at each level of planning.

Academic plan

Various historical and social phenomena have created a number of models, thorough understanding of which is necessary in deciding whether any one of

those is applicable, or whether the project is without precedent. This, in turn, calls for an in-depth understanding of the context i.e. the role that is, should be and could be played by the institutions of higher learning in our society. As this is to a certain extent a political decision, politicians should be expected to participate in its making. Their influence should be moderated by those professionally involved in academic, social and related developmental issues.

Higher education has a particularily important role to play in the society, and is seen as the "engine which pulls the train". While not in any way disagreeing with the basic logic of this approach, we feel that better use of resources in the sphere of higher education could have an important impact on education as a whole. If, through increased funds, better education was provided at primary and secondary levels, as well as better vocational training, not only would there be an improvement in the quality of higher education, but also the "train" could begin to be partly self-propelled.

The social benefits of improved primary and secondary education are particularily important in a region undergoing such swift and profound economic and social change. The population's ability to become more than passive spectators has to be improved and understanding of the forces governing peoples lives has to be fostered if culture and self-esteem are to be preserved and developed.

The priority assigned to various fields of the economic and social development process should be reflected in the academic planning in order to correct present imbalances. Also to be taken into account is the fact that our region does not exist in isolation and that the process of building up of our higher education system is, of necessity, a very gradual one. External help is and will continue to be needed for many years to come. Specialists in subjects with a relatively limited social or cultural content can continue to be imported from other regions for a long time to come without any drastically negative effects, while others, whose field of expertise is closely related to local conditions, such as architecture, should be trained locally.

Programmes for regional co-operation in the field of higher education should be developed or strengthened, thus removing the unnecessary burden of providing a full range of higher educational opportunities on every individual country. Consideration must also be given to rationalising existing facilities, departments and teaching programmes to improve their viability.

Courses should be provided that can make use of existing employers, whose potential for training and education should be maximised.

Part-time and distance courses should be given a higher priority,thus giving more students the opportunity of financing their own higher education, while utilization of physical facilities should ensure year-round use.

Courses of long duration should be, whenever possible, split up into smaller components so that studying could be interrupted with periods of work, which would not only make it financially easier for the students in a more market-oriented milieu, but also allow for some practical application of newly acquired expertise.

The scope of the grown facility must be clearly and realistically considered in order to properly plan for growth.

The project team

The architects of our region, while as well trained as any, are often considered by the client not to be quite equal to the task of planning and designing something as big and complicated as a university. The result is that foreign firms are often invited to do the job. Those foreign firms are, and reasonably so, chosen for their experience in designing facilities of a similiar nature. Unfortunately, they often apply a number of "stock solutions", perceiving the problem to be mostly of functional or aesthetic nature. However, while this may be the case in the developed world, this is decidedly not so in our region.

The choice of architect, whether local or imported, often leaves much to be desired. Local architects sometimes get government commissions as a result of a rota system which, while seemingly fair, is often simply a way of avoiding making potentially contentious decisions by the client. The decision is obviously easier in the case of expansion of an existing facility, or where the system has been in existance for long enough to give the local architects a chance to become specialised. When imported architects are commissioned, it is often for reasons of their "star quality", where the chances are that the architects main concern may be to perpetuate this image,rather than to find appropriate solutions to a local problem.

As mentioned above, because of the scale of the undertaking as well as the perceived national importance of the institutions of higher learning, in most cases it is the government that is the client. In addition to the specific disadvantages of having a government ministry or department for a client, where many problems arise out of perceived higher status of a government employee over any other person, all the usual disadvantages of having the client who is not the user are present.

The most negative result of this often less than satisfactory relationship between the architect and the client is usually lack of a coherent brief. Although it is perfectly understandable that there may not be sufficient expertise or experience within the client body to prepare such a document, this lack is very often not recognised or acknoweleged, nor is the necessary expertise allowed to be imported, usually for financial reasons.

As it can be said that a good building is a product of not only a good architect, but a good client and a good relationship between the two, it is most important that this be achieved. Following are some recommendations which we feel would improve the situation in this respect and, hopefully result in appropriate solutions:

The client body should, whenever possible, be composed of not only of the financial backers but also of educational specialists, members of the academic staff, administration, housekeeping, maintenance and students, all of whom should be guided and advised by an independent, accomplished and locally experienced architect/planner. The region has a number of established higher education facilities, whose own planning units employ number of persons fitting this description. In the case of a brand new institution, the academic appointments have usually not yet been made, which makes arriving at a detailed brief without clear competent guidance from experienced academics impossible.

It is often of benefit to have the firm/s of architects selected through a competition for an overall masterplan, with the brief for that competition having been prepared by the client body, as described above. The jury should be composed of selected number of representatives of the client body, with an additional, regionally recognised architect.

The more detailed brief for the individual buildings and external spaces should be developed with the participation of the architect chosen for the master plan, and of future members of the faculty and staff. If such appointments have not yet been made, or if their experience is limited, external specialist consultants should be brought in, though their influence should be moderated by persons with local expertise.

If the scope of the project is too large for the winning architectural firm to handle, the selected firm should be allowed to enter into an association with other practices, preferably with the runners-up in the competition, in order to maintain control over the entire project. This kind of authority can be given to a practice only if the aims and objectives of the winning master plan are very clearly defined and satisfy an equally carefully designed brief.

Analysis of requirements

Once the brief is clear, the standards and regulations which are appropriate and/or required must be considered and defined. Appropriateness here is a contentious area, and may be particularly difficult to define in ways that reconcile environment, access, hazard, space and fittings with each other and the financial constraints.

The staff employed by our higher education facilities are often recruited in the developed world and bring with them demands for excessively high standards as pre-conditions for their employment. This factor must be taken into consideration.

A particular requirement, because of the substantial residential component typical in the region, is the need for the institutions to function as communities. This function should be recognised and the positive aspects of this feeling of community should and can be reinforced with appropriate planning. What we feel should not be emphasised is the difference between this and all the other existing communities. Exclusivity breeds without any help from the planners. Isolated sites impose notable extra costs in creating an entire social and municipal infrastructure.

Site criteria

Choice of site: Although this decision is usually made at an early stage and for reasons often unrelated to its suitability for the purpose, we feel that it would be an improvement if the brief allowed a choice between several available sites, a situation still possible in our region where large pockets of land are still held either by central or local government. This choice should be well justified, with the quality of the justification being a fairly good indication of the architects' grasp of the overall impact and significance of the proposed development. The brief should be specific about the initial size of the project, its envisaged rate of development and its optimum size. The growth aspect is of particular importance in our situation and should be dealt with decisively in this initial stage.

Use of site. Although the cost of land is still comparatively low, it is a finite resource and as such should not be allowed to be wasted. An optimum density should be arrived at, which on one hand limits the necessity for use of mechanical lifts, while on the other leaves a sufficient amount of open space for light, ventilation and other uses. Our climatic conditions permit extensive use of outdoor spaces, which can be enhanced with a minimum of

intervention. The patterns of social interaction also increase the value of open space as a venue for socialising, and such usage should be promoted wherever possibilities exist.

Preparation of brief

As described in the previous section, the brief becomes the single most important input into a succesful design. It should be prepared in several stages with various carefully defined degrees of detail. The amount of research necessary for its sucessful formulation should be foreseen and budgetted for. Any attempted savings at this stage are likely to result in increased expenditure later.

Although our region does not abound in buildings which have outlived their uses, the idea of using existing buildings, even if already occupied by another institution, should be considered. The advantages seem to outweigh the discomforts with the main benefits being that the actual teaching can begin much earlier than if it had to wait for the completion of the building programme, and that the staffing is completed in time for the staff members to be given their say in the formulation of the detailed requirements for their respective departments.

Higher education facilities are usually commissioned by the state governments, whose desire to build monuments to themselves is certainly not without precedent all over the world. While we accept the idea of the necessary monument, the scale and nature of national universities, like national airlines, is often a matter of pride rather than necessity. Many of the educational needs of our region could be more economically satisfied at a regional level. Political and tribal considerations also have a history of overriding real needs.

Services

We are not generally in a position to run sophisticated energy generation schemes for a campus. Universities use the public utilities for electricity, water, drainage and solid waste removal, with the exception of medical training facilities with incinerators. Appropriate here relates more to suitable thermal design and minimising of artificial illumination, as well as to ensuring that there is space and access for easy maintenance of the municipal services. There is a need to design for fault tolerance in situations where services/maintenance are in question.

Design

The architect engaged in developing a brief targetting appropriateness is likely to carry this attitude through to the design stage. The final product should thus avoid paying mere lip-service to the idea. Application of the idea should also tend to produce some design consistency in the developing campus in reflecting local resources and climate.

Construction and maintenance

Preference should be given to common or popular construction methods, materials and components.

SADCUA file

Critical in maintaining academic standards is the ability to obtain spare parts for maintenance and repair of equipment, routine replacement, upkeep and upgrading of plant, utilities, vehicles and equipment, and supplies of necessary consumables. [Quote Mr X document]

Conclusion

Africa needs to use its resources far more effectively, and we believe that appropriate development of tertiary education facilities can make a notable contribution.

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cc: SADCC UA
BIDP AI
IAZ

Appendices
References

SADC HA file
Mr X

6

Preparation for Responsibility: Higher Education

Higher education is of paramount importance for Africa's future. Africa requires both highly trained people and top-quality research in order to be able to formulate the policies, plan the programs, and implement the projects that are essential to economic growth and development. Preparing individuals for positions of responsibility—in government, in business, and in the professions—is a central role of the continent's universities; supporting these individuals in their work—with research, advice, and consultancy—is another equally important role.

The leadership of the region's institutions of higher learning has spoken forcefully and eloquently at meetings in Mbabane in 1985 and Harare in 1987 about the urgent need for these institutions to produce graduates who can tackle the complex problems that confront the continent. Pronouncements at these meetings were consistent with the aspirations and African-articulated policy framework enunciated by the Organization of African Unity in its *Lagos Plan of Action for the Economic Development of Africa 1980–2000* (1981) and in its *Africa's Priority Programme for Economic Recovery 1986–1990* (1985) and endorsed by the United Nations General Assembly in its *Programme of Action for African Economic Recovery and Development 1986–1990* (1986).

University programs of research and teaching that support the rehabilitation and further development of the agricultural sector are particularly important within the framework of the *Lagos Plan of Action.* These programs include many applied areas, such as soil and water conservation and drought and desertification control, and the natural science and engineering disciplines upon which progress in all such applied areas depends. Of equal importance to Africa's future is its capacity to plan and direct the process of development. To achieve this capacity, Africa's institutions of higher learning must produce manpower trained in the disciplines of the social sciences and management, conduct timely research, and provide advisory services in such fields as economic planning, finance (including debt management), and public administration.

Although these tasks are essential to growth and development, they cannot be accomplished unless fundamental changes are made in higher education—changes that will dramatically improve its quality. If African universities are to provide graduates, research, and services that can respond adequately to the demands of Africa's modernizing societies—if they are to produce the research scientists and university teachers who can interpret the latest technology and harness it for the African continent—then resources for higher education must be increased, and they must be used more productively.

This study contends that resources can be increased and used more efficiently to improve the quality of higher education, despite limited economic prospects and the unremitting need for public austerity. It also suggests that the successful implementation of policies to improve higher education may eventually help to ease the constraints on educational

development at the lower levels. Higher education in Africa can be adjusted to serve changing imperatives for development, and that adjustment need not be at the expense of priority objectives in other subsectors.

The Challenge and the Promise

The development challenge posed for tertiary education is in one important respect more daunting than that posed for lower levels. The real growth of public resources for the education sector as a whole in most countries is unlikely to keep pace with the growth of school-age populations, which is likely to mean a decrease in real expenditures per capita on public education. Even with the vigorous application of recommended reforms, the primary and secondary levels of the education system will require additional resources just to keep enrollment rates and quality standards from deteriorating from their current modest levels. But if public resources for education are at best constant in real terms, where will the additional resources for primary and secondary schooling be found?

A portion of those resources can appropriately be supplied by the private beneficiaries of primary and secondary education and their families. It is probably inevitable that parents' contributions to the costs of their children's education, particularly secondary education, will increase, despite concerns about how this increase will affect overall equity and efficiency. But, even with greater private contributions, education systems will not be able to ensure the increased stocks of human capital required for continued development, especially in those African countries where enrollment rates are lowest and where the expansion of access to primary and secondary education remains an urgent priority.

The conclusion is harsh and inescapable: to meet minimally acceptable targets for coverage and quality of lower levels of education in most countries, the share of stagnant real public education expenditures devoted to tertiary education cannot expand further and in some cases may have to contract. Savings must be sought at this level from improvements in efficiency, increases in private contributions, and constraints on the growth of output. Total savings from such measures, plus resources mobilized from the international community, must generally be sufficient to finance the indispensable improvements in quality in the tertiary subsector in the short run, as well as its expansion in the long run. In some cases, such as the Sahelian countries where the crisis in primary and secondary coverage is most acute, these savings may need to be substantial enough to free up funds for the lower levels as well.

It will take years of dogged determination and profound changes in the way higher education is organized, managed, and financed to achieve the needed savings. In particular, unless managers of higher education are presented with compelling incentives to improve efficiency, impose quantitative limits on enrollments, and mobilize resources from the private sector, the required savings will not materialize. The most powerful incentive is to ensure that savings realized through wise and courageous leadership in any specific institution are in significant measure available for redeployment in the same institution. Conversely, policies that expropriate savings obtained by sacrifice in individual institutions and transfer them to a central authority for redistribution will be self-defeating because they destroy the incentive to look for savings. Until those savings are obtained, the limits on quality at the tertiary level and on coverage and quality at both the primary and secondary levels will be tighter, and the long-term prospects for development in Sub-Saharan Africa more constrained, than need be.

The challenge, then, is to design and implement with persistence, over many years and in circumstances of severe austerity, policies that generate the resources needed to revitalize the subsector. If the challenge can be met, these policies can increase the contributions of higher education to national development in three critical ways.

First, tertiary institutions prepare the people needed to fill high-level scientific, technical, professional, and managerial jobs—that is, they educate the elite leadership of a nation's development effort. Of special importance is the preparation of teachers, scholars, and managers for the education sector itself, especially for its most advanced teaching and research functions. These people are the core of national capacity for producing trained manpower, setting standards, maintaining quality, and adjusting the education system to changing circumstances. Second, African countries look to higher education institutions to generate the knowledge and innovation needed for development, through indigenous scientific research and as agents for the acquisition, adaptation, and dissemination of scientific and technical knowledge developed elsewhere. Third, African universities as institutions and their faculties as individuals can provide necessary services needed for development in both the public and private sectors.

In addition, tertiary education in Africa as elsewhere is a source of analytical perspective on social problems and their possible solutions that is independent of and, often, a usefully pluralistic counterpoint to political and religious authorities. Higher educa-

tion institutions also encourage indigenous self-expression, conserve and adapt local traditions and values, and constitute important symbols of national prestige and attainment.

Issues in Higher Education

At least with respect to the preparation of high-level personnel, tertiary education's contribution to Sub-Saharan African development since independence has been remarkable. The rapid growth of universities and enrollments was sketched earlier (chapter 1). In 1960 tertiary institutions in Africa graduated about 1,200 degree and nondegree holders, equivalent to one person trained at that level for each 168,000 inhabitants; the 70,600 graduates in 1983 represented a ratio of one per 5,800 inhabitants.

With this notable easing of the high-level manpower constraint, however, the relative importance of tertiary education's other functions has increased. Today, higher education's continuing contribution to development is threatened by four interrelated weaknesses. First, the mix of outputs of the higher education system is no longer well suited to the requirements for development. Second, the quality of those outputs shows signs of having deteriorated; in many instances the fundamental effectiveness of the outputs may be in doubt. Third, their costs of production are needlessly high (where cost is measured as the other output forgone because resources currently going to higher education were not applied elsewhere in the educational or economic system). Finally, the financing of the outputs is socially inequitable and economically inefficient.

The comments in this chapter on the costs and financing of higher education are based on robust empirical evidence. Findings on the outputs of higher education, however, must be offered more as hypotheses worthy of further study in individual countries than as incontrovertibly demonstrated facts. Except for simple head counts of graduates, there is presently a dearth of reliable data on the levels of outputs from the higher education system and especially on changes in those levels over time. African governments and their international partners in development should launch the necessary activities to generate and analyze data and should be prepared to act promptly on their results.

Inappropriate Mix of Outputs

HIGH-LEVEL MANPOWER. Of the three principal outputs of tertiary education—high-level manpower (including scholars and teachers for the education sector itself), knowledge and innovation (research), and development advisory services—Sub-Saharan Africa today generally produces relatively too much of the first and not enough of the second and third.

The proportion of tertiary graduates in African populations of age twenty-four and older (now about 0.4 percent) is still small compared with other developing regions (on average perhaps 6 percent). The proportion of scientific, technical, and professional positions filled by expatriates remains substantial in many countries, especially in the education sector. Over the long run, Africa can survive and prosper only by fully developing its major resource, people, especially those with skills acquired in tertiary education.

Nevertheless, short- to medium-term overproduction of high-level manpower—at least of the requisite quality—is suggested by the growing problems of unemployment and underemployment among graduates. Although reliable figures are not generally available, recent conversations with officials of African ministries and universities points overwhelmingly to surpluses of manpower trained at the tertiary level. Other considerations (such as physical capital stock) aside, the incidence and size of the surpluses are likely to be greater in countries such as the Congo, Gabon, Guinea, Lesotho, and Swaziland, where about one of every 2,000 inhabitants was awarded a degree from tertiary institutions in 1983, than in Burundi, Mozambique, or Tanzania, where the rate of production of tertiary graduates in recent years was only about one for every 17,000 inhabitants.

Data problems notwithstanding, long and lengthening periods of job search have been reported among graduates in Nigeria and Zaire. In Kenya a 1985 longitudinal study of University of Nairobi graduates between 1970 and 1983 documented job searches lasting from one to three years and in addition found that over the course of the study graduates became more likely to accept temporary employment and less likely to use their formal training on the job. Manpower forecasts for Lesotho show an excess of graduates, particularly outside the teaching profession. In Somalia demand for tertiary graduates around 1990 is estimated at 150 annually, although the anticipated output of Somalian institutions, net of students returning from abroad, is more than five times that amount. Fewer than 15 percent of the approximately 1,100 graduates of tertiary institutions in Mali in 1986 can expect to find employment in the public sector, and private sector opportunities are certainly no greater; the conclusion is that at most 30 percent of the graduates will find work appropriate to their level of training. If the base for these figures were to include Malians returning

from training abroad, the picture would be even gloomier. In Guinea a 40 percent reduction in enrollment in higher education was deemed necessary to bring the annual production of graduates in line with the absorptive capacity of the public service, essentially the only employer of high-level manpower.

