

Royal Institute of British Architects

CONFIDENTIAL
Draft Report of the RIBA Visiting
Board to the Pontificia
Universidad Católica de Chile

Confirmed by RIBA Education Committee X XX 200X

School of Architecture
Faculty of Architecture, Design and Urban Studies

Licentiate in Architecture, Professional Title in Architecture, Part
One and Part Two

Date of Visiting Board: 24/25 May 2010

1. Information About the Courses

1.1 Courses offered for revalidation:

Licentiate in Architecture, Professional Title in Architecture, Part One and Part Two

1.2 Address of the Institution where the courses are delivered

Pontificia Universidad Católica de Chile
El Comendador 1916 - Casilla 114 D
Santiago
Chile

1.3 Name of Awarding Body

Pontificia Universidad Católica de Chile

1.4 Name of Head of School

Juan Ignacio Baixas Figueras

2. Membership of the Visiting Board

2.1 The members of the RIBA Visiting Board for the visit on 24/25 May 2010 were:

Alan Jones (Chair)
Carl Meddings
Alison Mackinder
Peter Culley
José Domingo Peñafiel, regional representative

Stephanie Beasley-Suffolk (RIBA) was in attendance as Secretary to the Board.

3. Procedures & Criteria for the Visit

3.1 The Visiting Board was carried out under the RIBA Principles & Procedures for the Validation of International Courses and Examinations in Architecture' November 2007 and the 'RIBA 'Criteria for Validation', published March 2002, effective from September 2003.

NB: from September 2011, new RIBA criteria for validation will apply to all courses requesting validation or revalidation. A copy of these criteria is included with this report; the faculty should reflect these criteria when making any changes to programme structure, content, and delivery.

4. Recommendations of the Visiting Board

4.1 The Visiting Board recommended **Continued Validation** of the

Licentiate in Architecture, Professional Title in Architecture, 6 years (12 semesters) full time.

The Board recommends that Part One is deemed to be achieved on completion of semester 7.

The Board recommends that Part Two is deemed to be achieved on completion of semester 12.

4.2 The next Visiting Board should take place in 2015.

5. Criteria for Validation

5.1 On the basis of the sample of academic portfolios examined, the Visiting Board was satisfied that all the students graduating from the courses and examinations listed in 4.1 above satisfied all the Criteria for Validation

6. Standards

- 6.1 On the basis of the academic portfolios examined, the work from the previous year of the courses listed in 4.1 inspected during the visit was found to meet the required standards.

7. Conditions of Validation

- 7.1 There were no conditions attached to the courses listed in 4.1.

8. Standard Requirements of Recognition

- 8.1 RIBA recognition of all courses/qualifications is dependent upon:
- i. external examiners being appointed for the course;
 - ii. any significant changes to the courses and examinations being submitted to the RIBA
 - iii. any change of award title, and the effective date of the change, being reported to the RIBA so that, where appropriate, recognition may formally be transferred to the new title by the RIBA
 - iv. submission to the RIBA of the names of students passing the courses/qualifications listed in 4.

9. Summary of Previous Visiting Board Reports

- 9.1 The last Visiting Board to the Pontificia Universidad Catolica De Chile, Santiago, Chile took place on 11 to 15 December 2003. The Visiting Board recommended to the Education Committee of the RIBA that:

Continued validation be given to the six year full-time course (Curriculum 2003) and related examinations leading to the Professional Qualification in Architecture of the Pontificia Universidad Católica de Chile, Santiago which should be recognised as giving continued exemption from Parts One and Two of the RIBA Examination in Architecture.

10. Details of the Conditions in Item 8.

- 10.1 There were no conditions attached to the courses listed in 4.1.

