



NEW SCHOOL OF DESIGN

1. Preamble

There has been a growing awareness, amongst professionals in a variety of disciplines, that an unhealthy gap has developed between the expectations of well-being for society-at-large and the norms and values of professional practice and behaviour.

It is clear that in rapidly developing/evolving societies, especially those with a strong traditional base of knowledge and skills, the need for rapid change often conflicts with the rooted value-frame.

In an attempt to seek meaningful resolutions for such conflicts, through processes of learning and doing, a group of individuals established a tentative institutional framework in the mid-1970's. This corpus was named GREHA, a term which refers to a set of meanings ranging from 'house' to 'planet'.

GREHA has now been registered, under the Societies Registration Act XXI of 1860, with the immediate purpose of establishing a School of Design.

The long-term objectives of GREHA are to research and re-establish a professional framework wherein expert knowledge, relevant to our conditions and traditions, is gathered, held in trust, and used for the well-being of the entire human community.

The School of Design would provide a point of focus for initiating the activities of GREHA. It would be a visible and public forum for reflecting and projecting the larger value-frame of expert knowledge being placed in the service of the community as a whole.

It is proposed that the School be established initially at New Delhi, with associated centres being set up in other locations over a period of time.

2. Context

Design is an over-arching discipline that informs the process of change and order in society.

Within the broad scope of Design, Architecture is a coordinating discipline which, traditionally and at its best, has been the point of confluence for the arts and the sciences. Architecture seeks to translate into built reality the values and ideals of human civilisation.

The initiative for founding GREHA has been taken by a group comprising of architects, planners, social scientists, building scientists, and communications designers.

The first course of study envisaged is an Architecture programme.

There is, in India, a very serious demand for appropriately trained architects who can cope with the challenges and new requirements of the development process. The demand has quantitative as well as qualitative dimensions.

In the recent past there was a definite tendency for architects to seek professional work outside India because of the lack of work opportunities here. Today the situation is reversed and there is more work than qualified architects available to cope with the demand.

The number of registered architects in the country (as per the records of the Council of Architecture) is at present only 9931. There are 31 recognised schools of Architecture in the country, each qualifying an average of 30 architects annually for the profession. If we balance these numbers against the figures for investment envisaged in the 7th Five Year Plan, we find that in the next 5 years there will be an average of Rs.1.25 crores worth of work annually for each architect in the country.

This is an unprecedented challenge.

And this is only the quantifiable dimension of the problem. The task of developing and improving the quality of design and construction, especially in the context of a rich and varied heritage of traditional buildings and settlements, is even more important and urgent.

It is therefore, appropriate to envisage the expansion of training facilities in quantitative as well as qualitative terms for architects/environment designers.

This is the context for the proposal to establish a New School of Design.

Since the conditions obtaining in our country are often similar to those in many parts of the world, it can be anticipated that the School would attract students from other countries as well. The products of this school would be able to play a useful and significant professional role in India and other countries.

3. Rationale

In order to satisfy the wide range of employment potential, and to meet the complex requirements of the development of the profession as a whole, the tasks for which the students are to be equipped would need to be diverse.

The knowledge base which must essentially be developed in the student would start with a grounding in philosophy, with particular reference to aesthetics and ethics within an environmental perspective. The philosophic base would be consistent with tradition, in terms of beliefs and techniques, and social and economic needs, especially of the poor in rural and urban areas.

The skills to be developed would focus on the language of architecture, starting with basic communication skills, leading to the development of imagination and creativity.

Skill formation would be supplemented by exploration and development of the craft of building, through workshop exercises as well as on-site interaction with the building industry.

The formation of appropriate attitudes and traits would be fostered by developing the students' capacity for self-awareness and responsive behaviour. The intention being to reinforce the basic human skills of expression and communication, with an understanding of place and role in the profession and in society.

4. Course Objectives.

The course of architectural study will provide a basic grounding in fundamental and timeless principles of architecture, which emerge out of a philosophic, cultural, and scientific value frame, and will focus on 3 major areas :-

- 1) the development of awareness of techno-cultural factors which determine the limits of the architectural problem;
- 2) the comprehension and anticipation of the institutional forces which define the ground on which executive decisions can be framed; and
- 3) the consolidation of aesthetic, scientific and technical expertise required for the design and management of building projects.

Within these broad parameters the details of courses of study will be organised to provide:-

- a) a 5 year full-time course, leading to a Bachelors degree in Architecture, or an equivalent Diploma.
- b) short duration/part-time refresher courses for professional re-training in various specialisations.
- c) 1-2 year full time post-graduate courses in specialised areas.