What accounts for this situation, now an essentially universal phenomenon on the continent? Several hypotheses are worthy of testing in the light of country-specific circumstances.

To some extent, the apparent surpluses represent not so much overproduction as a general failure by African countries to nurture conditions in which individuals with tertiary education can be productive. Political philosophies and development models that place primary reliance on the reasonably unfettered interplay of market forces, internally and internationally, generate by their very nature incentives that reward skills acquired in tertiary education. As African economies succeed in their efforts at liberalization through structural adjustment, their ability to get the most out of high-level manpower will be enhanced. However inevitable it may turn out to be, this increase in the capacity of African economies to use high-level manpower productively is unlikely to become noticeable before the end of the century. If recent experience is any guide (see box 6-1 for a case in point), structural adjustment in the short run exacerbates rather than ameliorates the problem of unemployment among graduates, especially since the graduates' aspirations about occupational status and wages are much slower to respond to new economic parameters than the demand for their high-level skills.

The more immediate explanation for the surplus is that, on the one hand, the demand for graduates contracted suddenly in both the public and private sectors. The economic downturn of the 1980s and the pressure to contain public employment arrived just as African civil services, almost everywhere the largest employer of high-level manpower, had largely completed the process of replacing expatriates with newly qualified nationals and were consequently reducing their hiring rates. Other aspects of adjustment to the downturn—including the retreat from import substitution as a strategy for industrialization, the shift away from nontradables (construction, bank-

Box 6-1. Employment and Earnings of University and Technical Graduates in Côte d'Ivoire

Between 1982 and 1984 Côte d'Ivoire experienced a severe recession that reduced GNP per capita by almost 50 percent. Many jobs were lost, especially in the modern private sector, but the system of higher education was not able to adjust sufficiently to accommodate the changing demand for its graduates. A 1985 survey in Côte d'Ivoire revealed that 37.5 percent of people with university diplomas in Abidjan and more than half of such people in other cities were economically inactive or unemployed. More than half of them had been in that situation continuously for the full year before the survey. Among people with vocational and technical diplomas, the situation was only marginally better: 33 percent of them were without jobs in Abidjan, and 26 percent in other cities. The reduced ability of the formal sector—the traditional outlet for university and technical graduates—to absorb such graduates, especially in Abidjan, has induced about 10 percent of them to take up work in the informal sector, mainly as self-employed entrepreneurs.

For those graduates who do find jobs in the formal sector, the private returns to their education are still quite high. Each year of postsecondary schooling adds an average of 17 percent to an employee's earnings. This figure is higher in Abidjan (19 percent) than in other cities (15 percent). For technical and vocational education, the increase in earnings is about 9 percent for each year of schooling, with no difference between Abidjan and other cities. Such elevated returns to education in combination with high unemployment among university and technical graduates are signs of an imperfectly functioning labor market. In particular, it appears that, as a result of the recession, the number of jobs has been reduced while the salary levels of those workers still employed have been maintained.

Graduates who become self-employed in the informal sector sometimes earn even more than their wage-employed peers. For example, in Abidjan, the average self-employed person with a vocational or technical diploma earns an income almost one and a half times that of a government worker with the same diploma and more than three times that of a self-employed person with only a primary school diploma.

These findings suggest the importance in the short run of adjusting university output to levels that the labor market can absorb. At the same time, they point to the need for adjustment mechanisms that will eventually allow full (or fuller) utilization of university graduates as the economy recovers and as labor market performance improves. The high productivity of graduates working in the informal sector, in particular, indicates that (even though new graduates may have to adjust occupational expectations downward) college education is of broad vocational value.

ing, insurance), and the scrutiny of staffing levels following privatization of parastatals—may also have slowed private sector demand for high-level manpower, which in any event was often much less significant than demand from the public sector.

On the other hand, the economic downturn coincided with the coming into production of the remarkable program that was undertaken in the 1970s to expand the capacity of tertiary education. Between 1980 and 1983 enrollments in African institutions of higher education increased 30 percent (from 337,000 to 437,000, not including the additional 100,000 African students enrolled in foreign universities) and graduates increased 70 percent (from 41,500 to 70,600). In short, the supply of graduate manpower mushroomed.

In addition, the emerging imbalance between supply and demand was exacerbated by structural rigidities in the education system. A good example is the remarkable stability in the relative number of graduates in the arts, humanities, and soft social sciences. In 1960, reflecting the need for indigenous administrative personnel and the less onerous requirements for costly facilities in liberal arts programs than in the sciences and engineering, African institutions of higher education enrolled 60 percent of their students in the arts and humanities and 40 percent in the sciences and engineering. Today, the Africanization of public service positions and (at least in some places) of management positions in the private sector is quite advanced, and as a consequence the demand for arts and humanities graduates is less robust. By contrast, the demand for high-level manpower in scientific and engineering professions is, in most places, much more substantial. Yet the 60 to 40 ratio is the same as it was in 1960. Enrollment patterns have not responded to shifting labor market demands. The rigidity of enrollment patterns is further accentuated by the lower proportions of students actually graduating in the sciences and engineering than in the arts and humanities.

In a few countries unemployment and underemployment among graduates of programs in the agricultural sciences, the physical and life sciences, and engineering suggest that, in addition to structural rigidities in enrollment patterns, the overall size of the system may have exceeded the current requirements of economic growth. The continuing reliance on expatriates to staff scientific and technical positions, especially in the education sector itself, suggests that inadequate quality may also impede the absorption of graduates of African universities into the labor force.

Finally, public subsidization has so far kept the direct costs of higher education close to zero for the individual student. Yet, as tables 6-1 and 6-2 make clear, wage differentials remain substantial for labor trained at tertiary institutions. As a consequence, the private rate of return to tertiary education is on the order of 30 percent, higher than for any other region of the world, and it shows no sign yet of decline. In response, the number of secondary school leavers with hopes of acquiring higher education grows larger each year. The result is a paradox of more graduates in many fields than the economy can usefully absorb, combined with undiminished pressure to expand opportunities for higher education.

LEADERSHIP IN EDUCATION. Although an overproduction of graduates may now have become the rule in many African countries, an excess demand for

Table 6-1. Graduate Starting Salaries as a Multiple of Per Capita Income in Selected Countries, circa 1979

Country	*Salary as multiple of per capita income*
Gambia	11.1
Ghana	3.6
Kenya	14.6
Liberia	11.1
Sierra Leone	5.1
Somalia	8.3
Tanzania	14.2
Zambia	12.0
Mean	10.0
Median	11.1

Source: International Labour Office (1982).

Table 6-2. Index of Starting Salaries in Public Service by Education Level in Selected Countries, circa 1979 (O level = 100)

Country	*A level*	*Degree level*
Ghana	120	169
Kenya	127	269
Liberia	.	339
Sierra Leone	229	342
Somalia	128	171
Tanzania	148	323
Zambia	116	169
Mean	145	254
Median	128	269

. Not available.
Source: Derived from International Labour Office (1982).

graduates still exists in some fields of study. These include specific scientific and engineering fields, in which focused expansion of capacity in tertiary education will often be required. But usually the greatest exception to the general rule of overproduction of graduates is to be found in the education sector itself. In eighteen countries for which data are available, expatriates constituted on average 35 percent of secondary school teachers at the end of the 1970s (see appendix table C-9); the proportion is much higher in some fields (for example, science, mathematics, and technical education). Despite sizable staff development efforts, including programs for training in foreign countries, many tertiary institutions are still critically short of African staff, especially in the senior academic positions of teaching and research leadership. In Nigeria, which is ahead of most countries in the Africanization of staff, about 20 percent of the teaching positions in tertiary institutions were still filled with expatriates in the early 1980s. Data for ten other countries at the end of the 1970s suggest that expatriates on average filled 50 percent of tertiary teaching posts (see appendix table C-9).[1] And postgraduate programs, especially those involving rigorous research training, remain in their infancy, in part because requisite staff with doctoral qualifications and adequate experience are not available.

Indeed, the least recognized but perhaps, over the long run, the most devastating damage to African higher education since 1980 was to the promising efforts begun in the 1970s to build an indigenous African capacity to produce tertiary teachers, research scholars, and top-flight analytic personnel for the public services. In Nigeria, for example, the erosion of progress will mean that only one-third of the new academic staff required by universities over the next few years is expected to be forthcoming from existing postgraduate and staff development programs. The shortfall is greater, of course, when doctoral-level staff requirements in research and professional occupations outside of universities are also considered.

RESEARCH. Although substantiation depends more on anecdotal than empirical evidence, African university staff uniformly report that research in their institutions withered in the 1980s. As the financial crisis of tertiary education deepened, research budgets were typically subject to early and severe cuts. The feasibility of offering good postgraduate education also declined, since a significant part of postgraduate (especially doctoral) training involves student participation as apprentices in faculty research and ultimately the solo undertaking of a dissertation project.

Stagnation or outright decline in research output and in the capacity to produce future researchers jeopardizes Africa's long-run ability to take advantage of the worldwide advance in science and technology. Africa need not be consistently in the forefront of all scientific and technological advance, and well into the next century a sizable fraction of Africa's Ph.D.s will still undoubtedly be trained in foreign institutions. But the continent nevertheless already needs to increase its capacity to absorb and use new knowledge, and that capacity is in large measure developed through indigenous postgraduate teaching and research programs. For example, advances in genetic engineering and other areas of biotechnology are potentially applicable to problems of plant and animal health in Africa; the impact on production of food crops and on export agriculture could be sizable. The argument can be extended to human health and even industrial processes—and to such areas as microelectronics and materials science (ceramics and metallurgy).

The central point is that without African mastery of the underlying science of such developments and the techniques to adapt them to local problems and conditions, the potential benefits to Africa of these advances will likely be lost in large measure and certainly will be late in arriving. World-class university-based programs of both basic and applied research and of postgraduate education are the breeding grounds for the mastery of science and technology. They are the key to sophisticated consumption of mankind's exploding stock of knowledge. They are a necessary condition for African escape from intellectual dependency. Ironically, no African nation can afford to have such programs in the short run, yet none can afford not to have them in the long run.

CONSULTANCY AND ADVICE. Even in their current depressed and fragile state, universities in Africa represent a nation's largest reservoir of expert knowledge and cosmopolitan experience. And here is another paradox. The continuing demand for expatriate technical assistance from both public and private sector organizations suggests that there is no lack of tasks requiring the highest levels of academic training and professional experience. Yet, with few exceptions, African universities as institutions and their faculties as individuals do not allocate much time and effort to direct service activities, except for special training programs. Much applied work currently undertaken by foreigners could as well be done by African university staff, who in the process would enrich their own research and teaching by gaining more thorough grounding in present-day African realities.

Low Quality

Direct and hard evidence is not available on the quality of the outputs of African higher education. That African graduates may not be as knowledgeable as their peers elsewhere in the developing world may be suggested by results of the Graduate Record Examination: the scores of African students on the verbal, quantitative, and analytic sections are uniformly lower than those of Latin American, Asian, or Middle Eastern students. Although the significance of this finding is subject to varying interpretations, there is no reason to believe that the cultural disadvantage of African students on such foreign examinations is any greater than that of students from other developing regions. The low (and possibly declining) standard in African higher education is now pervasively bemoaned by teacher, student, employer, and government official alike.

Nor could the situation be otherwise, since indirect evidence of a crisis of quality in African education is overwhelming. A tragic consequence of the economic downturn—and of the concomitant constriction in public budgets and reduced access to foreign exchange—has been the virtual disappearance from higher education institutions in many African countries of exactly those inputs that make physical plant and highly trained academic staff educationally productive (see box 6-2).

These inputs include spare parts for equipment maintenance and repair; routine replacement and upgrading of equipment; reagents and other consumable supplies; acquisitions of monographs and multiple copies of textbooks for libraries; subscriptions to scientific journals; functioning computation facilities; maintenance, gas, and oil for vehicles used in faculty research and student field trips; other research support to faculty, including travel; even routine upkeep of physical plant (for example, sanitary facilities and telephone exchanges) and public utilities (for example, sewerage, water, and electricity).

The level of deprivation of these nonsalary operating expenses varies from place to place on the continent, but appendix table A-22 suggests that, on average, less than 2 percent of total recurrent public expenditures on tertiary education is available for these crucial purposes. Campus visits make clear that the situation prevalent into the 1970s has now reversed: the scarcity of nonsalary recurrent inputs, not the number or level of training of academic staff, is today the governing constraint on quality in African higher education in nearly every country.

Box 6-2. The Crisis of Quality in Higher Education

The scarcity of funding for capital investment and nonsalary operating expenses has seriously undermined the quality of education in African universities. The situation at Nigeria's University of Ibadan illustrates the problem.

> For several months now we have been expected to run a physics laboratory without electricity, perform biology and zoology experiments without water and get accurate readings from microscopes blinded by use and age. Chemicals are unimaginably short. The result of all this is a chemistry laboratory that cannot produce distilled water and hundreds of "science graduates" lacking the benefits of practical demonstrations (Osundare 1983, p. 2122).

Ghana provides other examples. At the University of Science and Technology, no equipment for the electrical engineering department has been purchased since 1962, and most equipment in the civil engineering department dates from the 1950s. Such old equipment, including the university's computer, is rarely in working order; it requires regular routine maintenance, including replacement parts, for which funds are not available. The same university has been characterized as "grossly short of... books, paper and food" (Tipple and Tipple 1983, p. 1654). Similarly, reports from the University of Ghana's faculty of science tell of shortages of chemicals and other consumables necessary for laboratory classes and note that the scarcity of foreign exchange precludes the supply of essential materials from abroad. Lack of funds also means that some universities are operating without the vehicles necessary for field trips and data collection and that others do not have the resources to repair broken telephone systems.

In many countries throughout the Sub-Saharan region, the lack of capital funds has left construction work unfinished on classrooms, laboratories, workshops, libraries, and residence halls. A 1981 report from the Nigerian Commission on Salary and Conditions of Service of University Staff states: "The Commission was horrified to witness the disgraceful spectacle of students in the corridors and outside lecture theatres struggling to comprehend the proceedings inside." Reports from the University of Ibadan are also discouraging: "Everything in the University today points to an agonizing decline. Students swarm from their hostels where there are six in a room designed for two, into a dingy lecture room where a teacher shouts his notes across a hall of five hundred listeners" (Osundare 1983, p. 2122).

The most immediate consequences of the drying up of nonsalary inputs to higher education are that research ceases and instruction is reduced to little more than rote learning of theory from professorial lectures and chalked notes on blackboards. Chemists who have not done a titration; biologists who have not done a dissection; physicists who have never measured an electrical current; secondary science teachers who have never witnessed, let alone themselves actually conducted, the demonstrations central to the curriculum they teach; agronomists who have never conducted a field trial of any sort; engineers who have never disassembled the machinery they are called upon to operate; social scientists of all types who have never collected, or conducted an analysis of, their own empirical data; specialists for whom the programming and use of computers is essential who have never sat before or tested a program on a functioning machine; lawyers who do not have access to recent judicial opinions; medical doctors whose only knowledge of laboratory test procedures is from hearing them described in a lecture hall—qualitatively deprived graduates such as these are now appearing in countries that have been hardest hit by the scarcity of nonsalary inputs. Complicating the situation further in many institutions are student numbers in excess of the carrying capacity of crucial components of the physical plant, particularly living accommodations and library study space.

As a consequence, the skills most relevant to development, those acquired when theory is confronted with the exigencies of the real world, are exactly the ones that do not get learned. The result is that, in its stock of high-level skills and in its ability to generate knowledge and innovation, Sub-Saharan Africa is falling further behind despite the increasing numbers of higher education graduates. Tertiary education discharges ever less effectively its principal responsibilities.

High Costs

Not only does higher education now produce too many graduates in many fields, too few high-level personnel for postgraduate education and research, and not enough research and development advisory and consultancy services. Not only are all those outputs of lower quality than in the past. But the costs per graduate—some of whom are not needed and many of whom are inadequately trained—are exorbitantly high. As a percentage of GDP per capita, which is a reasonable proxy for affordability, unit costs (costs per student-year) of public higher education are between six and seven times more in Sub-Saharan Africa than they are in Asia and nine times more than in Latin America (see table 6-3). As a multiple of the cost of a student in primary school, a plausible measure of opportunity cost, the unit cost of publicly supported students in higher education is about sixty times that of primary students (see table 6-4). In Asia and Latin America, however, unit costs for students in higher education are between ten and fifteen times those for primary students.

There are two parts to this problem of internal efficiency, both reflecting fundamental shortfalls in African higher education. First, wastage—and thus cost per graduate—is high. Data for seven countries suggest that between one-third and two-thirds of the initial entrants to tertiary education fail to complete their studies or complete them behind schedule. Thus, a sizable portion of student places are occupied by repeaters or future dropouts, with the result that

Table 6-3. Unit Costs of Public Education at the Various Levels as a Percentage of Per Capita GNP in Selected Country Groups

Country group	*Primary*	*Secondary*	*Higher*
Sub-Saharan Africa	15	62	800
Francophone	23	86	1,000
Anglophone	12	51	600
Asia			
Southeast Asia and Pacific	11	20	118
South Asia	8	18	119
Latin America	9	26	88
All developing countries	14	41	370
Industrial countries	22	24	49

Source: Appendix tables A-17 to A-19 and Mingat and Psacharopoulos (1985).

Table 6-4. Public Expenditure per Student in Tertiary Education as a Multiple of That at Lower Levels in Selected Country Groups
(medians)

Country group	Tertiary as multiple of primary				Tertiary as multiple of secondary			
	1970	1975	1980	1983	1970	1975	1980	1983
Low-income	68	57	61	60	12	12	18	14
Middle-income	55	50	43	50	7	10	10	7
Francophone	40	55	44	61	9	12	18	13
Anglophone	79	68	50	52	11	11	11	12
Sub-Saharan Africa	55	55	50	59	11	12	14	13

Source: Appendix tables A-17 to A-19.

many more years of student services are required to produce each graduate than the length of the cycle would optimally require. Among the factors contributing to repetition and dropout are: insufficiently developed selection mechanisms for students aspiring to enter higher education (in some countries it remains the case that all who graduate from secondary education are assured a place in higher education); the dearth of nonsalary quality-enhancing inputs (noted earlier), which makes learning difficult, unstimulating, and unrewarding; and the absence of sanctions for poor performance of students and teachers, so there is no incentive to strive hard for results.

Second, resource costs per student-year of higher education services provided are needlessly inflated. Although not uniformly present in every country, several factors typically contribute to the unnecessarily high costs of tertiary institutions borne by the education budget of African nations.