11. Recommendations

- 11.1 The Visiting Board has made the following recommendations. The RIBA expects the Institution to report on action taken or planned as a result of the recommendations in the annual monitoring returns submitted by the school and in the mid term review. Failure by an Institution to act on recommendations, or provide the RIBA with a clear rationale for not doing so, may result in a course being conditioned by a future Visiting Board.
- 11.2 The Board notes the School's intention to restructure the programme into a 3+2 format in line with the Bologna agreement. The Board reminds the School that it is obligatory to notify the RIBA New Courses and Course Changes Group of significant changes to any validated programme.

- 11.3 The Board would like to bring to the School's attention that the RIBA Criteria for Validation have recently been revised and will apply to all validated programmes of architecture from 2011. Schools will be formally notified by the RIBA in the near future. The School should be mindful of the revised criteria when considering any modifications to its programme of architecture. The next Visiting Board in 2015 will expect the programme of architecture to comply with the revised criteria.
- 11.4 The Board recommends that a compulsory component of building technology be included into semesters 8-12 (Part Two).
- 11.5 The Board acknowledges that there are exemplary studies in the area of technology and environment. However, the Board recommends that technology and environment is more fully integrated with the content and assessment of major design studio projects to demonstrate the requirements of the RIBA criteria are being achieved by every student.
- 11.6 It is widely recognised that high quality architectural education involves peer learning through group tutorials, group work and students working together in preparation of their work. The Board recommends that the School provides more and better studio space to facilitate student working, enhance the studio output and encourage a greater debate about the process of design. The issue of studio provision was expressed by the staff and students and was previously raised in the 2003 Visiting Board Report. The Board recommends the School and University focus their efforts to address this matter.

12. Advice

- 12.1 The Visiting Board offers the following advice to the Institution on desirable, but not essential improvements, which it is felt would assist course development and/or raise standards;
- 12.2 The Board advises that the semesters 6 and 7 might be reversed with a view that there might be a perceived benefit to content and attitude in Formation 5.
- 12.3 There was little evidence of process in the design work presented to the Board. The Board observed a considerable amount of output but would have welcomed more documentation of the process. The Board notes the changes in the teaching methodology over the last few years and encourages further exploration of the best ways of teaching and learning architecture, particularly through the formative design processes. This aspect of teaching could be developed further through research.
- 12.4 The Board recognises that there are existing University processes for the evaluating of teaching but advises that the School might find ways to enhance the processes, within the wider University Quality Assurance systems, by which evaluation of course content by staff and students more openly informs the development of the programme.
- 12.5 There was some indication of a lack of understanding of assessment criteria by students, particularly in the early years. The Board advises the School to revisit ways in which project aims and assessment criteria are communicated to students. This would potentially lead to greater transparency and parity between projects in the existing studios.

13. Commentary

13.1 Self-Appraisal and Developments since the last visit

The Critical Self-appraisal was a thorough and informative document, in which the School portrayed itself as confident and ambitious yet open about its perceived weaknesses. The Board welcomed the detailed response to each of the recommendations of the last RIBA visiting board.

The Board considers that this is an excellent school and that the standard of students' work was very high. The Board was particularly impressed with the School's approach.

The Board was pleased to see the investment in facilities since the last visiting board, which include plans for a new building. There has been a significant enhancement of existing accommodation. The University has acquired some formerly private houses adjacent to the School to form studios for postgraduate students. A new workshop and computer room have been added. Workshop and IT facilities have been considerably augmented.

The Board notes the appointment of new staff, particularly in the area of sustainability and environmental design and Systems and Building Technology. The new staff appointments recognise the drivers for design and the need to integrate technology and environment into studio work.

The provision of MSc programmes has been expanded. There is potential for these to interact with the validated architecture programme.

The Board notes the establishment of the continuing education programme in 2007, which operates across different academic units offering 12 Diplomas per year. Four of these programmes are part of the School of Architecture: Sustainable Architecture, Landscape Construction, Lightning and Digital Architecture. This is intended to foster synergies between disciplines. This will enable ex-students to remain engaged with developments in architecture. The modules developed for this enterprise may eventually form part of an MSc. The Board applauds the potential this course has for further development.