5. Duration and Stages of the Courses

The architecture full-time course shall be of minimum duration of 5 academic years or 10 semesters of approximately 16 working weeks each, inclusive of six months/one semester of approximately 16 working weeks of practical training (after the first stage) in a professional office. The course shall be conducted in two stages-- the first 3 academic years /6 semesters of approximately 16 working weeks each of the course shall be a basic standard course and will constitute the first stage. Candidates admitted to the course shall have to complete the first stage within 5 years of admission to the course. The second stage of the course shall be of two academic years/4 semesters of approximately 16 working weeks each. The successful completion of both stages of the course shall qualify candidates for registration under the Architects Act, 1972.

The short-duration professional retraining course shall be of variable duration according to specific needs.

The post-graduate courses shall be of minimum duration of one and a half years /3 semesters of approximately 16 working weeks each.

6. Entering Behaviour

1. For the 5 year full-time course, candidates to be admitted shall have a minimum of 50% marks in aggregate, having passed the 10+2 examination of the Senior School Certificate Examination Scheme or equivalent, with Mathematics and English as subjects of examinations at the 10+2 level.

All candidates for the above course shall be selected on the basis of a specially designed competitive examination which will include an aptitude test and a viva-voce.

2. For the part-time technical courses, the candidates will be selected on the basis of in-depth examination of technical service record.

3. For the post-graduate courses, the candidates will be selected on the basis of their previous academic record/experience, and a viva-voce.

The intake of students at the first year level of the full-time course shall not exceed for each year a maximum of 30 in a class. For the certificate courses and the post-graduate courses the intake shall not exceed for each a maximum of 15 in a class.

7. Content of 5 Year Full Time Course

STAGE I -- BASIC COURSE

	Subjects of Examination	Min. No. of periods of 50 to 60 minutes
A. Design	1. Architectural/Environmental Design	Architectural Design 800 * 600
	2. Drawing/graphics & principles of communication	Arch. Dwg & Graphics 360 360
	3. Creative workshop	Workshop Practice 120 120
	4. Principles of Management & Estimating	Estimating & Costing 60 60
B. Building Science and Technology	1. Building construction	48% 1340 360 360
	2. Building materials and Science	✓ 60 60
	3. Structural Mechanics and theory	✓ 300 300
	4. Surveying & ecological analysis	Surveying & levelling 60 60
	5. Building Services and equipment	✓ 90 90
C. Human Settlements	1. Principles of human settlements	30 180 * 60
	2. Landscape Design	✓ 90 * 60
	3. Development theory	60 *
D. General Studies	1. History of Architecture/culture	✓ 220 * 120
	2. Humanities (beliefs/society & architecture)	✓ 120 * 60
		23 670 2880 2310

Poor (?)

STAGE II -- ADVANCED COURSE

	Subjects of Examination	Min. No. of periods of 50 to 60 minutes
A. Design	1. Architectural/ Environmental Design Planning and Thesis	650
B. Building Science and Technology	1. Building construction, Materials, Specifications	210
	2. Building Science and Services	60
	3. Structural Systems	50
C. Human Settlements	1. Human Settlements Theory	200
D. Professional Studies	1. Professional Practice	90
	2. Building Bye-laws	30
E. Electives	1. Housing	150
	2. Urban Design	
	3. Interior Design	
	4. Building Management	
	5. Landscape Design	
	6. Urban planning	
	7. Communications Theory and Practice.	
		1440

Note: The subjects of examination listed are as per the "Regulations on Undergraduate Architectural Education" of the Council of Architecture, India. The emphasis and specific orientation of each subject will be consistent with the overall objectives of the programme.

8. Teaching Methodology/Faculty

The teaching of architecture has always been an extension of the apprenticeship model. Thus the students shall receive the major part of their training in the design studio. In keeping with the general aim of coupling learning with doing, the studio training will be supplemented by involvement of the students in real-life projects on building sites, and housing / development projects in rural as well as urban areas. The intent is to expose the students to the complex decision making process which results in the formation of the built environment.

Faculty

The architecture school shall maintain a teacher/student ratio of 1:8; that is, it shall have a minimum number of 12 faculty members for a student strength of 100.

The school shall encourage the faculty members to involve themselves in professional practice, including research and development work/community work.

The school shall encourage exchange of faculty members with other institutions of similar nature, in order to improve and enrich its academic programmes. The school shall have the faculty pattern as prescribed by the Council of Architecture.

1. Designation - Lecturer - Pay Scale - Rs. 700-40-1100-50-1600 - Qualification - Bachelor's Degree in Architecture or equivalent plus two years or relevant professional experience.

OR

Master's Degree in Architecture or equivalent and one year's relevant professional experience. Provided further that if a candidate does not possess a Master's Degree in Architecture and professional experience, or a person possessing such experience is not found suitable, the person appointed will be required to obtain the desired professional experience within a period of five years on his appointment failing which he will not be able to earn future increment until he fulfills this requirement.