SMALL INSTITUTIONS. Within a sample of fifty African universities at the end of the 1970s, twelve had enrollments under 1,000 students, while only thirteen had enrollments over 5,000 (and several of these had students dispersed over more than one campus). This proliferation of small institutions precludes exploitation of the well-documented economies of scale in higher education (and, in addition, means forgoing the academic advantages of critical mass concentrations of highly specialized staff). Explicit understandings on appropriate divisions of labor—in large countries internally among the tertiary institutions and in small countries across international boundaries—could greatly reduce this cause of high costs.

SUBSIDIES FOR STAFF. In many countries, universities were established initially as self-contained communities on vast tracts of land outside large urban areas. This approach involved heavily subsidized provision to all staff members of housing, standard municipal services, and even welfare and social services (clinics, schools, clubs). The huge sunk costs of this infrastructure prohibit starting afresh, and the ongoing costs of this legacy must somehow be met. With few exceptions, the public budget picks up the tab.

LARGE STAFF. On the basis of personnel listings of approved positions, the ratio of students to academic staff is 13 to 1 in a sample of Francophone African universities and about 7 to 1 in Anglophone Africa, where it ranges from 3 to 1 on the low side to 12 to 1. By way of comparison, the ratio of students to academic staff in British and French universities, in some sense the models for their counterparts in former colonial possessions, is 13 to 1 and 25 to 1, respectively. In some countries, where erosion of salaries and deterioration of working conditions have resulted in an exodus of the most highly qualified academics from the universities, the actual ratio of students to academic staff may be somewhat above the approved ratio. Still, staffing is generous by comparison with industrial countries, where the student-staff ratio is more typically twice that in Africa. One reason is the propensity of African universities to offer a very wide range of programs and courses in each institution, resulting in wasteful duplication. Course enrollment of fifteen students is not unusual.

African universities also usually employ large numbers of nonacademic staff, especially to operate municipal and student welfare services and to care for the campus. An example from Ghana illustrates the general nature if not the exact quantitative dimensions of the problem. In a British university, reasonably analogous to Ghana's three universities together in size, age, and location (on the periphery of a large city), there are over six students for each member of the nonteaching staff and the ratio of

nonteaching to teaching staff is 1 to 6. However, nonteaching staff in the three universities of Ghana outnumber students and the ratio of nonteaching to teaching staff is 14 to 1. Most of the difference is in service areas. Guards, ground crew, and maintenance personnel totaled 902 in one of the Ghanaian universities and 166 in the British university. A second example is the University of Nigeria, which employs 52,000 staff for a student population of 77,000.

SUBSIDIES FOR STUDENTS. None of the twenty-four African countries for which recent data are available has a general policy of charging tuition fees that are not covered by a government subsidy in some form. The essentially universal policy of charging no fees for higher education means that the publicly borne unit costs are much higher than they would be if a significant part of the burden were borne by students and their families. But the no-fee policy contributes indirectly to high unit costs as well, since students and their parents have no incentive to contain costs. If instead of fee-free higher education, students and their parents had to shoulder a significant proportion of the total cost, pressure would surely develop to contain unessential expenditure and, in general, to increase efficiency.

In a similar vein, the long-standing practice of providing either free room and board on campus or an allowance to all students, thereby shifting to the public "educational" budget the considerable sums required to cover living expenses of students, greatly inflates publicly borne unit costs of higher education in Africa. Although several countries have begun to phase out support for the living costs of students, fellowships to students still constitute half the public expenditures on higher education in a number of African countries. The scope for reducing such public expenditure is particularly broad in many Francophone countries.

INEFFICIENT USE OF RESOURCES. Finally, unit costs are inflated by the failure to make maximum use of expensive teaching personnel and physical facilities, which is manifest in light teaching loads, in restricting class and laboratory hours to a specified portion of the day, and in letting the entire plant and staff lie idle at least twenty weeks a year. The scope for adding evening and vacation students to increase access to universities has almost nowhere been exploited, the University of Zambia being an important exception. With universities effectively closed to all but the fortunate few full-time students, there is a substantial population of students taking courses at their own expense overseas.

Inequitable and Inefficient Finance

Unlike the situation in some other parts of the world, tertiary education in Sub-Saharan Africa is overwhelmingly public in ownership and operational control. Private institutions of higher education are often explicitly proscribed in fundamental legislation and administrative regulation. Public ownership and control of higher education in Africa has meant for all practical purposes that tertiary education—including the living costs of its students, which are not properly an education expense—is entirely financed by the public budget. With few exceptions, students, their families, and their future employers are spared having to make any contribution to the costs of higher education beyond the general incidence of the tax system and the income forgone while studying. The extent to which the private rate of return to higher education exceeds the social rate of return is a useful index of public subsidization of education, since most of the difference between the two is due to including the state's contribution to costs in the social rate calculation and excluding them in the private rate calculation. The available evidence suggests that in Africa private rates of return to higher education are, conservatively, 150 percent greater than social rates, a multiple more than three times higher than in Latin America or in industrial countries generally and more than fifteen times higher than in Asia.

There are two undesirable consequences of this insulation of the beneficiaries of higher education from its heavy costs. Income inequalities are increased by the sharply regressive effect of higher education expenditures; the system ensures that the rich get richer and the poor get poorer. And perhaps more important, within the education sector as a whole and within higher education as a subsector, resources are allocated inefficiently.

A Program for Structural Adjustment of African Higher Education

If the preceding diagnosis of weaknesses in higher education in Sub-Saharan Africa were to be confirmed through careful analysis of the situation in individual countries, the four objectives to be sought for the short term through reformed policies would be clear enough: (a) improve quality, (b) increase efficiency, (c) constrain output, especially in those fields that do not directly support economic development, and (d) relieve the burden on public sources of financing by increasing the participation of beneficiaries and their families. But quality enhancement as

the first objective will cost money. Thus, implementation of policies to achieve the last three objectives will, essentially everywhere in Sub-Saharan Africa, be a prerequisite for freeing the resources needed to achieve the first. The four objectives would, of course, be pursued with differing mixes of policies appropriate to the circumstances of particular countries. The sequence of policy implementation would also depend upon the needs of each country; gradual phasing in of new policies, in stages over some years, would have to be the rule, not the exception.

Improved Quality

A quantum increase in the quality of tertiary teaching and research is the first objective. Long-term development goals cannot be met without it. Improvements in quality, however, are unavoidably expensive. So, given the requirements of other parts of the education system and the environment of constrained public resources, no advance here is possible without significant progress toward the other three objectives of resource conservation.

Better quality could be achieved through a variety of measures. Most immediately necessary are the establishment and gradual implementation of standards of provision for the full range of vital nonsalary inputs to teaching and research. Supplying libraries with multiple copies of basic textbooks, as well as supplementary books and periodicals, is the highest priority, closely followed by supplying laboratories and workshops with consumables and materials needed for equipment maintenance and repair. Resuscitation of long-term efforts to upgrade the academic qualifications of staff is also essential. Formal postgraduate training in masters and doctoral programs, for the time being mostly outside of Africa, is an essential part of this effort. But the need extends much further, to postdoctoral fellowships, faculty exchanges, collaborative research, and other professional links with foreign universities through which African academics are exposed to new developments in research and curriculum in their fields. Twinning arrangements, between a department in an African university and the same department in one or more foreign universities, are an especially attractive device for staff development at these sophisticated levels and can also profitably involve the service of foreign university staff in African institutions. For maximum productivity, such arrangements need to be sustained over many years.

Quality in tertiary education is also improved by rigorous testing programs administered independently of the universities and involving external examiners. Such testing is an essential ingredient in setting standards of performance to which individuals and institutions can respond. Independent performance measurement also creates an ambient in which efficient independent study programs can develop.

Finally, in the longer term, improvements in quality will be realized and sustained through the establishment of programs—and, in some cases, centers—of excellence for postgraduate education and research. These programs or centers could concentrate staff and resources into a critical mass. Participants at the Mbabane and Harare conferences on higher education have voiced their support for an appraisal of the advanced teaching and research capabilities and capacities of African universities, as a first step toward identifying potential sites for research and postgraduate teaching in priority areas. By establishing such specialized, high-quality programs and institutions, African governments would provide able African students with an attractive alternative to (more costly) foreign study, create incentives for university researchers to pursue their work on the continent, and in so doing address two aspects of the serious problem of "brain drain."

Increased Efficiency

Reduction in unit costs (per student-year of educational services provided) is the second challenge. This reduction would be achieved within existing institutions through measures such as the following.

- establishing and gradual phasing in higher numbers of pupils for each member of the academic staff
- setting minimum standards for class or course size
- reducing the ratio of nonacademic support staff to academic staff (perhaps in part by using student labor in some campus jobs)
- increasing the hours per week and weeks per year that academic staff and physical facilities are utilized
- expanding access for part-time, fee-paying students
- introducing self-study methods (for example, use of radio and correspondence) to teach low-enrollment courses
- gradually assigning to nonpublic sources the full cost for housing, food, and other welfare services provided to staff and students
- where feasible within countries—and prospectively even among countries—rationalizing programs and faculties and consolidating institutions, so that diseconomies of small scale are mitigated.

No country is likely to be able to implement all of these measures, but all can potentially reduce unit

- imposing national service obligations—for example, to teach school, work in distance education centers, or participate in adult literacy campaigns—before, during, and after enrollment in higher education
- promoting an educational credit market
- imposing a special tax on earnings of tertiary-level graduates during a transition to an effective system of graduated income tax.

Expansion of cost-sharing to include the beneficiaries of tertiary education and their families does not mean that governments should lessen their financial support to the subsector. Rather, promotion of broader financial participation should be seen as one way in which governments can help ensure the increase in financial flows necessary for the improvement and ultimate expansion of higher education.

Feasibility

The structural adjustment of higher education involves identifying the educationally and economically correct mix and then determining the optimal sequence and phasing of policy measures in the light of specific country circumstances. This task will not be easy either in its design or in its implementation. First, it will require analytical and planning capabilities that are nowhere plentiful, in some countries exceedingly scarce, and everywhere untested on a task of this complexity.

Second, political considerations will inevitably limit the feasibility of some desirable elements and sequences of measures, many of which will be perceived in the short term as threats to deeply ingrained interests of powerful groups in society (civil servants, professors, and students). Determined and very high-level leadership will be needed to overcome resistance.

Third, actual implementation will demand a level of managerial competence that is uncommon. The program will have to incorporate actions to support management, especially by developing capabilities to monitor and evaluate the impact of new policies and to adjust and fine-tune their implementation.

Fourth, very little can be expected to happen quickly, for institutional change of the magnitude required is always excruciatingly slow. Great persistence will be required.

Finally, and perhaps most important, a fundamental dilemma must be overcome. Rapidly applied, highly visible, and quick-yielding measures to reverse the precipitate decline and ensure the long-term improvement in the quality of African higher education are likely to be a necessary (although not sufficient) condition for acquiring social acceptance of the painful measures that will have to be taken to achieve the three objectives for conserving resources. But it is only after those conservation objectives have been achieved that resources will be available for the sustained maintenance and improvement of quality. Bilateral and multilateral agencies could address ways to resolve this dilemma of transition as a first step in the restructuring of international collaboration on higher education in Africa.

Academics, university administrators, public sector managers, and students share an acute recognition of the intolerable situation of African higher education. In most countries measures to increase efficiency, constrain output, and diversify finance are already under consideration, and in some places they are beginning to be implemented. As such measures take hold, the possibilities for introducing urgently needed improvements in the quality of higher education will grow. Recommendation 4 summarizes the approach.

Recommendation 4

Recent deterioration threatens the ability of most of Africa's institutions of higher education to contribute to the region's development. The quality of these institutions must first be restored and then improved, so that the region can extract maximum advantage, for its own purposes, from the accelerating worldwide advance of science and technology. In most countries, however, a period of adjustment to changed economic circumstances is a short-term prerequisite for improving higher education. Some tertiary institutions, individual campuses, academic departments, and teaching programs need to be amalgamated into larger units of economically viable size. Personnel reductions, especially of nonteaching staff, are indicated in some countries but should be sought in such a way as to increase the average level of relevant training and experience of those who remain, particularly those in academic positions. The number of students at most institutions needs to be stabilized, by tightening admission and performance standards and by eliminating living allowances and free room and board; the inequitable effect of this final measure can be mitigated by the provision of scholarships based on need. Such consolidation in higher education will help to reestablish an economically and pedagogically viable base from which to expand the number of graduates and the scope of research and community service.

SADCUA file

2.9.92

Polly
Dr Davies

Tertiary level: Polly considers funding emphasis still at 'academic' UB.

Started trade training, then technician, then 1990 degrees via UB. Offer post + 1 yr BSc. = ± A level.
20/300 graduates or heads 100/700.

Presently 700 full time resident: few live outside.

Finance short, applicants = 2× places presently.

Running costs: good for tech equip.
adequate @ staff etc (Min of Ed) but much less than UB.
O- research
O- staff development, conferences etc.
Inefficiency in staff accom costs on arrival: Lack of housing pool.

Oil to photograph.

Out of step with NDP7: 1700 by 1997! No space. Long term plans absent, prefer institutions.

Malawi: University had difficulties getting bldgs: donors would fund contents, but not bldgs. Single institution for tertiary inc vocational. 80-90% vocation predecided: no anti-technical bias because selectn/pay rates =.

educational ~~is~~ practice, but be careful to avoid too-specifics; student needs ~~undefined~~ defined; national prestige: bursar keeps: cleaners & maintenance factors. Architects need to have a standard of comparison, whether from experience ~~of~~ or from study or expert advice.

Character/quality of environment needs to be reflected in the brief.

Client & architect must cooperate at macro planning level ~~with~~ while particular expertise is needed — ~~for~~ particular facilities.

Design & construction

Considerable local input needed: need for technical/architectural advisors to the brief drafters/scheme assessors (can also facilitate competitions): desirable to keep an objective view of needs/solutions. Design: local climate & culture need reflecting

Local technology/available materials

Sustainable, maintainable facilities & equipment: standards, overall standards of living/economy/education.

Reduction of unnecessary standards ~~in~~ = equipment.

Maintenance prop/policies

Funding required: cost of replacements: high cost through unskilled users ~~spoiling~~ causing excessive wear & tear.

Often not suitable staff obtained/kept: standards of staff performance, materials/eq performance.

SADZ NXJ16

VIACRATE : UB. 1.9.92

Permission ok ; non will be given.

Funding from govt relates to NDP planning.

NDP 6 lifted target to 5000.

Now + current marketplan : target 10 000 still within time frame 2000.

Poor links between academic + physical planning.

Using UGC standards for space ; not close curriculum consideration. Money hasn't been a constraint, as errors can be corrected in next phase.

Last plan review was substantially from outside. 6 year review periods.

→ 1992 3400 (a little behind schedule of NDP).

390K pm 105 K 2 today 1997

Current plan period R130 mill with escalations (max ± 160-170 million)

SAPSE to build control.

Appropriateness is not a priority : the pace exceeds the possibility of proper review / briefing / assessment.

Perceptions : want big = library : ready to demolish finishes not plastered etc.

Accountability of academic staff for requirement specification. Target 80% yes, plan allows 40% ; Forms of housing too uniform.

Scale of facility : ie single dining hall for campus.

SADCUA
file

IN SEARCH OF THE APPROPRIATE
A view from Southern Africa.

- It seems less easy to make higher ed facilities appropriate
- Target audience:]

Setting priorities in eductn (as it affects tertiary)
— National development plans — institutions own development plans. (parastatal/private)
perceptions of the institution as prestige/status symbol.

Allocatn of resources: capital vs running costs:
Expatriate costs for ~~same~~ running costs: absolute need vs need for cross-fertilizatn of ideas.
Financial ministries not experts on required allocations.

Specific requirements (defining of), (broadly only): budget; student numbers; courses; staging of growth. Is the campus a collection of buildings having activities, or whether a community is shaped. Residential policy.

Objectives: multi-use & part of community to max rather than warp town. Avoid exclusivity: balance against security/riot/disturbance: damage to facilities - deliberate: less separatn of student body from/off-campus population in general.

from:
SADCC Union of Architects
Private Bag 00120
Gaborone, Botswana

1992 Ralph Erskine visit to Gaborone

Swedeplan Botswana has arranged for a one-week workshop on a town planning/ urban design project, under the guidance of Ralph Erskine, in Gaborone from 5th July to 10th July, 1992. The workshop is open to architecture & planning students (subject to limits on numbers in the event of overwhelming response). We aim to include a related but shorter workshop for architects in practice, on 6th and 7th July, following the opening at 4pm on Sunday 5th July.

If there is interest in attending, please contact Dukie Richardson at phone (+267) 352450, fax (+267) 373533 or David Young at phone+fax (+267) 371181 for further information.

A copy of the draft programme is included for information.

David Young
pp Secretary, SADCC UA

cc: Swedeplan
D Richardson
E Gurney
C Lebona
J Wasserfall
BIDP ATPI
IAZ
ZIA
AAT
MIA
Angolan Institute
NIA
LAESA
Schools: Kitwe, Cape Town, UN Durban, Wits, Pretoria, UPE
AUA
CAA

Draft Programme Ralph Erskine Seminar/Workshop 5–10/7 1992

==========

Sun 5/7 at 1600:

Introduction/presentation of RE and his works in the UB Exhibition Hall for specially invited guests (eg SADCC Union Arch/Plann, private consulting Arch/Plann Botswana, Council Arch/Plann, Govt Arch/Plann, BHC Consult's Dept, Univ students).

Welcome to Guests (Res Rep/SwP)

Opening Speech (President SADCC UA)

Cocktail

Presentation by Ralph Erskine

==========

Workshop/seminar on "Creativeness/Design and Development Control"

1 Mon 6/7

Layout: Early mornings – presentation of issues
Late mornings/afternoons – Studio Work, c 6 teams, each guided by experienced Arch/Planners, designing a local centre with mixed land–uses, within the context of the new Dev Control Code.

800 –1000	"Architecture and Urban Design for Better Living" – Ralph Erskine
1000–1030	Tea
1030–1230	"The New Development Control Code for Botswana" – Nils Viking
1230–1400	Lunch at UB
1400–1700	Studio Work – Presentation of task (Gab West Block 8 Local Centre) RE + assistants available to advise on getting started, major design components, mixed uses etc

2 Tue 7/7

800 –1000	"Architecture and Planning in Botswana" – AC Mosha
1000–1030	Tea
1030–1230	Studio Work – RE and assist available. RE to advise on upcoming design problems.
1230–1400	Lunch at UB
1400–1700	Studio Work Cont

3 Wed 8/7

8oo –10oo	"The Role of Design Professions in the Society" – Paul Kotze
10oo–103o	Tea
103o–123o	Studio Work – RE + assist available
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

4 Thu 9/7

8oo –10oo	Studio Work – RE + assist available
10oo–103o	Tea
103o–123o	Studio Work Cont
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

5 Fri 10/7

8oo –10oo	Final touches to Studio Projects
10oo–103o	Tea
103o–123o	Presentations of Studio Works
123o–14oo	Lunch at UB
14oo–163o	Presentation Cont
163o–17oo	Winding Up – RE/Assistants
19oo	Reception UB Closing Remarks (Dir/DTRP)

(ACP/06 SADC

SADCC UNION OF ARCHITECTS

(Southern Africa Development Co-ordination Conference)

DRAFT CONSTITUTION

ARTICLES OF ASSOCIATION

ARTICLE 1 unanimously agreed

Title The Charity hereby constituted shall be called the 'SADCC Union of Architects', hereinafter called 'the Union'.