Internal quality assurance processes are undergoing constant revision and improvement. The quality assurance office deals with national and international accreditation and monitoring of internal processes. This includes evaluation of all subject areas, which includes student feedback, monitoring the individual subject areas' responses to quality assurance processes and consideration of assessment processes and learning outcomes.

The Board considers that the School is at an exciting point in its development and commends it for addressing local issues with a global perspective. Its plans for the future are highly ambitious.

The School's response to the recent earthquake was inspiring and would have provided a great learning opportunity for the students. The Board hopes that this will bring technology more to the fore. This has compelled the students to think about environmental enclosures. The School's response to the earthquake also provided opportunity for collaborative working across groups where this had not previously occurred.

The Board considers that some of the peripheral projects were outstanding and that many studio projects were interesting.

13.2 Documentation and Arrangements for the Visit

All arrangements for the visit were excellent. The Board wishes, in particular, to thank Daniel Del Campo for his hard work and assistance at every stage of the visit. The documentation was exemplary and all work was provided as required in accordance with the Procedures.

13.2.1 Record of Academic Portfolios sampled during the visit
The School provided the three lowest, 2 middle and 2 high pass portfolios from each stage of the five year programme.

13.3 Responses made to the previous Visiting Board report (and to reports of any revisits) and external examiner comments.

The School had clearly responded to the advice of the 2003 Visiting Board. The external jurists confirmed that the staff actively sought and responded positively to constructive criticism.

The 2003 Board encouraged the School “to review its approach to the provision of studio space with a view to developing a stronger studio culture. It is felt that this would enable the School to further extend the design and practical achievements of students.” The present Board notes that this is an evolving situation and it was discussed in detail during the visit. The present Board believes concurs with the 2003 Visiting Board and the opinions expressed by staff and students during the 2010 visit that studio output would be enhanced with better studio space allowing more students to work in studio. This would

assist with the development of peer learning through group tutorials and group work.

The School has also responded to the 2003 Board’s comments regarding the teaching and integration of construction and technology with a change in teaching methods and the appointment of three members of staff with higher qualifications in Systems and Building Technology.

The number of new optional courses and Exercising Studios in each semester has been increased. The School has also responded to comments regarding the consideration of sustainability by introducing it progressively as a topic at different levels and across thematic lines. Two full time appointments have been made in this area, which should also form the basis for a new Masters programme.

In response to recommendations and advice of the 2003 Board, the School also reviewed the Formation phase with a view to providing ‘increased challenge and pace’. The Board also advised a review of assessment methods to achieve greater consistency and transparency across studios. The School believes that these were achieved by more effective incorporation of more exercises in the studio with weekly deadlines and the implementation of a mid-term review in Formation studios 3, 4 and 5.

13.4 Context of the courses within the wider provision of the school and Faculty.

The School of Architecture forms part of the Faculty of Architecture, Design and Urban Studies alongside two other academic units, the School of Design and the Institute of Urban Studies (a postgraduate institute).

The School is slightly physically isolated from the rest of the University. The Board recognises that this has both advantages and disadvantages. The Board applauds the staff's wish to forge closer links with other areas within the University, which are clearly articulated in the School's vision and the development plans. There are existing masters programmes in Architecture, Urban Project, Landscape Architecture, Urban Development and Human Settlements & Environment.

As mentioned earlier, the Continuing Education programme has been established to help architects keep up to date and to produce synergies within the Faculty. It is intended that modules developed in connection with this may form part of an MSc. There is already a module in sustainability and green energy which will become an MSc.

13.5 Detailed Commentary on the Course, semesters 1 to 7 (Part One)

13.5.1 Clarity, validity and achievement of course objectives
For the purposes of RIBA validation only, this report considers the 12 semester continuous programme separately under the criteria for Part One and Part Two.