2. Designation - Reader/Asst. Professor - Pay Scale - Rs. 1200-50-1300-60-1900 - Qualification - B. Arch or equivalent with 7 years' experience in Teaching/Research/Professional work.

OR

M.Arch. or equivalent with 5 years' experience in Teaching/ Professional work.

3. Designation - Professor - Pay Scale - Rs. 1500-60-1800-100-200-125/2-2500 - Qualification - B.Arch. or equivalent with 10 years' of experience in Teaching/Research work; experience of guiding research.

OR

M.Arch. or equivalent with 8 years experience in Teaching/Research/Professional work.

4. Designation - Principal/Head of Department - Pay Scale - Rs.1500-60-1800-100-2000-125/2-2500, plus special pay - Qualification - B.Arch. or equivalent with 10 years experience in Teaching/Research/Professional work; experience of guiding research.

OR

M.Arch. or equivalent with 8 years of experience in Teaching/Research/Professional work.

5. The school shall appoint Professors of Eminence.

Note: Visiting faculty composed of active professionals will be closely involved in teaching and research.

9. Evaluation

The norms laid down by the Council of Architecture (Incorporated under the Architects Act, 1972) in its "Regulations of Under-graduate Architectural Education" shall be adopted.

1. An independent examining body approved by the Council or a University shall conduct the examinations at the end of each stage.

2. The sessional work shall be assessed by a jury of internal and external examiners.

3. The weightage of marks for subjects, having both class work marks as well as examination marks, may not exceed the ratio of 50:50.

4. The pass percentage shall not be less than 45% in each subject and shall not be less than 50% in the aggregate.

5. Only those candidates who have passed in the internal assessment, shall be permitted to appear in an examination.

6. An examiner for any of the subjects of examination shall have a minimum of 3 years teaching/professional experience in his/her field of study.

NOTE: There shall also be established a cell for Curriculum and Evaluation System Development, which will design the pedagogic package specific to the needs of the profession in the context of the larger developmental perspective.

10. Implementation of the Programme.

A. Academic

A maximum of 30 students shall be admitted to the first semester of the 5 year full-time course.

The teaching is scheduled to begin in August 1986.

By 1990, the undergraduate course shall have a maximum of 150 students. Further an additional 10 to 15 students would be admitted each year to the Postgraduate courses. The annual intake for part-time certificate course shall vary from 10 to 50.

The staff strength shall be built up progressively, as per the norms prescribed in item 8 (Faculty), and in relation to the student intake.

Necessary support staff, both technical and administrative, shall also be progressively built up as the student strength increases.

B. Financial

A) FIXED ASSETS.

1. LAND: The immediate requirement for the School of Design will be 2 acres in a fairly central location. With the same capital outlay it may be possible to get a larger area a little further out. This would allow for sports, self-sufficiency in food and energy, and larger areas for experimental building. A central location will however be more useful for students who depend on public transport for their travel needs. A figure of Rs. 10 lakhs has been allocated in the financial projections for the time being and could be revised later.

2. BUILDING: The building process will be a continuous one. The building costs have been worked out on the basis of an area requirement of 15 sq.m. per student. This is based on the recommendations of the Council of Architecture. Assuming a student strength of 225 after five years a building of 3375 square metres is envisaged.

Student Population	I	II	III	IV	V
Under Graduate	30	30x2	30x3	30x4	30x5
Post Graduate	15	15x2	15x3	15x4	15x5
TOTAL	45	90	135	180	225

In the first two years money has been set aside for rental accommodation. Work on the building has been phased out according to the growth of student strength. The requirement for a residential building is also anticipated, although the capital cost has not been catered for in this proposal.

Built Space Requirement

Year	I	II	III	IV	V
Area (sq.m.)	NIL	1350	675	675	675

After 5 years, 1000 sq.m. residential block.

3. FURNITURE: A figure of Rs.6000 per student has been envisaged, and this could include all items of furniture related to offices, faculty, library, studios, computer centre, audio visual laboratory, and workshops.

4. EQUIPMENT: A mini computer with peripherals is the immediate need and would be provided in the first year. Equipment for the audio-visual lab would also need a capital outlay as suggested in the table, and would include projectors, VCR, cameras, and other related items .A workshop and art studio would be equipped to a standard that would allow students to achieve a degree of professionalism. The cost would also include establishing a library of books, slides, tapes, journals, etc., on design and related subjects.

5. VEHICLES: The School would need a few vehicles, and one matador van would be procured in the first year. During the next four years the school would be buying vehicles that save energy and would try to acquire electric vans.