Objects ARTICLE 2 unanimously agreed except 8

1. To support the aims and objectives of the SADCC Charter.

2. To advance architecture throughout the SADCC member states, and the promotion and acquisition of knowledge of the various associated arts and sciences.

3. To promote intellectual, artistic, scientific and professional co-operation between national associations of architects in the SADCC member states.

4. To promote the profession on a regional basis and represent it at an international level.

5. To maintain public confidence in the integrity and ability of architects by demanding from members the highest moral and professional standards.

6. To encourage regional co-operation between architects and other disciplines, professions and interests involved in building and planning.

7. To promote greater public awareness of the man-made environment and the forces which shape it.

8. To encourage the preservation of architectural heritage by promoting research and conservation of historic buildings and environments within the region.

9. To promote the availability of architectural services throughout our societies.

10. To encourage architecture which is sensitive to national and regional cultural identities and aspirations, and to socio-economic conditions.

11. To support the establishment of conditions under which architects can carry out their various functions adequately, through the establishment of professional codes of conduct in each member country.

12. To encourage in each country the protection of the rights and status of the architect and the recognition of the architects' functions in society.

13. To promote the development of architectural education in member states and encourage co-operation between individual educational and research institutions.

14. To facilitate inter-recognition of architectural qualifications, and regional exchange of architects, researchers, tutors, and students.

15. To promote the exchange of information on the supply and availability of building materials and products manufactured within the region.

16. To promote the exchange of building and architectural research carried out by schools, national research establishments or by the building industries within the region.

17. To encourage architectural competitions to be at a national or regional level and to establish common accepted guidelines for running such competitions.

ARTICLE 3 For discussion / adoption

Powers | In furtherance of the foregoing objects, but not further or otherwise, the association shall have the following powers:

(i) To make awards of medals or certificates in recognition of significant contributions to architecture or its associated sciences.

(ii) To receive, administer and apply donations, bequests and endowments for prizes, exhibitions, studentships or scholarships or for any other general or special charitable object or purpose connected with the Union or, for any other charitable purpose connected with architecture.

(iii) To publish learned papers, and professional directories and to disseminate news and technical and scientific information between member associations, and to encourage and promote the publication of learned papers, directories, technical and scientific information by each member association.

(iv) To hold meetings and exhibitions within states and at other international gatherings of architects.

(v) To take or hold any property which may be subject to any Trusts but shall only deal with or invest the same in such manner as allowed by law, having regard to such Trusts.

(vi) To acquire, hold, lease or occupy, or dispose of property in furtherance of its charitable activities.

(vii) To invest monies not required for immediate working purposes in or upon such investments or other assets as the Council shall think fit.

(viii) To borrow money for the advancement of its objects on such security as the Council may think fit but subject nevertheless to such conditions and consents as required by law.

(ix) To do all such things as shall further the abovementioned objects or any of them.

ARTICLE 4

Membership

1 The members of the Union are the institutes, associations and societies listed as Member Institutes in the Schedule to this Constitution together with such other institutes, associations and societies as may from time to time apply for, and be admitted to membership. Membership shall be open to any national institute, association or society which in the opinion of Council represents the body of architects in a SADCC country provided that such institute, association or society subscribes to the purpose and objects of the Union and is constituted in a manner consistent with the policies thereof.

2 Observer Members are the groups and organisations listed as Observer Members in the Schedule to this Constitution together with such other groups and organisations as may from time to time apply for, and be admitted to observer membership. Observer membership may be granted, at the discretion of Council, to any group or organisation of architects in a SADCC country where no Member Institute exists provided that such group or organisation subscribes to the objects of the Union and is constituted in a manner consistent with the policies thereof. Observer Members shall have all the rights and responsibilities of full membership except they may not be represented by a delegate at a General Assembly of the Union, and shall not have the right to vote.

3 Membership and observer membership is open only to institutes, societies, associations, groups and organisations which do not discriminate against their own members or potential members on the basis of race, colour, sex, religion, national origin or political persuasion.

4 Application for membership shall be made to the Secretary as prescribed in the By-laws, and admission to membership shall be by a majority decision of all Council members.

5 A Member Institute which in the opinion of Council, ceases to represent the body of architects in a SADCC country, and a Member Institute or Observer Member which, in the opinion of Council, fails to uphold the object of the Union amends its Constitution in a manner inconsistent with the policies of the Union or whose subscriptions remain unpaid for more than one year without special dispensation shall be suspended from membership. Such suspension shall come into effect three months after notice has been given to the Member Institute or Observer Member specifying the default; provided always that if such Member Institute or Observer Member shall rectify the default to the satisfaction of Council the notice shall be withdrawn or the suspension revoked as the case may be.

6 A Member Institute or Observer Member which has been suspended by Council may be expelled by resolution of the Union in General Assembly provided that such resolution is carried by a two-thirds majority of the votes cast. A Member Institute or Observer Member which has been so expelled may apply for re-admission upon rectifying the default or defaults which were the cause of its original suspension.

7 Membership of a Member Institute or Observer Member shall terminate three months from the date that such Member Institute or Observer Member gives notice of its intention to resign, or in the case of a Member Institute, three months from the date that a country in which such Member Institute is located ceases to be within the SADCC group of states.

ARTICLE 5

General Assembly

1 The governing body of the Union shall be a General Assembly of delegates representing Member Institutes together with members of Council which shall be responsible for the general policy of the Union.

2 The General Assembly shall meet at least once in every three years in a SADCC country in which a Member Institute is located; the venue and date shall be determined by Council and the General Assembly shall be convened by giving six months notice thereof to all Member Institutes.

3 Each Member Institute, with the exception of any which have their membership suspended, is entitled to appoint one delegate to attend and vote at a general Assembly; and to appoint one or more observers to attend but not vote; a Member Institute whose membership is suspended shall be entitled to appoint one or more observers to attend but not vote. Each member of Council except an ex-officio member is entitled to attend and vote provided always that if such member is also a delegate he shall not become entitled to two votes. Each Observer Member is entitled to appoint one or more observers to attend but not vote.

4 Voting shall be by a simple majority of those present and entitled to vote and shall be by show of hands unless the General Assembly shall otherwise decide. In the event of a tie the President or Chairman shall have a second or casting vote.

5 The business of a General Assembly shall include: receiving a report from Council of the affairs and finances of the Union since the last General Assembly, approving a programme and budget for the next session, electing a President and Honorary Secretary/Treasurer, appointing regional representatives to Council, and any other business of which one month's notice has been given to the Secretary.

6 The quorum at a General Assembly shall be one-third of the number of persons having the right to attend and vote.

ARTICLE 6

Council

1 The management of the affairs of the Union shall be vested in a Council comprising the President, the immediate Past President as prescribed, Vice-Presidents representing each region, the Honorary Secretary/Treasurer, and the Chairman of its Boards.

2 The President shall be elected by the General Assembly from candidates whose nominations have been received by the Secretary not less than four months previously in the form prescribed in the By-laws. A candidate shall be a person who has been nominated by his National Member Institute and seconded by another Member Institute; to qualify for nomination he shall have served a full term as an officer of a Member Institute and for a minimum of two years as a member of the Council of the Union. The President shall normally hold office from the time of his election until the next General Assembly, but in the event of his death, resignation or inability to act, a Vice-President shall assume presidency for the remainder of the term.

3 An Honorary Secretary/Treasurer shall be elected by the General Assembly.

4 The Chairman of the Board of Architectural Education shall be elected from among the representatives of the National Boards of Education and shall be a full voting member of the Council.

5 The Chairman of the Board of Architectural Practice shall be elected by the General Assembly.

6 Council shall meet at least once each year in a SADCC country in which a Member Institute is located; the venue and date shall normally be decided at the previous Council meeting, but if it is not so decided, the venue and date shall be determined by the President in consultation with the Secretary.

7 The quorum at Council meetings shall be four persons entitled to attend and vote.

8 Council may resolve that a decision shall be referred to all Member Institutes between General Assemblies; in such circumstances a referendum shall be conducted in the manner prescribed in the By-laws.

ARTICLE 7

Officers

1 The officers of the Union shall be the President and the Honorary Secretary/Treasurer.

2 The President shall take the chair at the General Assembly and of all meetings of Council when he is present.

3 In the absence of the President the members of the Council present shall appoint a Chairman for that meeting.

4 The Honorary Secretary/Treasurer shall oversee the finances of the Union and shall report thereon at each meeting of Council.

5 The Secretary shall administer the affairs of the Union in conformity with this Constitution, the by-laws made thereunder, and general policies of the Union, and the directives of Council.

ARTICLE 8

Secretariat

1 A Secretariat shall be established and maintained at such location as the Council shall decide; The Secretariat shall comprise the administrative headquarters for the Union and a depository for its records.

2 All formal notices to Member Institutes and Observer Members shall be addressed to their secretaries, and shall be deemed to have been delivered thirty days after having been posted by airmail.

ARTICLE 9

Finances

1 The funds of the Union shall consist of subscriptions payable by Member Institutes and Observer Members, grants, contributions, bequests, and the proceeds from sales. Such funds shall be applied exclusively to the purpose of the Union as directed by Council and/or authorised by the Honorary Secretary/Treasurer.

2 The annual subscription payable by each Member Institute and Observer Member shall be assessed as provided in the By-laws; the bais having been reviewed and adjusted by Council after each General Assembly to provide the necessary funding for the approved programmes. Subscriptions shall be due for payment each year by the 31 March, in exceptional circumstances Council is empowered to grant special dispensation to allow subscriptions to be paid at a later date or by instalments.

3 The Bankers to the Union shall be
and an aacount or accounts shall be operated at their
Branch,
or at such other branch as Council may decide.
The signatories to such accounts shall be the Honorary Secretary/Treasurer, the Secretary and such other persons as Council may decide.

4 Council shall approve annually the appointment of auditors.

5 The Honorary Secretary/Treasurer shall cause books of accounts to be kept and shall arrange for annual accounts of income and expenditure to be prepared and audited and presented to Council for approval. The finanacial year shall be from 1 January to 31 December.

6 The Union shall indemnify Member Institutes, officers and employees of the Union in respect of any action taken or any liability incurred by such Member Institutes, officers or employees in all matters for which they have expressed or implied authority to act on behalf of the Union.

7 The responsibility for payment of travel and accommodation expenses incurred by Council, board or committee members in attending meetings, shall be decided by Council and prescribed in the By-laws.

ARTICLE 10

Boards and Committees

Council is empowered to establish and disband boards and committees and to appoint or dismiss the members thereof, as it may deem necessary for the work of the Union and the management of its affairs; any such board or committee shall be constituted as prescribed in the By-laws, and given such terms of reference as Council may decide, provided that no board or committee shall be entrusted with any property belonging to the Union. All acts and proceedings of such boards and committees shall be reported in due course to the Council.

ARTICLE 11

By-laws

Council is empowered to make, amend and repeal By-laws not inconsistent with the charitable objects of the Union as may be deemed necessary to regulate: admission to and suspension from membership; the nomination of President and Honorary Secretary/Treasurer; the conduct of referenda; the duties of officers; the assessment and collection of subscriptions; payment of travel and accommodation expenses for members attending Council or other meetings; the procedure for constituting and managing boards, committees and sub-committees; and other similar matters.

2 A resolution to create, amend, or expunge a By-law shall require a vote in which the resolution is carried by a simple majority of all voting members of Council for the time being, and shall take effect three months from the date that all Member Institutes have been given notice thereof provided that not more than one-third of the Member Institutes shall have notified the Secretary of objections thereto.

ARTICLE 12

Amendment of Constitution

This Constitution with the exception of Article 2, Article 3, this Article and Article 13 thereof may be amended by way of omission or addition at a General Assembly provided that notice of motion shall have been given to the Secretary not less than two months prior to the date of the General Assembly and the resolution to amend shall have been carried by a majority of not less than two-thirds of the votes cast.

2 Upon receiving a notice of motion to amend the Constitution the Secretary shall forthwith notify all Member Institutes and members of Council; Council shall prepare a report on such proposed amendments for presentation to the General Assembly.

3 Any amendment to the Constitution shall take effect immediately following the meeting at which such amendment is adopted.

ARTICLE 13

Dissolution

1 The dissolution of the Union shall be by a simple majority vote in a referendum following a resolution at a General Assembly at which the dissolution is properly upon the agenda, or following a General Assembly of which proper notice was given but which failed to produce a quorum.

2 In the event of the dissolution of the Union the Council last in office shall be responsible for disposing of all funds and assets to another charity having similar objects and for the winding up of all outstanding affairs and in default of another charity having similar objects then to some exclusively charitable purpose.

SCHEDULE TO THE CONSTITUTION

Founder Member Institutes	ANGOLA	:	Departmento Arquitectura Faculdade de Engenharia, Luanda.
	BOTSWANA	:	Botswana Institute of Development Professions, Gaborone.
	LESOTHO	:	Lesotho Architects, Engineers and Surveyors Association, Maseru.
	TANZANIA	:	Architectural Association of Tanzania, Dar-Es-Salaam.
	ZAMBIA	:	Zambia Institute of Architects, Lusaka.
	ZIMBABWE	:	Institute of Architects of Zimbabwe, Harare.
Founder Observers	AZANIA	:	Construction Planning Unit of African National Congress, based in Tanzania.
	ZAMBIA	:	School of Environmental Studies at Copperbelt University, Kitwe, Zambia.

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General Assembly

ARTICLE 5

1 The governing body of the Union shall be a General Assembly of delegates representing Member ~~Institutions~~ together with members of Council which shall be responsible for the general policy of the Union.

2 The General Assembly shall meet at least once in every two years in a SADCC country in which a Member ~~Institute~~ is located; the venue and date shall be determined by Council and the General Assembly shall be convened by giving six months notice thereof to all Member Institutes.

3 Each Member Institute, with the exception of any which have their membership suspended, is entitled to appoint one delegate to attend and vote at a General Assembly; and to appoint one or more observers to attend but not vote; a Member Institute whose membership is suspended shall be entitled to appoint one or more observers to attend but not vote. [~~Each member of Council except an ex-officio member is entitled to attend and vote provided always that if such member is also a delegate he shall not be entitled to vote.~~] Each Observer Member is

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entitled to appoint one or more observers to attend but not vote.

4 Voting shall be by a simple majority of those present and entitled to vote and shall be by show of hands unless the General Assembly shall otherwise decide. In the event of a tie the ~~President or~~ Chairman shall have a ~~second or~~ casting vote.

5 The business of a General Assembly shall include: receiving a report from Council of the affairs and finances of the Union since the last General Assembly, approving a programme and budget for the next session, electing a President, VP an Honorary Secretary/Treasurer, ~~appointing regional representatives to Council,~~ members and any other business of which one month's notice has been given to the Secretary.

6 The quorum at a General Assembly shall be one-~~third~~ half of the number of persons having the right to attend and vote.

ARTICLE 6

1 The management of the affairs of the Union shall be vested in a Council comprising the President,

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the immediate Past President as prescribed, Vice-President, Honorary Secretary/Treasurer. These four positions to be held by representatives of four different countries. The council shall also consist of two members of council specifically elected by the General Assembly to be responsible for architectural education and architectural practice. The Council is empowered to appoint from time to time as may be necessary Council non-voting members who would be in charge of specific projects of the Union.

2 The President and vice president shall be elected by the General Assembly from candidates whose nominations have been received by the Secretary not less than four months previously in the form prescribed in the bye-laws. A candidate shall be a president, past president or equivalent person who has been nominated by his National Member Institute and seconded by another Member Institute and for a minimum of two years as a member of the Council of the Union. The president shall normally hold office from the time of his election until the next General Assembly, but in the event of his death, resignation or inability to act, a Vice-President shall assume presidency for the remainder of the term. The president may offer himself for one more term only.

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3 The Honorary Secretary/Treasurer shall be elected by the General Assembly. This candidate must previously have been an office bearer in his own Institute and nominated by his own Institute.

4 The Candidates to become council members for Education and Architectural Practice shall be elected by the General Assembly or Council members.

5 Council shall meet at least once each year in a SADCC country in which a Member Institute is located; the venue and date shall normally be decided at the previous Council meeting, but if it is not so decided, the venue and date shall be determined by the President in consultation with the Secretary.

6 The quorum at Council meetings shall be 50% of the persons entitled to attend and vote, or not less than three whichever is the greater.

7 Council may resolve that a decision shall be referred to all Member Institutes between General Assemblies; in such circumstances a referendum shall be conducted in the manner prescribed in the bye-laws.

8 Upon recommendation from Council; the General Assembly can elect additional members onto Council.

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Officers ARTICLE 7

1 The officers of the Union shall be the President and the Honorary Secretary/Treasurer.

2 The President shall ~~not~~ take the chair at the General Assembly and of all meetings of Council when he is present.

3 In the absence of the President ~~the members of the Council~~ [the vice president] shall chair that meeting ~~In his absence (as above)~~. In the absence of both, the members of Council shall elect a chairman.

4 The Honorary Secretary/Treasurer shall oversee the finances of the Union and shall report thereon at each meeting of the Council and at the General Assembly.

5 The Secretary shall administer the affairs of the Union in conformity with this Constitution, the bye-laws made thereunder, and general policies of the Union, and the directives of Council.

Secretariat ARTICLE 8

1 A Secretariat shall be established and maintained at such location decided by the General

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empowered to grant special dispensation to allow subscriptions to be paid at a later date or by instalments.

3 The Bankers to the Union shall be proposed by the Council and ratified by the General Assembly and an account ~~or accounts shall be~~ operated at ~~their~~ such Branch, or ~~at such other~~ branch as Council may decide. The signatories to such accounts shall be the Honorary Secretary/Treasurer, and such other persons as Council may decide.

4 Council shall approve annually the appointment of auditors. ~~The~~

5 The Honorary Secretary/Treasurer shall cause books of accounts to be kept and shall arrange for annual accounts of income and expenditure to be prepared and audited and presented to Council for approval. The financial year shall be from 1 January to 31 December.