The course objectives were clear, valid and demonstrably being achieved. The ethics of creativity and the will of reality form the basis of the school's philosophy. Throughout the five years of the programme students display an awareness of the issues facing the country, professional, social and political, which are approached from a global perspective. The School is aware of its responsibility towards the country.

13.5.2 Course design and content

The architecture programme at PUC is a continuous six-year programme (12 semesters) leading to the licentiate and professional title of architect. It comprises three phases: the Formation phase (semesters I to VII); Exercising phase (semesters VIII to X) and Qualification (semesters XI and XII). The formation phase focusses on fundamentals and the Exercising phase allows students begin to specialise through the choice of options. The Qualification Phase leads to the title of architect. In order to obtain the Professional Title, students must also have completed internships: Building Internship and Professional Practice. Semesters 1 to 6 are compulsory; there are five compulsory 'workshops' (i.e. design studios); the sixth is left free to allow students to pursue other subjects or to resit elements if necessary. Students must pass each phase to progress to the next.

The courses and studios are divided into five disciplinary areas. The Exercising Phase is the most flexible area of the curriculum; students may choose to specialise in one of three thematic areas: Architecture and Heritage, Urban Project or Architecture Systems and Technology.

The first internship is at the end of the sixth semester. In the Exercising phase students also complete a professional internship in an architecture office and a service internship. Technology and history and theory run in parallel with design studio.

The Board commends the implementation of the The incorporation of a compulsory Research Studio in the third year. This involves instruction in basic research methods and the School reports that it has increased theoretical thinking and written expression capacities among students.

In the Qualifying Phase (semesters XI and XII) students participate in either a Thematic Studio or an Open Studio, in which students can propose their own theme and develop it in a group under a tutor's guidance. Students must also complete two specialisation electives. An alternative route to qualification allows students to complete one of the five masters degrees after obtaining the licentiate degree. Students wishing to qualify via this route must incorporate a design component in the final thesis.

The Board advises that semesters 6 and 7 might be reversed with a view that there might be a perceived benefit to content and attitude in Formation 5.

The Board advises that regulatory issues be given greater emphasis at an earlier point in the programme, both in terms of programme content and assessment criteria.

13.5.3 Quality and coverage of the syllabus

- *Design*

This is covered well through a range of interesting projects. One of the School's strength is working in a Chilean context.

- *Technology & Environment*

This is very well covered in the theoretical elements of the taught programme. The Board considers that the studio ('workshop') building technical aspects are exemplary. However, the Board refers the School to recommendation 11.5. The Board recommends that technology and environment is more fully integrated with the content and assessment of major design studio projects to demonstrate the requirements of the RIBA criteria are being achieved by every student.

The Board welcomes the new staff appointments in this subject area and looks forward to seeing their influence in students' work.

The Board draws the School's attention to two specific areas of the Part One technology and environment criteria:

"At Part 1 students will demonstrate, within coherent architectural designs and academic portfolio, the ability to integrate knowledge of:

- The principles of building technologies, environmental design and construction methods, in relation to:
 - the welfare of future generations
 - consideration of a sustainable environment

- *Cultural Context*

The Board applauds the coverage of cultural context which is very strong. History and theory would appear to be strong and clearly inform studio work.

- *Communication*

The quality of representation is very high and a great variety of media are used. Students display a high level of competency in drawings (both hand-drawing and computer-aided), models and writing. Students are strong in sketching.

- *Management Practice & Law*

The School is to be commended on the depth of study in Management Practice and Law through the Building Internship and the resulting study.

There was however some concern expressed by female students regarding the availability and appropriateness of positions in the Building Internship. The options for suitable experience may need to be widened in order that these students are not disadvantaged.

- *Preparation for Professional Experience*

Internships – refer to management practice and law.

13.5.4 Progression within the course

The Board noted that the failure rate was high, given the quality of the intake. Progression rates appear to vary across modules. The Board advises that this should be monitored and investigated. The Board suggests that making content and assessment criteria more explicit might help.