B) RUNNING COSTS:

1. SALARIES:

A. Faculty members:

The teacher student ratio of 1:8, and faculty ratio for Professors, Assistant Professors and Lecturers of 1:2:2 have been proposed considering the norms prescribed by the Council of Architecture. The minimum teaching hours for each semester has also been taken into consideration. The faculty strength projected for the five years, based on the above ratio shall be :-

Years	I	II	III	IV	V
i. Professors	1	2	3	4	5
ii. Assistant Professors	2	4	7	9	11
iii. Lecturers	3	5	7	9	12
TOTAL	6	11	17	22	28

The faculty shall consist of permanent and part - time/visiting members. The salaries and perks for each category of faculty members are estimated as :-

i. Professors	Rs. 5000/-	+ 20% P.M.
ii. Assistant Professors	Rs. 4000/-	+ 20% P.M.
iii. Lecturers	Rs. 3000/-	+ 20% P.M.

B. Technical Staff

The requirement of technical personnel in the following areas and their salary grades are:-

a. Computer Centre	Rs. 3000/-	P.M.
b. Library I	Rs. 3000/-	P.M.
II	Rs. 1500/-	P.M.
c. Audio visual	Rs. 3000/-	P.M.
d. Art Studio	Rs. 1500/-	P.M.
e. Workshop	Rs. 2000/-	P.M.
f. Experimental Building Yard	Rs. 1500/-	P.M.

Projected Requirements

	Year	I	II	III	IV	V
1. Computer Centre		1	2	2	2	2
2. Library		2	2	2	2	2
3. Others		2	4	4	4	5

C. Administrative Staff:

	Year	I	II	III	IV	V
Registrar	Rs. 3000/-	1	1	1	1	1
Office Suptd.	Rs. 2500/-	2	2	2	2	2
Steno	Rs. 2000/-	2	4	5	7	7
Typist	Rs. 1500/-	1	2	3	3	4
Clerk	Rs. 1000/-	3	3	5	8	8
Attendant	Rs. 500/-	2	2	3	4	4
Cleaner	Rs. 500/-	1	2	2	2	2
Mali	Rs. 500/-	-	1	1	1	1
Driver	Rs. 1000/-	-	1	2	2	3
		12	18	24	30	32

2. OVERHEADS

Provision for rent of Rs 60,000/- for the first year and Rs.75,000/- for the second year has been made.

Other expenditure items like rates, taxes, electricity and water charges, telephone, stationery, publications, vehicle maintenance and miscellaneous expenses have been included under this head.

NOTE: These estimates are preliminary and would need further scrutiny once the School starts.

11. FINANCIAL PROJECTIONS FOR FIVE YEARS

FIXED ASSETS (lakh Rs.)	Ist	2nd	3rd	4th	5th	Total
1. Land - approx. 2 acres	10.00	----	----	----	----	10.00
2. Building - 3375 sqm.	----	55.69	30.62	33.69	37.06	157.07
3. Furniture	3.38	3.71	4.08	4.49	4.94	20.60
4. Equipment						
a) Library books & Documents	4.00	1.00	1.00	1.00	1.00	8.00
b) Mini Computer Centre	3.00	0.50	1.00	0.50	1.00	6.00
c) Audio Visual Laboratory	2.00	0.50	0.50	0.50	0.50	4.00
d) Art Studio/Craft Workshop	1.50	0.50	1.00	0.50	1.00	4.50
e) Experimental Bldg. yard	0.50	1.00	0.50	1.00	1.00	4.00
5. Vehicles	----	2.00	3.00	----	2.00	7.00
TOTALS	24.38	64.90	41.70	41.68	48.50	221.17

RUNNING COSTS (lakh Rs.)	Ist	2nd	3rd	4th	5th
1. Salaries & Perks					
a) Faculty	3.17	6.38	10.10	13.33	16.91
b) Tech. Staff	1.50	2.50	2.62	2.62	2.98
c) Admin. Staff	2.16	3.28	4.36	5.52	5.86
	6.83	12.16	17.08	21.47	25.75
2. Overheads	3.25	4.30	4.74	5.39	6.34
3. Repairs & Renewals	--	--	5.20	6.10	7.35
	10.08	16.46	27.02	32.67	39.44
TOTAL (Fixed & Running Costs)	34.46	81.36	68.73	74.35	87.94

FOUNDER/LIFE MEMBERS

1. A.G. Krishna Menon
2. Ashok Lall
3. M.N. Ashish Ganju
4. B.B. Choudhary
5. K.L. Nadir
6. Jogi Panghaal
7. Sheba Chhachhi
8. Athmaram Katakam
9. Ali Baquer
10. Ranjit Sabhiki
11. P.V. Pillai

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