6 The Union shall indemnify Member Institutes, officers and employees of the Union in respect of any action taken or any liability incurred by such Member Institutes, officers or employees in all matters for

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which they have expressed or implied authority to act on behalf of the Union.

16 The individual council member and his/her Institute will be responsible for payment of travel and accommodation expenses ~~and endorsed by Council.~~

Boards and Committees

ARTICLE 10

Council is empowered to establish and disband boards and committees and to appoint or dismiss the members thereof, as it may deem necessary for the work of the Union and the management of its affairs; any such board or committee shall be constituted as prescribed in the bye-laws, and given such terms of reference as Council may decide, provided that no board or committee shall be entrusted with any property belonging to the Union. All acts and proceedings of such boards and committees shall be reported in due course to the Council.

Bye-laws

ARTICLE 11

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membership; the nomination of President and Honorary Secretary/Treasurer; the conduct of referenda; the duties of officers; the assessment and collection of subscriptions; the procedure for constituting and managing boards, committees and sub-committees; and other similar matters.

2 A resolution to create, amend, or expunge a Bye-law shall require a vote in which the resolution is carried by a simple majority of all voting members of Council for the time being, and shall take effect three months from the date that all Member Institutes have been given notice thereof provided that not more than one-third of the Member Institutes shall have notified the Secretary of objections thereto.

Amendment ARTICLE 12
of
Constitution

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charitable purpose as approved by the last General Assembly.

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5 The business of a General Assembly shall include: receiving a report from Council of the affairs and finances of the Union since the last General Assembly, approving a programme and budget for the next session, electing a President and Honorary Secretary/Treasurer, appointing regional representatives to Council, and any other business of which one month's notice has been given to the Secretary.

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ARTICLE 6

Council

1 The management of the affairs of the Union shall be vested in a Council comprising the President,

the immediate Past President as prescribed, Vice-President, and Honorary Secretary/Treasurer. These four positions to be held by representatives of four different countries. The council shall also consist of two full voting members elected by General Assembly responsible for architectural education and architectural practice. The Council is empowered to appoint on to Council as may be necessary non-voting Members responsible for other specific projects.

2 The President and vice president shall be elected by the General Assembly from candidates whose nominations have been received by the Secretary not less than four months previously in the form prescribed in the bye-laws. A candidate shall be a person who has been nominated by his National Member Institute and seconded by another Member Institute; to qualify for nomination he shall ~~have served a full term as~~ a President, ~~past President~~ or equivalent of a Member Institute and for a minimum of two years as a Member of the Council of the Union. The President shall normally hold office from the time of his election until the next General Assembly, but in the event of his death, resignation or inability to act, a Vice-President shall assume presidency for the remainder of the term. The President may offer himself for one more term only.

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UIA Seminar, Hania, Crete, September 1992

IN SEARCH OF THE APPROPRIATE.

A view from Southern Africa

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UIA Seminar, Hania, Crete, September 1992

IN SEARCH OF THE APPROPRIATE.

A view from Southern Africa.

Introduction

Appropriate: 'suitable' or 'proper' from the Latin root 'own'.

The notion of appropriateness, although it has been with us as long as the word for it, has only begun to be applied to architecture relatively recently. This is not because we have only now realised that an appropriate thing is better than an inappropriate one, but because our appetite for and ability to produce inappropriate solutions has increased greatly while, at the same time, in parts of the world, inappropriate solutions have become a luxury which we can no longer afford. The search for the appropriate has not been made any easier by the fact that the complexity resultzing from increasing economic technical and cultural interdependence is sometimes beyond the understanding of decision-makers, while the sheer pace of development required imposes on us a timetable in which there is often no room for the research necessary for identifying the appropriate solution.

The above is doubly true for the developing world. Not only has the notion of appropriateness come to us late, but it also often came not as a notion, but as a ready-made "appropriate solution". It is amazing how few people realise that "appropriate solutions" do not travel well.

Although great strides are being made in our region in many aspects of development, the design of higher education facilities seems to pose a particular problem as far as appropriateness is concerned. The reasons for this situation seem to be the following:

Our higher education is modelled on an academic world culture, tending to spread from the developed to the developing world. To a relatively unsophisticated public, social function is often associated with built form, and with the buildings of the developed world, being far better illustrated than those in the third world, the image of the desirable and correct facility tends to be the first world model, however inappropriate it may be for our region's climate or economic situation.

Higher education facilities are usually commissioned by the state governments, whose desire to build monuments to themselves is certainly not without precedent all over the world. While we accept the idea of the necessary monument, the scale and nature of national universities, like national airlines, is often a matter of pride rather than necessity. Many of the educational needs of our region could be more economically satisfied at a regional level. Political and tribal considerations also have a history of overriding real needs. Architects often find it quite difficult to enter into dialogue with economists regarding the resources and characteristics of our region, while at the same time being as tempted as any to design and build monuments.

The context

The ten SADC countries define the southern Africa region for the purposes of this discussion, but we also make reference to data for subsaharan Africa and Botswana. The states in the SADC region are fairly new, and have tended to have their governments control and direct their economies and educational systems. Past political instability has hampered progress. There presently appears to be a spirit of cooperation to a greater degree than previously, which may lead to more genuine economic links being permitted. The region has low gnp, and undeveloped human resources are the main reason, despite substantial natural resources.

Typically, schooling in the region comprises around 7 years for primary and five years for secondary level. Tertiary studies include Universities, Polytechnics and various high-level vocational training colleges. Higher education is seen as being of paramount importance for Africa's future. Subsaharan university enrollments have grown from 1200 in 1960 to 440 000 in 1983, but present indications are that the present structure is unsuitable and the efficacy of the systems is questionable.

The region is characterised by unpredictable climatic conditions, undeveloped or undervalued natural resources and, above all, underdeveloped human resources.

Teachers are generally in short supply; staff development in Africa at tertiary level is lagging badly. Facilities, funds and staffing are generally inefficiently structured. Given this, the pace of development required, multiplied by a 3% population growth rate and the need to satisfy the most basic of human needs is not being achieved, despite the fact that certain states have excessive numbers of graduates in certain fields.

For Botswana, the defined national objectives are democracy, development, self-reliance and unity. Planning of development has the objectives of sustained development, rapid growth, economic independence and social justice. While short term fluctuations in emphasis occur, the aim is to balance all of these in the longer term. This set of objectives is not untypical of states in the region.

In the educational sphere, recent deterioration is reducing the capacity of Africa's tertiary institutions to contribute to regional development. These establishments must have their quality restored and then considerably improved to allow the region to make its own best uses of the rapid advance of science and technology. Most states, however, will first need to rearrange their systems to fit present changed economic circumstances before moving on to improvements. Institutions, campuses, departments and programmes need to be combined into larger, more viable units. Staffing, in particular academic but also non-academic, needs to be reduced while upgrading levels of relevant training and experience. Student numbers need to be stabilised by increasing entry and performance requirements while introducing the notion of real costs for board and lodging, this being mitigated for genuine cases of need. From this, a sound base would be established to expand necessary graduate numbers and the scope of the research and community activities presently struggling to survive. The utilization of existing facilities and the planning of new ones is an integral part of such restructuring.

Although the advantages of appropriate solutions seem self-evident, we would like to highlight the penalties imposed on our region by this often unconscious preference for the inappropriate ones. These costs, while mostly hidden, are

becoming unsupportable to our resource-starved economies and social systems.

Proportionally high expenditure on higher education deprives other, often more necessary levels of education of the necessary funding. Within higher education, the proportionally high expenditure on buildings depletes higher educations budget with the result that there are insufficient funds for the proper running of the facility.

Inappropriate design with regard to climatic controls often commits the institutions to ever mounting costs of purchasing, running, maintaining and replacing of mechanical climate controlls, while a lot of unnecessary use of sophisticated materials, construction methods and finishes makes it necessary to employ specialised or highly skilled construction and maintenance labour, which often needs to be imported and which, even if locally available, does not come cheap.

The widening gap between the rich and the poor, while acceptable to most on the rich side, is not part of our Governments stated aims and objectives, and yet it can be seen as a result of the continuous over-provision for the needs of the upper strata of our societies.

The graduates of higher education institutions often either leave for richer countries in search of the high standard, to which they have become accustomed, or stay on only to take up what they think is their rightful place among the country's new aristocracy. Some also show signs of becoming permanent students highly qualified but not contributing to the society.

The tertiary facility

Adverse economic conditions bring the need for appropriate solutions into sharp relief and have produced very satisfactory results in secondary and vocational facilities where funding was restricted. The search for such solutions should be equally rigorous at each level of planning.

Academic plan

Various historical and social phenomena have created a number of models, thorough understanding of which is necessary in deciding whether any one of those is applicable, or whether the project is without precedent. This, in turn, calls for an in-depth understanding of the context i.e. the role that is, should be and could be played by the institutions of higher learning in our society. As this is to a certain extent a political decision, politicians should be expected to participate in its making. Their influence should be moderated by those professionally involved in academic, social and related developmental issues.

Higher education has a particularily important role to play in the society, and is seen as the "engine which pulls the train". While not in any way disagreeing with the basic logic of this approach, we feel that better use of resources in the sphere of higher education could have an important impact on education as a whole. If, through increased funds, better education was provided at primary and secondary levels, as well as better vocational training, not only would there be an improvement in the quality of higher education, but also the "train" could begin to be partly self-propelled.

The social benefits of improved primary and secondary education are particularily important in a region undergoing such swift and profound economic and social change. The population's ability to become more than passive spectators has to be improved and understanding of the forces governing peoples lives has to be fostered if culture and self-esteem are to be preserved and developed.

The priority assigned to various fields of the economic and social development process should be reflected in the academic planning in order to correct present imbalances. Also to be taken into account is the fact that our region does not exist in isolation and that the process of building up of our higher education system is, of necessity, a very gradual one. External help is and will continue to be needed for many years to come. Specialists in subjects with a relatively limited social or cultural content can continue to be imported from other regions for a long time to come without any drastically negative effects, while others, whose field of expertise is closely related to local conditions, such as architecture, should be trained locally.

Programmes for regional co-operation in the field of higher education should be developed or strengthened, thus removing the unnecessary burden of providing a full range of higher educational opportunities on every individual country. Consideration must also be given to rationalising existing facilities, departments and teaching programmes to improve their viability.

Courses should be provided that can make use of existing employers, whose potential for training and education should be maximised. Part-time and distance courses should be given a higher priority,thus giving more students the opportunity of financing their own higher education, while utilization of physical facilities should ensure year-round use. Courses of long duration should be, whenever possible, split up into smaller components so that studying could be interrupted with periods of work, which would not only make it financially easier for the students in a more market-oriented milieu, but also allow for some practical application of newly acquired expertise.

The scope of the grown facility must be clearly and realistically considered in order to properly plan for growth.

The project team

The architects of our region, while as well trained as any, are often considered by the client not to be quite equal to the task of planning and designing something as big and complicated as a university. The result is that foreign firms are often invited to do the job. Those foreign firms are, and reasonably so, chosen for their experience in designing facilities of a similiar nature. Unfortunately, they often apply a number of "stock solutions", perceiving the problem to be mostly of functional or aesthetic nature. However, while this may be the case in the developed world, this is decidedly not so in our region.

The choice of architect, whether local or imported, often leaves much to be desired. Local architects sometimes get government commissions as a result of a rota system which, while seemingly fair, is often simply a way of avoiding making potentially contentious decisions by the client. The decision is obviously easier in the case of expansion of an existing facility, or where the system has been in existance for long enough to give the local architects a chance to become specialised. When imported architects are commissioned, it is often for reasons of their "star quality", where the chances are that the architects main concern may be to perpetuate this image,rather than to find

appropriate solutions to a local problem.

As mentioned above, because of the scale of the undertaking as well as the perceived national importance of the institutions of higher learning, in most cases it is the government that is the client. In addition to the specific disadvantages of having a government ministry or department for a client, where many problems arise out of perceived higher status of a government employee over any other person, all the usual disadvantages of having the client who is not the user are present.

The most negative result of this often less than satisfactory relationship between the architect and the client is usually lack of a coherent brief. Although it is perfectly understandable that there may not be sufficient expertise or experience within the client body to prepare such a document, this lack is very often not recognised or acknoweleged, nor is the necessary expertise allowed to be imported, usually for financial reasons.

As it can be said that a good building is a product of not only a good architect, but a good client and a good relationship between the two, it is most important that this be achieved. Following are some recommendations which we feel would improve the situation in this respect and, hopefully result in appropriate solutions:

The client body should, whenever possible, be composed of not only of the financial backers but also of educational specialists, members of the academic staff, administration, housekeeping, maintenance and students, all of whom should be guided and advised by an independent, accomplished and locally experienced architect/planner. The region has a number of established higher education facilities, whose own planning units employ number of persons fitting this description. In the case of a brand new institution, the academic appointments have usually not yet been made, which makes arriving at a detailed brief without clear competent guidance from experienced academics impossible.

It is often of benefit to have the firm/s of architects selected through a competition for an overall masterplan, with the brief for that competition having been prepared by the client body, as described above. The jury should be composed of selected number of representatives of the client body, with an additional, regionally recognised architect.

The more detailed brief for the individual buildings and external spaces should be developed with the participation of the architect chosen for the master plan, and of future members of the faculty and staff. If such appointments have not yet been made, or if their experience is limited, external specialist consultants should be brought in, though their influence should be moderated by persons with local expertise.

If the scope of the project is too large for the winning architectural firm to handle. the selected firm should be allowed to enter into an association with other practices, preferably with the runners-up in the competition, in order to maintain control over the entire project. This kind of authority can be given to a practice only if the aims and objectives of the winning master plan are very clearly defined and satisfy an equally carefully designed brief.

Analysis of requirements

Once the brief is clear, the standards and regulations which are appropriate and/or required must be considered and defined. Appropriate

standards are a contentious area, and may be particularly difficult to define in ways that reconcile environment, access, hazard, space and fittings with each other and the financial constraints. The issue must, however, be confronted as the concept of appropriateness hinges on these decisions.

The staff employed by our higher education facilities are often recruited in the developed world and bring with them demands for excessively high standards as pre-conditions for their employment. This factor must be taken into consideration.

A particular requirement, because of the substantial residential component typical in the region, is the need for the institutions to function as communities. This function should be recognised and the positive aspects of this feeling of community should and can be reinforced with appropriate planning. What we feel should not be emphasised is the difference between this and all the other existing communities. Exclusivity breeds without any help from the planners. Isolated sites impose notable extra costs in creating an entire social and municipal infrastructure.

Site criteria

Choice of site: Although this decision is usually made at an early stage and for reasons often unrelated to its suitability for the purpose, we feel that it would be an improvement if the brief allowed a choice between several available sites, a situation still possible in our region where large pockets of land are still held either by central or local government. This choice should be well justified, with the quality of the justification being a fairly good indication of the architects' grasp of the overall impact and significance of the proposed development. The brief should be specific about the initial size of the project, its envisaged rate of development and its optimum size. The growth aspect is of particular importance in our situation and should be dealt with decisively in this initial stage.

Use of site. Although the cost of land is still comparatively low, it is a finite resource and as such should not be allowed to be wasted. An optimum density should be arrived at, which on one hand limits the necessity for use of mechanical lifts, while on the other leaves a sufficient amount of open space for light, ventilation and other uses. Our climatic conditions permit extensive use of outdoor spaces, which can be enhanced with a minimum of intervention. The patterns of social interaction also increase the value of open space as a venue for socialising, and such usage should be promoted wherever possibilities exist.

Preparation of brief

As described in the previous section, the brief becomes the single most important input into a succesful design. It should be prepared in several stages with various carefully defined degrees of detail. The amount of research necessary for its sucessful formulation should be foreseen and budgetted for. Any attempted savings at this stage are likely to result in increased expenditure later.

Although our region does not abound in buildings which have outlived their uses, the idea of using existing buildings, even if already occupied by another institution, should be considered. The advantages seem to outweigh the discomforts with the main benefits being that the actual teaching can begin much earlier than if it had to wait for the completion of the building programme, and that the staffing is completed in time for the staff members to be given their

say in the formulation of the detailed requirements for their respective departments.

Design

The architect engaged in developing a brief targetting appropriateness is likely to carry this attitude through to the design stage. The final product should avoid paying mere lip-service to the idea. Application of the idea should also tend to produce some design consistency in the developing campus in reflecting local resources and climate. An example is the initial architecture and planning for the University of Botswana, while a lack of concern shows in recent work on the campus.

Services, construction and maintenance

We are not generally in a position to run sophisticated energy generation schemes for a campus. Universities use the public utilities for electricity, water, drainage and solid waste removal, with the exception of medical training facilities with incinerators. Appropriate here relates more to suitable thermal design and minimising of artificial illumination, as well as to ensuring that there is space and access for easy maintenance of the municipal services. There is a need to design for fault tolerance in situations where services/maintenance are in question.

Preference should be given to common or popular construction methods, materials and components.

Critical in maintaining academic standards is the ability to obtain spare parts for maintenance and repair of equipment, routine replacement, upkeep and upgrading of plant, utilities, vehicles and equipment, and supplies of necessary consumables. We note the sad report from Ibadan in Nigeria that 'For several months now we have been expected to run a physics laboratory without electricity, perform biology and zoology experiments without water and get accurate readings from microscopes blinded by use and age' as a not uncommon phenomenon.

Conclusion

Africa needs to use its resources far more effectively, and we believe that appropriate development of tertiary education facilities can make a notable contribution.

Ewa Gurney and David Young

cc: SADCC UA
BIDP AI
IAZ

References

Education in Subsaharan Africa-World Bank Policy Study: Author World Bank, New York, 1985

Issues Related to Higher Education in Subsaharan Africa: World Bank Staff Working Paper no. 780: Author Keith Hinchliffe, New York, 1985

National Development Plan 7: Ministry of Finance and Development Planning: Gaborone, 1991

Masterplan Review for University of Botswana and Swaziland, Anderson & Anderson: Author D Young. Gaborone, 1982.

Erskine visit, July 1992

Report of group scheme

Members: (please insert: I don't have record of names of the 5 members)

Guides: N Keller; D Young

The brief was initially accepted and work commenced. Contradictions began to emerge regarding traffic flows & planning back towards the general layout of the area.

After a period of argument, it was agreed that a broad review be made of the area layout. The stream bed in the south was taken as a key natural feature, providing a foil for denser, taller accommodation south of the stream. The bed was also linked to the centre by a park, and main roads were realigned to give vehicle access tangential to the centre, at its north side. The filling station was taken out of the centre, being seen as a vehicle-related element placeable freely on the road system.