13.5.5 Assessment:

The heavy assessment regime was cited as a possible weakness in the critical self-appraisal. A variety of methods is employed depending on the phase of the programme. Theoretical courses and studios assessed according to different methods, with theoretical work being considered chiefly through tests or written submissions.

There is a significant difference between assessment in the formation studios, which look at process, and the exercising studios, in which the final product is assessed. The formation studios chiefly involve school staff; external architects with expertise in specific areas (related to the project) are invited to participate in the exercise studios. The final assessment is conducted by juries in public, who consult with staff to agree the minimum passing level and the grade.

Students receive 1 to 1 verbal feedback in earlier stages and then written feedback from the final commission. The assessment process is currently being further developed by the school, as part of the ongoing refinement of internal quality assurance processes.

As noted earlier, there was some indication of a lack of understanding of assessment criteria by students, particularly in the early years. The Board advises the School to revisit ways in which project aims and assessment criteria are communicated to students. This would potentially lead to greater transparency and parity between projects in the existing studios.

13.5.6 Admissions and arrangements for direct entry at a stage other than the start of the course

There are two main routes to admission. The majority of entrants are those who have studied in the Chilean school system, at least the four final years of high school and have taken the University Selection Test (the nationwide system). PUC's institutional system allows applicants to list three programmes in order of preference and selection criteria are applied to a student's score in the University Selection Test. There are two entry points, at March and August. Approximately 50 students are admitted at each entry point. Entrants to PUC score very highly in the University Selection Test.

A Special Admissions system considers those entering at later stages of the programme or who have special characteristics (these may include change of career or profession, disability or outstanding abilities in different areas). Applicants must prepare a portfolio and/or be asked to attend for interview. The application is then considered by special commission. It is possible only to be

accepted beyond the third year in exceptional circumstances.

In 2002 the University introduced the Bachelor programme which is a two year programme beginning with a year-long basis sciences programme. Students may join another academic unit in the second year. They may then enter one of the main programmes. Architecture offers 14 vacancies to graduates of this programme who are selected according to grades in school and in the Bachelor programme.

The University has a policy of widening participation; scholarships are available to those from lower income families. The school reported that although these are available, it is difficult to attract applicants from these income groups.

13.6 Detailed Commentary on the Course, semesters 8 to 12 (Part Two)

13.6.1 Clarity, validity and achievement of course objectives
The course objectives were clear, valid and demonstrably being achieved.

13.6.2 Course design and content
The level of flexibility offered by the electives in semester 12 can be considered a strength. However, technically this may enable students to avoid aspects of the curriculum in which they are less interested. The Board believes that it is necessary that School exercise greater control with regard to electives at this stage of the programme in order to ensure a balanced education, hence its recommendation that a compulsory component of building technology be included into semesters 8-12 (Part Two).

13.6.3 Quality and coverage of the syllabus (including balance and integration between design/non-design work)

- Design

The influence of urban design and landscape content is very strong.

The Board noted in particular the students' ability with regard to the criterion that "...will produce and demonstrate coherent and well resolved architectural designs that integrate knowledge of:

- The social, political, economic and professional context that guides building construction"

And the understanding of

- Briefs and how to critically appraise them.

The Board refers the school to the following criterion, the consideration of which should be strengthened:

"At Part 2 students will produce and demonstrate coherent and well resolved architectural designs that integrate knowledge of:.....And ability to:

- Generate and systematically test, analyse and appraise design options, and draw conclusions which display methodological and theoretical rigour

The School is aware of the need to improve integration between theoretical work and design studio, which was also raised as a challenge by the external jurists. The School reported some successes in this area.

- *Technology & Environment*

The Board's comments at Part One also apply to Part Two. Students are particularly strong on structure by the conclusion of the programme.

This is clearly a developing area in the school and the profession. The Board believes that this is an important area for the School to develop as it prepares students for professional life. The Board recognises that the School is in a strong position to lead the country in this matter.

- *Cultural Context*

The Board commends the School's strength in the area of cultural context.

- *Communication*

The Board's comments at Part One with regard to the strength of students' skills and the variety of media used also apply to the later years of the course.

- *Management Practice & Law*

The Professional Practice Internships in semester 8 give the students a good insight into architectural practice and the architect's role in society. The experience is well documented and thoroughly covers the criteria.

13.6.4 Progression within the course

The Board's comments with regard to progression at Part One are also applicable to the later stages of the programme.

13.6.5 Assessment:

The Board refers the School to its advice under paragraph 12.5, which also applies to the later years of the course although to a lesser extent.

13.7 **External examining arrangements**

The Board considers that arrangements for external scrutiny are good. Experts are involved in crits. External juries are involved in examination of the final studio, at which each student presents his or her work, for which they also produce a report.

There is firstly an explanation for each studio. Then each student introduces his or her project. Then the jurists, teacher and student participate in a discussion. This process is open and can be attended by other students. When the student has finished the first part of the project the head of commission writes a report which is given to the student to assist with the second part. Jurists are chosen for their expertise in accordance with the theme of the project. There is a constant dialogue between the student and reviewers and jurists were content that students understood their grading.

The Board considers that this is a robust system, being similar to that in the UK but more focussed. There are also regular meetings between the direction of the school, staff and external jurists to discuss the performance of the individual studios or specific areas of the curriculum. The School shows awareness of areas needing improvement and responds positively to external feedback.

13.8 **Arrangements for Monitoring Professional Experience**

This is covered under the Internship programme described in the Part One and Part Two Management, Practice & Law sections.

13.9 **Students:**

The student meeting was very well attended and all years were represented, including postgraduate courses. Students were confident, articulate and candid, displaying commitment to and support of the School. Students come from all over Chile although the majority come from Santiago.

Students were attracted to PUC because of the following:

- Its reputation
- Consideration of social issues.
- Its strength in urbanism
- The range of studios allowing consideration of different topics and the opportunity to develop one's career in any direction.
- Sustainable architecture and being given tools to engage with problems in Chile. Students recognised the important role they have in the development of sustainable architecture Students particularly appreciated the opportunity to be involved in outreach programmes in the aftermath aftermath of the earthquake.
- Prestigious architects invited to participate in classes.
- The accessibility of staff either in person or email, particularly given that not all students can work in school at the same time
- Student feedback is actively sought through the mid-semester survey and the University end of year Students believed that their feedback did have impact on the development of the programme but do not see the overall evaluation at the end of the survey process.

Among areas students would like to improve were the following

- Facilities, in particular space. Many work at home in groups. Some expressed the wish that they had more actual contact time with staff, although staff are always available via email. Students like working in the school as it forms a community but pressures on space make this difficult. It was acknowledged, however, that the School is aware of the limits on space and it is hoped that the new building would improve this.
- The heavy workload. Some expressed the desire for more time to develop projects.
- Internships were varied in terms of type and relevance; overall students found them useful, although female students reported that it could be difficult to be involved in construction projects.

The Board learned that scholarships are available for students from low income families and 50% of students receive some level of scholarship funding. The School reported difficulties in attracting applicants from low income families in the first place. The Board advises the School to consider ways in which this might be more widely publicised.

13.10 **Staff:**

The meeting very well attended and staff engaged in a candid and wide-ranging discussion with the Board.

The staff body comprises permanent staff and invited lecturers who are engaged for shorter periods. The School currently has 57 academic tenure staff and 55 non-tenure. At the time of the visit there were 743 undergraduate and 146 graduate students attached to the architecture

programmes. Appointments have been made in the area of sustainability and environmental design and systems and building technology. A planning strategy is in place for replacing those who leave or retire.

The staff demographic is very healthy, with a good gender balance. Staff are drawn from a wide variety of backgrounds in terms of professional interests; many are also actively engaged in professional practice and there is a range of international experience. All academic staff are engaged in research which informs teaching. The Board considered that there is a good balance between research, practice and teaching.