Denser housing and allied facilities around the centre were incorporated within the main roads, and parking/delivery fingers were formed off the east and west sides. The police station was considered more appropriate north of the access road, which was also considered a suitable place for sports facilities shared by the area within the major through roads.

The heart of the central area was seen as providing facilities for the area as well as a certain level of dispersed services for the whole city. In view of the constant shortage of developable space in urban Botswana, it was considered that the centre should be seen as a fairly dense development. The commercial, social, sports and light workshop facilities were seen as the main activities at ground level, with a variety of size and service options. Office and residential components were seen as grading upward, parking being provided in defined areas for residents. An important aspect of the scheme was the integration of daytime and nighttime activities, which encouraged the mix of uses referred to above.

The physical arrangement of the central facilities was a succession of modest open spaces linked by fairly narrow walkways, to help create and maintain a busy atmosphere. Pedestrian ways other than at the north access road and the south park were provided with roofs and pavements. Street furniture in the form of seats, kiosks for vendors, refuse bins etc were envisaged throughout, related to the level of activity.

At the park end, certain facilities were seen as opening up to enjoy the space, such as the display section of the library and the outdoor seating related to the community hall. Seating and paving was seen as grading from busy near the centre to main walks and occasional seating through the park.

Mail - Erskine.TXT

Erskine visit, July 1992

Report of group scheme

Members:

Guides: N *; D Young

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(Aug)58

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DATE: 09-04-92 08:06 am
FROM: David Young, Architect RB371181
TO: UIA
CC:
SUBJECT: (A0kp)56 UIA Workshop Group "Education & Cultural Spaces"
ATTACH:

Our 24-hour fax (+267) 372800

Secretariat, Union Internationale Des Architectes

Attention: Y Michael / S Tachmintzoglou

RE: CHANIA SEMINAR, SEPTEMBER, 1992

[illegible]a Gurney requested my assistance with her paper for the seminar, and I hereby confirm that I will be attending following your letter to her dated 29th July, 1992.

Flights from Botswana are such that I shall be arriving in Chania on Saturday, 19th September.

I shall be happy to cover the cost of the extra day myself.

Would you please inform me whether you can advise the hotel, or whether I should do so directly.

Yours faithfully,

[illegible]avid Young
3rd September, 1992

cc: E Gurney

UIA UNION INTERNATIONALE DES ARCHITECTES
GROUPE DE TRAVAIL "ESPACES EDUCATIFS ET CULTURELS"

SECRETARIAT

REF.:

DATE:

8.4.1992

Secretariat of the Working Group "Educational and Cultural Spaces"

To all W.G. members

Dear friends and colleagues,

I have the pleasure to inform you that the XI International UIA/UNESCO Seminar will be organized in cooperation with the Technical Chamber of Greece.
It will take place in Chania/Crete from 20 to 26 September 1992 . The subject is "Planning and Design of Higher Educational Facilities".
The official invitation of the Technical Chamber of Greece will follow very soon. This is to provide you with some general information:

Dates : Arrival : Sunday 20 Sept. 1992
Departure : Saturday 26 Sept. 1992

Lodging : Hotel Panorama (5klm from the center of Chania)
Chania, Crete ,
Tel. (821) - 54200-2, -31700-6 TLX (291)-140 RAMA GR FAX 00(821)-31708

Climate: The climate at this time of the year, is usually rather worm and pleasant.

Transportation between the hotel and the town of Chania : Public transportation

Airport : The Chania airport is situated 14 klm east of the town of Chania. There is a bus connection between the airport and the city terminal . We will try to organize a special transport for seminar participants arriving with the afternoon flights from Athens .

Dep. Athens	Arr. Chania	Flight No
19,15	20.00	OA 535
22,23	23,20	OA 539

Flight arrangements : Unless you have other plans, book your flight directly to Chania and Herakleion are directly connected with some european cities, with Thessaloniki as well as with Rhodes . Examine also the possibilities existing in your country of charterflights, as might be some of them going to Crete.

Harbour : The overnight travel by sea from Pireaus, is pleasant. Ships are arriving in the harbour of Chania early in the morning, departing from Pireaus at 18.00 or 19.00 every day.

Herakleion Airport : Herakleion , is the other major airport of the island . There is a frequent bus connection between Herakleion and Chania.

Accompaning Persons : Lodging and meals are free of charge. However a contribution of 600 US $ will be charged for each accompaning person.

Before and after : If you schedule to stay before or after the Seminar in Crete or elsewhere in Greece, please contact :
George's Travel Service Ltd
4, Nikis str. Athens 105 63
Tel. 3248036-9 FAX: 3233030

Excursions : A half day visit of Technical University of Crete , campus in Chania, and a day visit to the University of Crete Campus in Rethymnon and Herakleion, including a short visit to the famous Minos Palace in Knossos and the National Museum of Herakleion.

Reservations : Do not forget that Crete is a place which attracts many tourists especially this year. Due to its location south of the mainland the tourist season goes up to November. As a matter of fact is mostly advisable to fix your plans and to make your reservations as soon as possible .

UIA UNION INTERNATIONALE DES ARCHITECTES
GROUPE DE TRAVAIL "ESPACES EDUCATIFS ET CULTURELS"

SECRETARIAT

REF.:

DATE:

Call for papers : Taking into consideration the summer vacation, the remaining time is short . Please prepare and send me your contribution by the end of May so that the International Preparatory Commission will be able to prepare the Seminar.
Please find enclosed the objectives of the Seminar.
Each presentation should be restricted to no more than 15 minutes and all papers will have to be in English or French.

Publication : As usually the contributions will form the Proceedings of the Seminar. For this purpose the members of the W.G. are kindly requested to prepare their presentations in advance including possible drawings and /or photos.

Last but not least : Do not hesitate to call me or to contact me for any information :

Office : 8.00 - 15,30 (local time) 32.22.177

Private : 17.00 - 6,30 (next day !) 80.13.349
till June, Summer months 89.60.147

Fax: 32.48.819 or Technical Chamber of Greece Fax.32.21.772

Best wishes

Yannis Michael

Sophia Tachmintzoglou

Commonwealth Association of Architects

66 Portland Place, London W1N 4AD Telephone 071-636 8276/7586 Telex 22914 ref C001 Fax 071-255-19
Secretary: George T. Wilson, A.A Dipl., F.R.I.B.A.

COPY TO DY. - DAVID YOUNG ARCHITECTS

FACSIMILE MESSAGE

TO FAX NO: 010 267 373533 GABORONE BOTSWANA

ATTENTION OF MS DUKIE RICHARDSON BIDP

DATE: 30 July 1992

FROM: George Wilson, CAA LONDON

PAGE..... of.....

Thank you for your fax of today's date. A good idea. I know nothing planned in the immediate future. CAA Executive who met in London in March, is interested to assist funding for resource persons for suitable Seminar in Botswana and Namibia as contained in my letter to David Young, June 18. Likewise, others, to Arc.Assoc.of Kenya, who celebrated their 25th Anniversary this year but I have not heard any more from Tuesday Gichuki, VP Africa region.

John Wells-Thorpe and Stanley Cox are currently in Accra, Ghana, doing another Job Management Seminar. Following the visit of the Malawi Minister of Works, Bernard Zingano, to the RIBA, I have put forward a suggestion to the RIBA Overseas Committee for a well-known RIBA architect/s to visit Architects/Institutes in East and Southern Africa, as Swedeplan Botswana has done with Ralph Erskine. Incidentally, I should be interested to have an article with photogrraphs for next CAA NEWS, the July edition of which was despatched to yourselves on July 15th.

On the positive side:
1. 5th Asian Congress of Architecture (ACA-5) Lahore, Pakistan, October 24-28 1992, to which the CAA Council will attend and have a meeting beforehand.

2 CAA General Assembly and Conference Mauritius May 1994. Current theme "Climate and Architecture" and a workshop on "Cyclone Construction". Do encourage your members to attend as it is relatively easy to travel and an interesting venue, let alone for a conference as well as a holiday!

BOTSWANA INSTITUTE OF DEVELOPMENT PROFESSIONS

P.O. BOX 827 GABORONE BOTSWANA TEL. No.

ARCHITECTS SURVEYORS ENGINEERS TOWN PLANNERS

SCHEDULE OF REGIONAL EVENTS DRAFT

1. 5TH ASIAN CONGRESS OF ARCHITECTURE (ACA-5) LAHORE **PAKISTAN** - OCTOBER 24 - 28 1992.

2. SADCC UNION OF ARCHITECTS COUNCIL MEETING HARARE **ZIMBABWE** - NOVEMBER 1992.

3. SADCC UNION OF ARCHITECTS COUNCIL MEETING MASERU **LESOTHO** - FEBRUARY 1993.

4. CAA GENERAL ASSEMBLY AND CONFERENCE. THEME - 'CLIMATE AND ARCHITECTURE'
WORKSHOP - 'CYCLONE CONSTRUCTION'
MAURITIUS - MAY 1994

5. CAA JOB MANAGEMENT SEMINAR GABORONE AND WINDHOEK **BOTSWANA** AND **NAMIBIA** - DATE FOR BIDP OR SADCC AND NIA PROPOSAL

6. AFRICA UNION OF ARCHITECTS COUNCIL MEETING CAIRO EGYPT - DATE TO BE ANNOUNCED.

7. AFRICA UNION OF ARCHITECTS 3RD TRIENNIAL CONGRESS AND AFRICABAT 11. THEME - 'THE AFRICAN CITIES IN THE YEAR 2000' LOME
TOGO - 26 - 31 OCTOBER 1992.

D. RICHARDSON
JULY 1992

SADCC UNION OF ARCHITECTS

Background

In the south of Africa, a conflict deepened during the 1970s and 80s, during which the National Party regime in South Africa, the major economy in the region, tried to maintain dominance over the region through a combination of military, economic and other manipulation. SADCC was set up by the victims of this domination as a form of self-defence agfainst the non-military aspects of the conflict. It set about creating working links between the member states in areas such as infrastructure and economic relations, many of which have now begun to operate, redefining the infrastructure of the region in a more flexible way.

While economic cooperation has not moved as far as infrastructure, the basis has been created for a workable regional organization where distances are not excessive, making it a practical forum for developing cooperative structures. It would be extreme to compare this to the EC, but there could be common threads developing by cooperation over a period of time in the joint interests of all the peoples and states in the area. It was in this spirit that SADCC Union of Architects was envisaged at a meeting in Harare in 1989 and constituted in Gaborone in 1990. The initial term of office was mainly concerned with trying to set up the organization and with collecting data on the member architects institutes. It has now been agreed that the bank account and postal address for secretariat will be in Gaborone, Botswana, the seat of the SADCC organization.

SADCC UA is a grouping of member institutes in SADCC countries, together with representatives where available from SADCC countries which do not have institutes, as well as representatives of architectural education facilities in SADCC states and countries adjacent. It aims to benefit the community through developing skills and solutions in the architectural field.

SADCC UA held its first General Assembly in Windhoek and Swakopmund in 1992, well hosted by the Namibian Institute of Architects. The defined fields for consideration and action are architectural education (Chris Lebona of LAESA is Council member in charge) and professional practice (Dukie Richardson of BIDP ATPI is Council member in charge). In addition, a newsletter is in course of preparation in Namibia, and SADCC recognition is to be persued by the Botswana members. Correspondence, where appropriate, will be copied both to Council members and to their institutes, to improve communications, and address lists (with phone and fax numbers) are being circulated by the Secretary. Subscriptions were reviewed at the 1992 General Assembly, and have now been reduced to levels considered affordable by all those attending.

SADCC UA has also participated in setting up the Swedeplan Ralph Erskine workshop in Gaborone in July, 1992, and in assisting with Erskine visits to other institutes during his visit.

The next Council meetings are envisaged to be in Harare in November, 1992 and Maseru in February, 1993.

David Young
President, SADCC UA

SADCC UNION OF ARCHITECTS

GENERAL ASSEMBLY NAMIBIA APRIL 1992

FIRST SESSION, WINDHOEK 14th APRIL 1992

PRESENT:

MEMBER ORGANIZATIONS

BOTSWANA - M. DATA

LESOTHO - C LEBONA

ZIMBABWE - E GURNEY

COUNCIL

PRESIDENT - C LEBONA

VICE PRESIDENT - D YOUNG

SECRETARY - E. GURNEY

1. PRESIDENTS REPORT
2. PROPOSED BY-LAWS INCL. FINANCIAL AMENDMENT
3. TREASURERS REPORT
4. PROJECTS - ONGOING

PROPOSED

5. MEMBERSHIP

QUESTION OF ISAA MEMBERSHIP DISCUSSED

RESOLUTION POSTPONED TIL 2nd SESSION.

2nd SESSION SADCC · UNION OF ARCH · ASSEMBLY 16/4/92

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SADCC UNION OF ARCHITECTS
GENERAL ASSEMBLY NAMIBIA APRIL 92.
SECOND SESSION, SWAKOPMUND 16th April 1992

1. LIST OF PARTICIPANTS.

2. VOTING:
ELECTED UNOPPOSED
DAVID YOUNG - PRESIDENT
ENA BURNEY - VICE PRESIDENT.
NAMIBIA - SECRETARIAT
CHRIS JEBOVE - PAST PRESIDENT // EDUCATION
SECONDS & PERSON FOR POST OF SECRE-
TARY TO BE DISCUSSED AT NEXT COUNCIL
MEETING.

3. PROJECTS:
ASSEMBLY ACCEPTED EXISTING PROJECTS
1.

4 RESOLUTIONS:

1. THE ~~COUNCIL~~ SADCC/A RESOLVES THAT
COUNCIL SHOULD FACILITATE AND ENCOURAGE
CONTACT BETWEEN MEMBER ORGANISATIONS
AND THE ISAA IN MATTERS OF MUTUAL
INTEREST. THESE CONTACTS WOULD INCLUDE
INTER ALIA CONTACT WITH ARCHITECTURAL
EDUCATIONAL INSTITUTIONS. ISAA WOULD
BE ACCEPTED AS OBSERVERS AT SADCC/A MEETING

2. THE SADCCA RESOLVES THAT IN ORDER FOR ARCHITECTS TO PERFORM THE ROLE OF SERVING THE REAL AND URGENT NEEDS OF ALL THE PEOPLE IN SOUTHERN AFRICA, THE FIELD OF ARCHITECTURAL EDUCATION BE PROMOTED AS THE CENTRAL THEME FOR THE COMING TERM OF THE COUNCIL THE AREAS OF EDUCATION THAT ARE TO BE ADDRESSED ARE:

- AWARENESS OF THE BUILT ENVIRONMENT IN SCHOOLS (PRIMARY + SECONDARY)
- FACILITATING OF TRAINING OPPORTUNITIES FOR TECHNICIANS
- FACILITATING OF TRAINING OPPORTUNITIES FOR PROFESSIONALS
- CONTINUING PROFESSIONAL DEVELOPMENT.

5. A.O.B.

1. DETAILS OF CONFERENCES & VISITING EXPERTS TO BE MADE AVAILABLE TO ALL M.O.S. COSTS & BENEFITS TO BE SHARED
2. JOB DESCRIPTIONS FOR COUNCIL MEMBERS
3. PERSUANCE OF JOINT MEMBERSHIP OF U.I.A. (NAMIBIA STILL TO RATIFY)
4. FOCUS ATTENTION ON SPECIFIC ISSUES.

6. VOTE OF THANKS TONIA ON BEHALF OF OUTGOING

Draft Programme Ralph Erskine Seminar/Workshop 5–10/7 1992
==========

RECEIVED
16 -06- 1992
DAVID YOUNG ARCHITECT

Sun 5/7 at 1600:

Introduction/presentation of RE and his works in the UB Exhibition Hall for specially invited guests (eg SADCC Union Arch/Plann, private consulting Arch/Plann in Botswana, Council Arch/Plann, Govt Arch/Plann, BHC Consult's Dept, Univ students).

Welcome to Guests (Res Rep/SwP)

Opening Speech (President SADCC UA)

Cocktail

Presentation by Ralph Erskine

==========

Workshop/seminar on "Creativeness/Design and Development Control"

1 Mon 6/7

Layout: Early mornings – presentation of issues
Late mornings/afternoons – Studio Work, c 6 teams, each guided by experienced Arch/Planners, designing a local centre with mixed land–uses, within the context of the new Dev Control Code.

800 –1000	"Architecture and Urban Design for Better Living" – Ralph Erskine
1000–1030	Tea
1030–1230	"The New Development Control Code for Botswana" – Nils Viking
1230–1400	Lunch at UB
1400–1700	Studio Work – Presentation of task (Gab West Block 8 Local Centre) RE + assistants available to advise on getting started, major design components, mixed uses etc

2 Tue 7/7

800 –1000	"Architecture and Planning in Botswana" – AC Mosha
1000–1030	Tea
1030–1230	Studio Work – RE and assist available. RE to advise on upcoming design problems.
1230–1400	Lunch at UB
1400–1700	Studio Work Cont

3 Wed 8/7

8oo –10oo	"The Role of Design Professions in the Society" – Paul Kotze
10oo–103o	Tea
103o–123o	Studio Work – RE + assist available
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

4 Thu 9/7

8oo –10oo	Studio Work – RE + assist available
10oo–103o	Tea
103o–123o	Studio Work Cont
123o–14oo	Lunch at UB
14oo–17oo	Studio Work Cont

5 Fri 10/7

8oo –10oo	Final touches to Studio Projects
10oo–103o	Tea
103o–123o	Presentations of Studio Works
123o–14oo	Lunch at UB
14oo–163o	Presentation Cont
163o–17oo	Winding Up – RE/Assistants
19oo	Reception UB
	Closing Remarks (Dir/DTRP)

(AOKP)56

SADCC UNION OF ARCHITECTS GENERAL ASSEMBLY WINDHOEK, APRIL 1992

AGENDA

1. Registration and apologies

   Member organizations : Botswana
   Lesotho
   Zimbabwe
   Tanzania
   Zambia
   Namibia

   Observer members : Angola

   Observers : ( )

2. Previous minutes

3. President's report

4. Proposed bye laws - Vice President

5. Secretary/Treasurer's report

6. Membership

7. National organization's reports

8. Programme of budget

9. Election of council members

10. Any other business

SADCC Union of Architects

Minutes of the second conference, held in Gaborone, Botswana on 22nd & 23rd February, 1990.