Staff training and development from part of the School's ongoing development plans. An increasing number hold higher degrees. Support is provided for travel overseas for research or further qualifications.

The meeting was particularly useful for exploring aspects of the curriculum and the school's philosophy. Staff realise that they have to equip their students to explore and confront broader aspects of Chilean society and to help prepare them to play a wider role.

13.11 **Research:**

The School has a very active and positive approach to research. The time allocated to research has increased considerably over the last few years and the output of publications in peer reviewed journals has grown. The School's own publications include a magazine and yearbook.

The graduate programmes of the School of Architecture have grown in the last few years and are now connected with undergraduate programmes through an integrated

courses curriculum. In 2008 two new masters programmes were established: Master in Urban Project (MPUR) and Master in Landscape Architecture (MAPA). With the existing Master in Architecture (MARQ) and the master programmes performed by the Institute of Urban Studies (Master in Urban Development- MDU and Master in Human Settlements and Environment -MAHMA) formed part the "Graduate Integrated Curriculum", that since 2004 allow students in the Exercising and Qualification phases to specialise and qualify through the masters route. The School plans to establish Masters related to the themes of sustainability or heritage. A Ph.D. in Architecture and Urban Studies is also available.

Research activity is continuously expanded and strengthened: four new Research Centres and programmes have been established; the Wood Innovation and Development Centre (CIDM), the ELEMENTAL programme (social low income housing) Atacama Desert Study Centre (CDA), Cultural Heritage Study Centre (CDC). Research is linked to student projects in various areas. There are links between professional practice, research and teaching, for example case studies from research and consultancy (such as the school's work with the Housing Ministry) are used in teaching. This is an iterative process with student work also being fed back into the research.

There is a relationship between research and the exercising studio and formation studio at level 7.

The School is proud of its publications which include a magazine and yearbook.

13.12 **Equal Opportunities**

The gender balance among both staff and student bodies is 50/50. The Board note the desire of PUC initiative to provide scholarships to students from less affluent backgrounds.

13.13 **Resourcing and facilities:**

The Visiting Board considered that the library, materials workshop and IT provision were commendable.

The campus has been enlarged and enriched over time. Staff and students agree that the atmosphere is excellent, despite some drawbacks, the most significant being the pressure on space, particularly in the studios. The increased emphasis on staff research has also contributed to this problem. Ideally the School would like to provide sufficient space for all students to work in studio and students are encouraged to do so as space permits. Allocation of studio space is organised by the students themselves. Desk crits have become less common; greater co-ordination has been necessary and there is less spontaneity. Staff believe that more space will promote greater levels of peer learning and facilitate model building. The new building should improve the situation but will not resolve it entirely. The School's space needs have been taken into consideration in the development plan.

The Board commends the vibrancy evident in the School, despite these challenges.

- *Library*

The purpose-built Library opened in 1997 and has recently been extended to house an advanced computer laboratory. The Library is an important space in the School, providing

space in which students can do group work. It is also open to alumni. The collection comprises over 90000 volumes including books and periodicals. The Library is connected to the main PUC Library system allowing students access to over 1.6 million items.

All student theses written since 1995 are retained. The archives have benefited from many bequests, including material relating to important architects who are connected to the school in various ways.

- *Workshop*

There is a combined metal and woodwork facility. A Prototypes Laboratory has recently been established, which includes a CNC router, a 3D printer and laser cutters. These may be used by students if appropriate to the task in hand. The workshop also undertakes some work for practices and will also be used for commercial purposes. These developments assist the integration of technical disciplines into the student projects; staff reported that this is already having an impact on student work.

- *IT*

The library extension houses an advanced computer laboratory in which 3D Studio Max, Form Z, Maya, Ecotec, Gehry Tech and ARC Gis, among other software programmes, are available.

14. **Documentation**

The School provided all documentation required by the Procedures for Validation.