Present:	P Patel	PO Box 30696 Lusaka, Zambia
	P Shah	PO Box 2144 Gaborone, Botswana
	W Davies	PO Box 345 Gaborone, Botswana
	M Datta	PO Box 345 Gaborne, Botswana
	A F Da Silva	PO Box 582 Luanda, Angola
	G D Da Silva	PO Box 2772 Luanda, Angola
	C K Lebona	PO Box 1560 Maseru, Lesotho
	E Gurney	19 Victoria Drive Newlands, Harare, Zimbabwe
	V Mwamuka	5 Baker Avenue Harare, Zimbabwe
	A T H Mwakyusa	PO Box 567 Dar-es-Salaam, Tanzania
	H S Vidyarthy	PO Box 6696 Dar-es-Salaam, Tanzania
	D A Young	P/Bag 00120 Gaborone, Botswana
	V Mabulu	PO Box 706 Maseru, Lesotho
	G Price	PO Box 3029 Harare, Zimbabwe

SADCC UA Conference FE90

Proceedings of Thursday, 22/2/1990:

Welcome by Chairman, BIDP

Fellow architects, ladies and gentlemen, on behalf of the Botswana Institute of Development Professions, welcome to Gaborone. Your efforts to attend this conference to finalise and ratify the proposed constitution and elect the first office bearers of the proposed SADCC Union of Architects are essential in overcoming the inertia of physical distance and difficult communications, and are appreciated. On behalf of all, I thank the IAZ for their work in acting as Secretariat to the Union-in-formation, and their undertaking to chair these proceedings until the election of office bearers.

As Chairman of BIDP, I should like to give a brief review of our body. The modern professions have only established themselves within Botswana since around 1964, when Gaborone was established as the capital. As far as I am aware, none of the original practices have continued in practice, and the older of the present practices date back around 15 years.

In 1979, at the request of Ministry of Works Buildings Branch, BIDP was set up as a body of individual members reprenting a range of related professions. The aims of BIDP are briefly the promotion of knowledge, the maintenance of professional standards and promotion of good practice, and education in the various professions. Small numbers have constrained our achievements, which have concentrated on such basics as general stationery, forms of contract, conditions of engagement and an annual directory, with occasional newsletters, talks and site visits. Other areas have seen a lack of success, like the matter of registration of professional title (at present, of our constituents, only land surveyors are a legally defined profession). Resources have not permitted funding of education abroad, but in 1990, we hope to start our first bursary at the new BSc Civil Engineering course at the Botswana Polytechnic. Our two present chapters are engineering & surveying (engineers, quantity surveyors, land surveyors, estate surveyors) one the one hand and architecture and town planning on the other.

The aims of the new union are exactly the same, though spelt out in some greater detail, as those of BIDP, and I would hope that all architects working in Botswana can subscribe to and support these in a greater measure than at present, and that they lend their efforts to the success of the SADCC Union.

As requested by the IAZ, acting as the Secretariat for this Union being constituted, BIDP has set up the arrangements for this conference, almost entirely through the efforts of the Architects Chapter, whose efforts I commend. Arrangements have been set up as shown in the agenda, and invitations are given to all delegates to the evening events today and tomorrow. Any Chapter members present will be happy to assist with advice. If there is interest amongst delegates, we can make arrangements for an outing on Saturday to see some local points of interest. Those who would be interested are asked to advise Mr Datta, chairman of ATPC.

Mr Makoni, Secretary of the SADCC Secretariat, has given apologies for redirecting Mr Bawa, who was to give the opening address, abroad in connection with the tenth anniversary of SADCC. In his absence, I declare this conference open and hand over to Graham Price who will be chairing the proceedings.

SADCC UA Conference FE90

David Young: Chairman of BIDP Council

Handover to Chairman Graham Price of IAZ

Opening address by Chairman:
Text is given in appendix A

At this point, a letter received from Mr B Mosetlhe was read and discussed; the conclusion of the conference was that it is a matter for architects in Botswana to resolve.

The Constitution draft was then discussed until 12:45, when the conference adjourned for lunch.

After lunch, the submission of the Angolan Architects' Association (in formation) representatives was handed out to all present.

The Constitution draft was then discussed until 17:15, and the revised draft was printed out.

Proceedings of Friday, 23/2/1990

A message from the African Union of Architects to the Members of the SADCC Union of Architects was handed out to all participants.

The Constitution draft was discussed from 9:15.

At 12:13, the chairman proposed a motion that the amended Constitution be adopted; this was seconded by ZIA representative P Patel. The motion was adopted unanimously. Text was then edited to follow the final discussions.

Election of officers then took place:
One vote each for the six architectural bodies represented:

Candidates:

President	D Young Proposed G Price/ seconded V Mwamuka	2 votes
	C Lebona Proposed V Mabulu/seconded A da Silva	4 votes: Elected
Vice-President		
	D Young Proposed G Price/seconded A da Silva	Unopposed
Secretary/treasurer		
	E Gurney Proposed V Mwamuka/seconded M Datta	2 votes & casting vote of chair: Elected
	A Mwakyusa Proposed H Vidyarthy/seconded V Mabulu	2 votes

SADCC UA Conference FE90

Ordinary member (education)
A da Silva Proposed E Gurney/seconded D Young — Unopposed

Ordinary member (practice)
A Mwakyusa Proposed V Mwamuka/seconded M Datta — Unopposed

Delegates of member institutes to the General Assembly were:

Angola A da Silva
Botswana M Datta
Lesotho V Mabulu
Tanzania V Mwakyusa
Zambia P Patel
Zimbabwe E Gurney

The Chairman then proposed to close the meeting, noting that the further agenda items were for Council attention. The final edition of the constitution was printed out for signing by delegates after lunch.

At 3:05 the conference chair was handed over to the incoming president, Mr C Lebona. It was proposed that an initial Council meeting be held on Saturday 24th February, 1990. UIA bloc membership needed to be considered. The conference was thus adjourning until the dinner function. Thanks were expressed by the President to the conference chairman, the secretarial agency, the BIDP hosts, the Gaborone Sun & especially the participants.

Appendices: A Chairman's speech
B Handbook on SADCC
C Participant list for elections

David Young
Acting secretary

SADCC UA 10/4/92

Proposed Byelaws

1
Finance

1.1
The Secretary/treasurer shall invoice members by 31st January each year on the basis of current membership lists provided by members by 31st December of the preceding year. Subscriptions are due for payment by 31st March each year.

1.2
The SADCC UA central bank account shall be maintained in Gaborone, Botswana.

1.3
Signatories for cheques and orders shall be any two of the following: the President, the Secretary/treasurer or the President of the national organization at the seat of the secretariat. Vice President.

1.4
Subscription rates shall be USD50/Member organization or Observer member/year plus USD5/full member of a Member organization; Observer members are exempt from the per-capita charge. 25

1.5
Assets shall not be disposed of without a resolution of Council to that effect.

1.6
Expenditure or commitment to expenditure in excess of USD250 shall not be made without a resolution of Council to that effect.

2
Observer members

2.1
If a new national body of architects applies to be a Member organization and that country is presently represented by an Observer member, then on acceptance by Council of that new body's application the Observer member's membership is terminated.

3
Referenda

3.1
Upon a decision being taken that a referendum is to be held, the Secretary/treasurer is to inform all Council members and Member organizations of the referendum issue, with related background information, by registered airmail post.

3.2
Council is to formulate the resolution proposed.

3.3
Member organizations are to return their votes to the Secretary/treasurer by registered airmail post. The votes must be in the marked envelopes supplied by the Secretary/treasurer, and are to be opened in the presence of the Secretary/treasurer and the President of the national Member organization at the seat of the secretariat.

3.4
Council members are to be informed of the result first, and then Member organizations are to be advised.

APPENDIX 1

Application form format

APPLICATION FOR MEMBERSHIP OF THE SADCC UNION OF ARCHITECTS

Name of organization: .....
.....

Year founded: .....

Postal address: .....
.....
.....
.....

Current office bearers with designations:

.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Status applied for: ... Member organization ... Observer member

Number of members: ... Resident ... Non-resident

Please submit copies of your constitution and regulations with this form.

APPENDIX 2

Nomination form:

NOMINATION FOR ELECTION TO COUNCIL OF THE SADCC UNION OF ARCHITECTS

Name of nominating member organization:

.....

Name of seconding member organization:

.....

Post for which nomination applies (required only for Presidential/Vice presidential nominations):

.....

st held on Council of SADCC UA (required only for Presidential/Vice presidential nominations):

.....

Post held by nominee in own national organization:

.....

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Year founded: .....

Postal address: .....
.....
.....
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Current office bearers with designations:

.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Status applied for: ... Member organization ... Observer member

Number of members: ... Resident ... Non-resident

Please submit copies of your constitution and regulations with this form.

APPENDIX 2

Nomination form:

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.....

Name of seconding member organization:

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Post for which nomination applies (required only for Presidential/Vice presidential nominations):

.....

Post held on Council of SADCC UA (required only for Presidential/Vice presidential nominations):

.....

Post held by nominee in own national organization:

.....

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ARCHITECTS CONFERENCE NAMIBIA

14 TO 16 APRIL 1992

The Organising Committee of the Architects Conference has decided to adjust the conference programme, in an effort to allow more of the NIA members to participate in the event.

The NIA conference has been condensed into a full, one day event, taking place in Windhoek, instead of the previously anticipated three, half day sessions which were to take place in Windhoek & Swakopmund. This rationalisation has been brought about by the fact that responses from our members to the previous programme, indicated that virtually no Windhoek based architects were going to attend the sessions in Swakopmund.

Due to the reduced duration of the conference, costs have also been marginally reduced. NIA members are therefore urged to reconsider their participation, according to the revised programme which is attached hereto.

Although the conference topic - "The Design Professions and the City", suggests a very wide range of issues, the organising committee and the main speakers are convinced that the sub topics and the discussions will be highly relevant to the practice of architecture in Southern Africa at the present time. A further aspect of importance will be the contemplation of the relationship between architects from the various Southern African countries, and in particular South Africa. These discussions will undoubtedly provide valuable ideas which can be formalised as resolutions by the SADCC Union of Architects General Assembly. In this way, individual Institutes will be in a better position to make recommendations to their respective governments regarding planning and development issues.

The profession of architecture in Southern Africa has a great responsibility to contemplate its role within the emerging Southern African region and to pursue its goals in a pro-active manner. It is hoped that the seminar and any resultant resolutions adopted by the General Assembly, will contribute to an ongoing debate between Institutes in our region, on matters of mutual relevance.

***************** *****************

Final Programme for SADCC Union of Architects General Assembly and NIA Seminar on "The Design Professions and the City".

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1. <u>TUESDAY 14 APRIL 1992 :</u>

Delegates and participants from outside Namibia will be met at Windhoek International Airport as they arrive, and will be accompanied to their hotels.

1.1 GENERAL ASSEMBLY : OPENING SESSION :

* Attended by :
- Official delegates from each SADCC Institute.
- Members from SADCC Institutes as observers. NIA members wishing to attend this session as observers should please indicate their attendance on the registration form.

* Agenda :
- Introduction of delegates and observers.
- Report by outgoing Council of the SADCC Union of Architects.
- Reports from member Institutes.
- Notice of Resolutions to be discussed at the closing session.

* Venue : - Departure fro and return to, the Alte Fasta, Leutwein Street.
* Cost : - R 25.00 per pe son.

1.3 NAMIBIA INSTITUTE OF ARCHITECTS RECEPTION :

* Celebration of the 40th annive sary of the NIA's existence.
* Attended by : - Conference par icipants and their partners.
- Invited guests.
* Venue : - Tintenpalast Gardens, Leutwein Street.
* Time : - 19h30 for 20h00.
* Dress : - Formal (Black tie / National dress)
* Cost : - R 60.00 per pe son.

2. <u>WEDNESDAY 15 APRIL 1992 :</u>

2.1 CONFERENCE :

* A one day seminar on "The Desi Professions and the City" hosted by the NIA.
* Attended by : - All Conferen participants and members of related professions.
* Venue : - NHE Auditorium (Asboukor), Omuramba Road, Eros.
* Cost : - R 165.00 per son, which includes for all conference material, lunc and teas.
* Times : - 09h00 to 08h30 Registration in auditorium foyer.
- 08h30 to 10h00 - Addresses by keynote speakers - Prof. David Dewar and Professor Roelof Uytenbogaardt.
- 10h00 to 10h20 - Tea.
- 10h20 to 12h30 Sub topic 1 and discussion.
- 12h30 to 13h30 - Lunch at NHE Social Club.
- 13h30 to 15h00 - Sub topic 2 and discussion.
- 15h00 to 15h20 - Tea.
- 15h20 to 16h50 - Sub topic 3 and discussion.
- 16h50 to 17h15 - Conclusions.

2.2 NIA EXHIBITION OF 1991 AWARDS OF MERIT :

* Opening address to be delivered by The Honourable Niko Bessinger.
* Attended by : - All conference participants, their partners and the public.
* Venue : - Alte Festa, Leutwein Street.
* Time : - 19h30 for 19h45
* Cost : - R 25.00 per pe son, including wine and warm snacks.

3. **THURSDAY 16 APRIL 1992 :**

3.1 * SADCC General Assembly Closing Session to be held in Swakopmund. Participants will be transported from Windhoek to Swakopmund via Katutura and Khomasdal, stopping over in Karibib en route.

* Attended by : - Official delegates.
- Observers. NIA members wishing to attend this session as observers should please indicate their attendance on the registration form. Please also indicate whether you will require transport between Windhoek and Swakopmund.

* Agenda : - Notice of resolutions to be discussed.
- Reports from member institutes.
- Discussion of resolutions.
- Election of new Council.

* Venue : - Strand Hotel, Swakopmund.

* Times : - 08h00 - Depart from Windhoek (departure arrangements to be confirmed).
- 09h45 to 10h30 - Stopover in Karibib for tea.
- 12h00 - Arrive in Swakopmund. Direct to hotels / accommodation.
- 13h00 to 14h30 - Buffet lunch at the Strand Hotel with the Mayor of Swakopmund.
- 14h30 to 16h00 - General Assembly.

* Costs : - Transport to & from Swakopmund :
NIA members : R 35.00 per person.
Official Delegates : no charge.
- General Assembly & lunch - no charge.

3.2 EVENING SOCIAL FUNCTION :

Details to be finalised.

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SADCC UNION OF ARCHITECTS
(Southern African Development Co-ordination Conference)

CONSTITUTION

ARTICLES OF ASSOCIATION

Title

ARTICLE 1

The Charity hereby constituted shall be called the 'SADCC Union of Architects', hereinafter called 'the Union'.

Objects

ARTICLE 2

1 To support the aims and objectives of the Lusaka Declaration and Memorandum of Understanding now embodied by SADCC and endeavour to materialise them in the field of architecture.

2 To represent the Architects of the region viz-a-viz SADCC Institutions and cooperate with the secretariat and other institutions and bodies whenever issues are involved that are related to the pursuit of the above mentioned aims and purposes. More specifically, speak out to defend our heritage, land management, physical planning, edification, the practice of the profession and the standardisation and parity of courses of study.

3 To advance architecture throughout the SADCC member states, and the promotion and acquisition of knowledge of the various associated arts and sciences.

4 To promote intellectual, artistic, scientific and professional co-operation between national associations of architects in the SADCC member states.

5 To promote the profession on a regional basis and represent it at an international level.

6 To maintain public confidence in the integrity and ability of architects by demanding from members the highest moral and professional standards.

7 To encourage regional co-operation between architects and other disciplines, professions and interests involved in building and physical planning.

8 To promote greater public awareness of the man-made environment and the forces which shape it.

9 To encourage the preservation of architectural heritage by promoting research and conservation of historic buildings and environments within the region.

10 To promote the availability of architectural services throughout our societies.

11 To encourage architecture which is sensitive to national and regional cultural identities and aspirations, and to socio-economic conditions.

12 To support the establishment of conditions under which architects can carry out their various functions adequately, through the establishment of professional codes of conduct in each member country.

13 To encourage in each country the protection of the rights and status of the architect and the recognition of the architects' functions in society.

14 To promote the development of architectural education in member states and encourage co-operation between individual educational and research institutions.

15 To facilitate inter-recognition of architectural qualifications, and regional exchange of architects, researchers, tutors, and students.

16 To promote the exchange of information on the supply and availability of building materials and products manufactured within the region.

17 To promote the exchange of building and architectural research carried out by schools, national research establishments or by the building industries within the region.

18 To encourage architectural competitions to be at a national or regional level and to establish common accepted guidelines for running such competitions.

19 To publish learned papers, and professional directories and to disseminate news and technical and scientific information between Member Organizations, and to encourage and promote the publication of learned papers, directories, technical and scientific information by each Member Organization.

Powers

ARTICLE 3

In furtherance of the foregoing objects, but not further or otherwise, the Union shall have the following powers :

(i) To make awards of medals or certificates in recognition of significant contributions to architecture or its associated sciences.

(ii) To receive, administer and apply donations, bequests and endowments for prizes, exhibitions, studentships or scholarships or for any other general or special charitable object or purpose connected with the Union or, for any other charitable purpose connected with architecture.

(iii) To hold meetings and exhibitions within states and at other international gatherings of architects.

(iv) To take or hold any property which may be subject to any Trusts but shall only deal with or invest the same in such manner as allowed by law, having regard to such Trusts.

(v) To acquire, hold, lease or occupy, or dispose of property in furtherance of its charitable activities.

(vi) To invest monies not required for immediate working purposes in or upon such investments or other assets as the Council shall think fit.

(vii) To borrow money for the advancement of its objects on such security as the Council may think fit but subject nevertheless to such conditions and consents as required by law.

(viii) To do all such things as shall further the abovementioned objects or any of them.

Membership

ARTICLE 4

1 The members of the Union are the Institutes, Associations and Societies listed as Member Organizations in

the Schedule to this Constitution together with such other Institutes, Associations and Societies as may from time to time apply for, and be admitted to membership. Membership shall be open to the National Institute, Association or Society which in the opinion of Council represents the body of architects in a SADCC country provided that such Institute, Association or Society subscribes to the purpose and objects of the Union and is constituted in a manner consistent with the policies thereof. Only one organization from each Member Country shall be represented in the Union.

2 Observer Members are the groups and organisations listed as Observer Members in the Schedule to this Constitution together with such other groups and organisations as may from time to time apply for, and be admitted to Observer Membership. Observer Membership may be granted, at the discretion of Council, to any group or organisation of architects in a SADCC country where no Member Organisation exists provided that such group or organisation subscribes to the objects of the Union and is constituted in a manner consistent with the policies thereof. Observer Members shall have all the rights and responsibilities of full membership except they may not be represented by a delegate at a General Assembly of the Union, and shall not have the right to vote.

3 Membership and Observer Membership is open only to institutes, societies, associations, groups and organisations which do not discriminate against their own members or potential members on the basis of race, colour, sex, religion, national origin or political persuasion.

4 Application for membership shall be made to the Secretary as prescribed in the Bye-laws, and admission to membership shall be by a majority decision of all Council members.

5 A Member Organisation which in the opinion of the Council, ceases to represent the majority of architects in a SADCC country, and a Member Organisation or Observer Member which, in the opinion of Council, fails to uphold the object of the Union amends its Constitution in a manner inconsistent with the policies of the Union or whose subscriptions remain unpaid for more than one year without special dispensation shall be suspended from membership. Such suspension shall come into effect three months after notice has been given to the Member Organisation or Observer Member specifying the default; provided always that if such Member Organisation or Observer Member shall rectify the default to the satisfaction of Council the notice shall be withdrawn or the suspension revoked as the case may be.

6 A Member Organisation or Observer Member which has been suspended by Council may be expelled by resolution of the Union in General Assembly provided that such resolution is carried by a two-thirds majority of the votes cast. A Member Organisation or Observer Member which has been so expelled may apply for re-admission upon rectifying the default or defaults which were the cause of its original suspension.

7 Membership of a Member Organisation or Observer Member shall terminate three months from the date that such Member Organisation or Observer Member gives notice of its intention to resign, or in the case of a Member Organisation, three months from the date that a country in which such Member Organisation is located ceases to be within the SADCC group of states.

General Assembly

ARTICLE 5

1 The governing body of the Union shall be a General Assembly of delegates representing Member Organisations together with members of Council which shall be responsible for the general policy of the Union.

2 The General Assembly shall meet at least once in every two years in a SADCC country in which a Member Organisation is located; the venue and date shall be determined by Council and the General Assembly shall be convened by giving six months notice thereof to all Member Organisations.

3 Each Member Organisation, with the exception of any which have their membership suspended, is entitled to appoint one delegate to attend and vote at a General Assembly; and to appoint one or more observers to attend but not vote; a Member Organisation whose membership is suspended shall be entitled to appoint one or more observers to attend but not vote. Each Observer Member is entitled to appoint one or more observers to attend but not vote.

4 Voting shall be by a simple majority of those present and entitled to vote and shall be by show of hands unless the General Assembly shall otherwise decide. In the event of a tie the Chairman shall have a casting vote.

5 The business of a General Assembly shall include: receiving a report from Council of the affairs and finances of the Union since the last General Assembly, approving a programme and budget for the next session, electing a President, an Honorary Secretary/Treasurer, and other Council Members, and any other business of which one month's notice has been given to the Secretary.

6 The quorum at a General Assembly shall be 50% of the number of persons having the right to attend and vote.

Council

ARTICLE 6

1 The management of the affairs of the Union shall be vested in a Council comprising the President, the immediate Past President as prescribed, Vice-President, and Honorary Secretary/Treasurer. These four positions shall be held by representatives of four different member countries. The Council shall also consist of two Members of Council specifically elected by the General Assembly responsible for Architectural Education and Architectural Practice. The Council is empowered to appoint from time to time as may be necessary non voting Members who would be in charge of specific projects of the Union.

2 The President and Vice President shall be elected by the General Assembly from candidates whose nominations have been received by the Secretary not less than four months previously in the form prescribed in the Bye-laws. A candidate shall be a President, Past President or equivalent person who has been nominated by his National Member Organisation and seconded by another Member Organisation, and who shall have served a full term as an officer of a Member Organisation and for a minimum of two years as a Member of the Council of the Union. The President shall normally hold office from the time of his election until the next General Assembly, but in the event of his death, resignation or inability to act, the Vice President shall assume presidency for the remainder of the term. The President may offer himself for one more term only.

3 The Honorary Secretary/Treasurer shall be elected by the General Assembly. This candidate must previously have been an office bearer in his/her own Member Organization and be nominated by his/her own Member Organization.

4 The Candidates to become Council Members for Education and Architectural Practice shall be elected by the General Assembly or Council Members.

5 Council shall meet at least once each year in a SADCC country in which a Member Organisation is located; the venue and date shall normally be decided at the previous Council meeting, but if it is not so decided, the venue and date shall be determined by the President in consultation with the Honorary Secretary/Treasurer.

6 The quorum at Council meetings shall be 50% of the persons entitled to attend and vote, and not less than three persons.

7 Council may resolve that a decision shall be referred to all Member Organisations between General Assemblies; in such circumstances a referendum shall be conducted in the manner prescribed in the Bye-laws.

8 Upon recommendation from Council; the General Assembly can elect additional members on to Council.

Officers

ARTICLE 7

1 The officers of the Union shall be the President and the Honorary Secretary/Treasurer.

2 The President shall take the chair at the General Assembly and at all meetings of Council when he is present.

3 In the absence of the President, the Vice President shall chair that meeting. In the absence of both the Council shall elect a chairman.

4 The Honorary Secretary/Treasurer shall oversee the finances of the Union and shall report thereon at each meeting of the Council and at the General Assembly.

5 The Honorary Secretary/Treasurer shall administer the affairs of the Union in conformity with this Constitution, the Bye-Laws made thereunder, general policies of the Union, and the directives of Council.

Secretariat

ARTICLE 8

1 A Secretariat shall be established and maintained at such location in a member country as decided by the General Assembly. The Secretariat shall comprise the administrative headquarters for the Union and a depository for its records.

2 All formal notices to Member Organisations and Observer Members shall be addressed to their secretaries, and shall be deemed to have been delivered thirty days after having been posted by airmail.

Finances

ARTICLE 9

1 The funds of the Union shall consist of subscriptions payable by Member Organisation and Observer Members, grants, contributions, bequests, and the proceeds from sales. Such funds shall be applied exclusively to the purpose of the Union as directed by Council and/or authorised by the Honorary Secretary/Treasurer.

2 The annual subscription payable by each Member Organisation and Observer Member shall be assessed as provided in the Bye-laws; the basis having been reviewed and adjusted by Council after each General Assembly to provide the necessary funding for the approved programmes. Subscriptions shall be due for payment each year by the 1 January and shall be paid not later than 31 March. In exceptional circumstances Council is empowered to grant special dispensation to allow subscriptions to be paid at a later date or by instalments.

3 The Bankers to the Union shall be proposed by the Council and ratified by the General Assembly and an account or accounts shall be operated at such branch or branches as Council may decide. The signatories to such accounts shall be the Honorary Secretary/Treasurer, and such other persons as Council may decide.

4 Council shall approve annually the appointment of auditors.

5 The Honorary Secretary/Treasurer shall cause books of accounts to be kept and shall arrange for annual accounts of income and expenditure to be prepared and audited and presented to Council for approval. The financial year shall be from 1 January to 31 December.

6 The individual Council Member and his/her Member Organization will be responsible for payment of travel and accommodation expenses.

Boards and Committees

ARTICLE 10

Council is empowered to establish and disband boards and committees and to appoint or dismiss the members thereof,

as it may deem necessary for the work of the Union and the management of its affairs; any such board or committee shall be constituted as prescribed in the Bye-laws, and given such terms of reference as Council may decide, provided that no board or committee shall be entrusted with any property belonging to the Union. All acts and proceedings of such boards and committees shall be reported in due course to the Council.

Bye-laws

ARTICLE 11

1 Council is empowered to make, amend and repeal Bye-laws not inconsistent with the charitable objects of the Union, as may be deemed necessary to regulate: admission to and suspension from membership; the nomination of President and Honorary Secretary/Treasurer; the conduct of referenda; the duties of officers; the assessment and collection of subscriptions; the procedure for constituting and managing boards, committees and sub-committees; and other similar matters.

2 A resolution to create, amend, or expunge a Bye-law shall require a vote in which the resolution is carried by a simple majority of all voting Members of Council for the time being, and shall take effect three months from the date that all Member Organisations have been given notice thereof provided that not more than one-third of the Member Organisations shall have notified the Honorary Secretary/Treasurer of objections thereto.

Amendment of Constitution

ARTICLE 12

1 This Constitution with the exception of Article 2, Article 3, Article 12 and Article 13 thereof may be

amended by way of omission or addition at a General Assembly provided that notice of motion shall have been given to the Honorary Secretary/Treasurer not less than four months prior to the date of the General Assembly and the resolution to amend shall have been carried by a majority of not less than two-thirds of the votes cast.

2 Upon receiving a notice of motion to amend the Constitution, the Honorary Secretary/Treasurer shall forthwith notify all Member Organisations and members of Council; The President shall prepare a report on such proposed amendments for presentation to the General Assembly.

3 Any amendment to the Constitution shall take effect immediately following the meeting at which such amendment is adopted.

Dissolution

ARTICLE 13

1 The dissolution of the Union shall be by a simple majority vote in a referendum following a resolution at a General Assembly at which the dissolution is properly upon the agenda, or following a General Assembly for which such proper notice was given but which failed to produce a quorum.

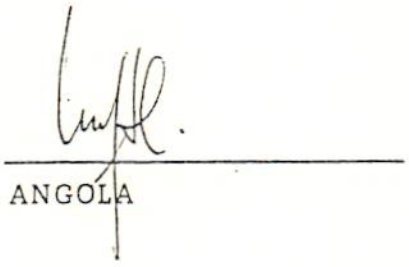
2 In the event of the dissolution of the Union the Council last in office shall be responsible for disposing of all funds and assets to another charity having similar objects and for the winding up of all outstanding affairs and in default of another charity having similar objects then to some exclusively charitable purpose as approved by the last General Assembly.

SCHEDULE TO THE CONSTITUTION

Founder Member Organisations	BOTSWANA	:	Botswana Institute of Development Professions, Gaborone
	LESOTHO	:	Lesotho Architects, Engineers and Surveyors Association, Maseru
	TANZANIA	:	Architectural Association of Tanzania, Dar-Es-Salaam
	ZAMBIA	:	Zambia Institute of Architects, Lusaka
	ZIMBABWE	:	Institute of Architects of Zimbabwe, Harare
Founder Observers	ANGOLA	:	Departmento Arquitectura Faculdade de Engenharid, Luanda
	SOUTH AFRICA	:	Construction Planning Unit of African National Congress, based in Tanzania
	ZAMBIA	:	School of Environmental Studies at Copperbelt University, Kitwe, Zambia

IN WITNESS whereof the Delegates to the SADCC Union of Architects Conference aforementioned have duly executed these presents on this Twenty Third day of February One Thousand Nine Hundred and Ninety.

DONE at GABORONE, REPUBLIC OF BOTSWANA, in one original copy in the English language.



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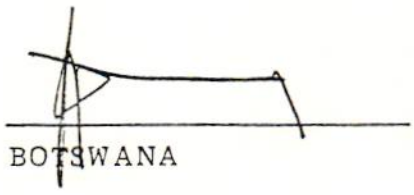
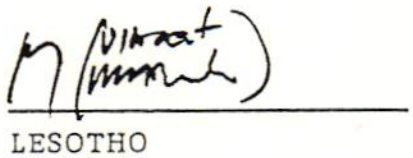


BOTSWANA



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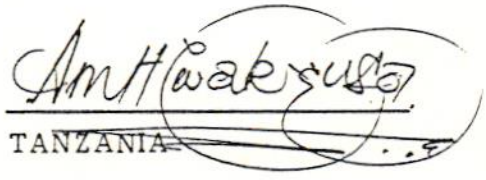

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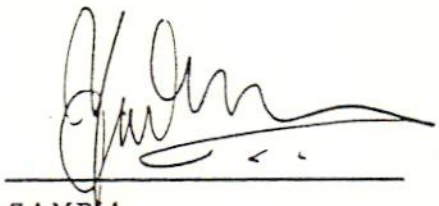
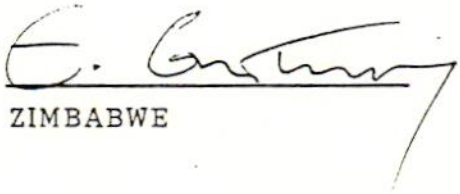


ZAMBIA



ZIMBABWE

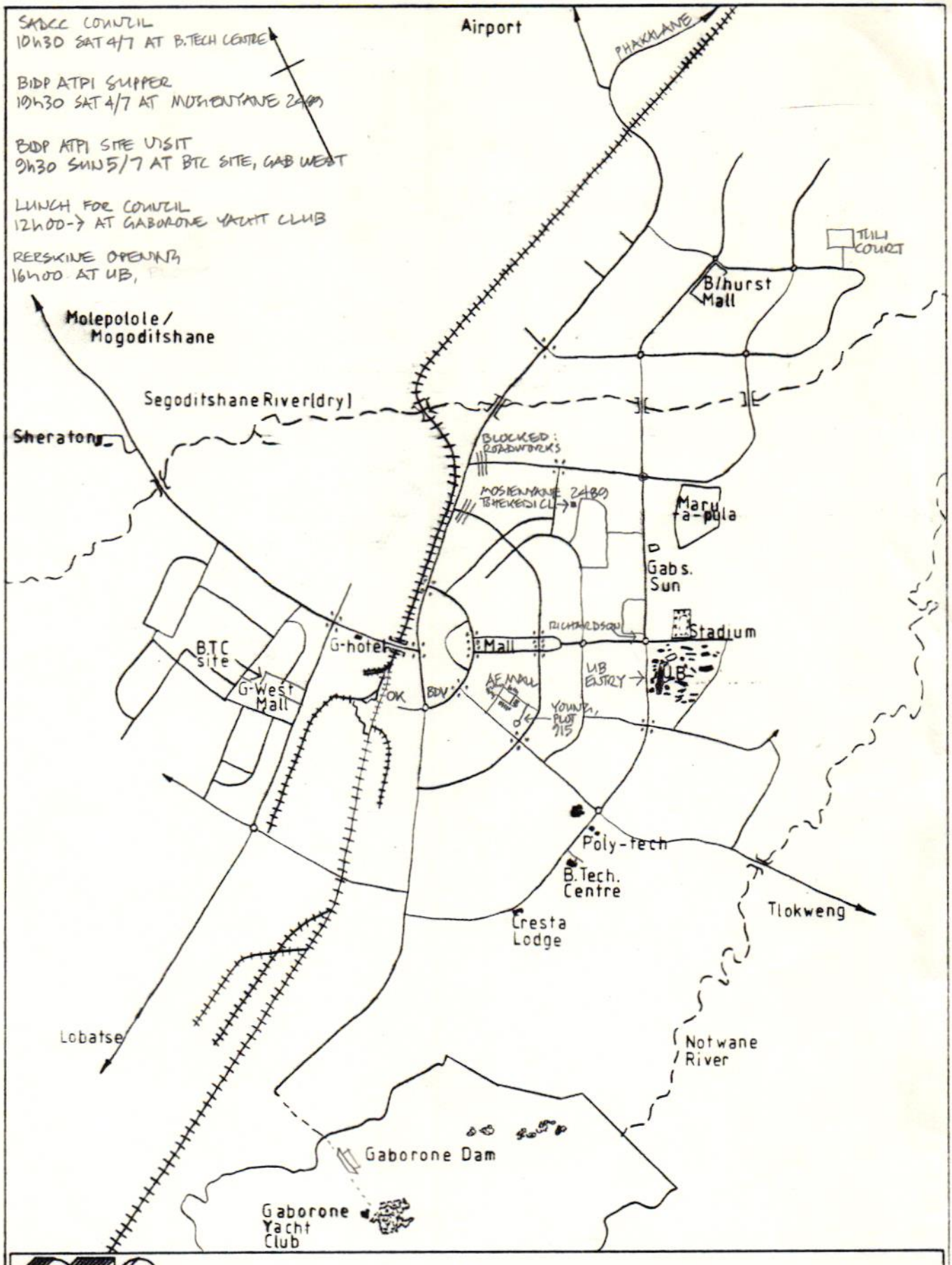
WITNESS

PRESIDENT
23 Feb. 1990

SADCC UNION OF ARCHITECTS

ATTENDANCE REGISTER

NAME	ADDRESS	SIGNATURE
G PRICE	P O Box 3029 Harare, Zimbabwe	
P PATEL	P O Box 30696 Lusaka, Zambia	
P SHAH	P O Box 2144 Gaborone, Botswana	
W DAVIES	P O Box 345 Gaborone, Botswana	
M DATTA	P O Box 345 Gaborone, Botswana	
A F DA SILVA	P O Box 582 Luanda, Angola	
G D DA SILVA	P O Box 2772 Luanda, Angola	
F MAJEKODUNMI	P O Box 7860 Lagos, Nigeria	
C K LEBONA	P O Box 1560 Maseru, Lesotho	
E GURNEY	19 Victoria Drive Newlands, Harare, Zimbabwe	
V MWAMUKA	5 Baker Avenue Harare, Zimbabwe	
A T H MWAKYUSA	P O Box 567 Dar-es-Salaam, Tanzania	
H S VIDYARTHY	P O Box 6696 Dar-es-Salaam, Tanzania	
D A YOUNG	Private Bag 00120 Gaborone, Botswana	
V MABULU	P O Box 706, Maseru, Lesotho	



David Young, Architect
Private Bag 00120, Gaborone
Phone 371181

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Preliminary program

Sunday, 19 June 1994

Arrival of the foreign participants at Hotel Brabant, Breda.

Monday, 20 June 1994

Opening of the seminar by Mr. E.H.T.M. Nijpels, Mayor of Breda.
First keynote-speaker: sustainable design;
Second keynote-speaker: real estate finance and exploitation;
Third keynote-speaker: cultural-historic aspects;
Cases and plenary discussion; *Evening:* contributions by foreign participants if not included in the program of the day.

Tuesday, 21 June 1994

Fourth keynote speaker: physical planning;
Fifth keynote speaker: re-allocation and education;
Cases and plenary discussion;
Forumdiscussion based on draft recommendations;
Closing of the seminar; Reception party at the city hall of Breda.

Wednesday, 22 June 1994

Excursionday: visit to various re-allocated buildings in Amsterdam and other cities; reception party at the Royal Institute of Dutch Arcitects BNA in Amsterdam. Dinner and boattrip through the Amsterdam canals.

Thursday, 23 June 1994

UIA Work group meeting, seminar reviewing and drawing up of recommendations for the work group. Farewell dinner.

Registration & information

Participants are requested to register at the following adress:

Borgersstede bv
Mr. C.C. van der Zwet
Borgersstede 9
5131 NX Alphen (N-Br)
The Netherlands
Phone/fax: 31 (0)4258-2917

00 31 4258 2917

Vormgeving: Stefan Hengst

ANNOUNCEMENT

INTERNATIONAL SEMINAR

UIA SEMINAR BREDA 1994
20-21 JUNE

Re-allocation of buildings,

a sustainable future for educational and cultural spaces?

RECEIVED
2 -02- 1994
DAVID YOUNG ARCHITECT

Organizing comittee:
Work Group Educational
and CulturaL Spaces of the Union
Internationale des Architectes

Breda, 20-21 June 1994

IJpelaar,
College of Fine Arts and Design St. Joost
Institute for Higher Vocational
Education West-Brabant