



EVALUATION OF ARCHITECTURE STUDIES

GENERAL REPORT

COMMITTEE FOR THE EVALUATION OF ARCHITECTURE STUDIES IN ISRAEL

April 2022

Section 1: Background and Procedures

1.1 Background

In the academic year 2022 the Council for Higher Education [CHE] put in place arrangements for the evaluation of study programs in the field of Architecture in Israel.

All the schools the Evaluation Committee (EC) visited had prepared for the visit in ways they thought best. The EC felt welcome, and clearly each school considered the evaluation as important.

1.1.1 Architecture in Israel & Teaching of Architecture

As of 2020, there are circa 11,500 holders of architectural certificates in Israel. However, it is estimated that only 50% are actively working as architects. There are 3,000 active firms with large, medium, small, and independent architects. The industry is considered relatively concentrated, with large and medium size firms performing most of the large works. Currently, there is a demand for architects, a demand which will increase in the coming years.¹

1.1.2 Particularities of Architecture in Israel

In Israel there exists a long history of architecture and planning. The clear need for planning from the single building to the urban and national scale continues due to rapid population growth which increases the need for housing and infrastructure development. Currently, the state of Israel counts almost 9 million people. According to Israel's Central Bureau of Statistics, by the year 2065 Israel is expected to reach 20 million people.² As the country is relatively small and partly arid, most of its development takes place in its central region. Consequently, intensive urbanization and construction lead to increased urban density, land use change, and transformation of rural areas, causing environmental change and decrease of open spaces.

Diverse needs in housing and infrastructure drive construction supported by a high investment of public funds in infrastructure and public buildings, and a strong private market. Social and ethnic heterogeneity and dynamics impact planning aims and targets.

In Israel, there exists a strong connection between architecture and planning. Architecture is a profession, as well as an academic field and teaching discipline of multiple subjects and their interrelationships. Over the last 20 years, new schools and new programs in architecture and urban planning have emerged in Israel. More recently there are plans for diversification of degrees provided by the different institutions. It has been pointed out that the heads or deans of the different institutions are in frequent conversation and exchange with one another. The potential benefit of the exchanges is the possibility to maintain different profiles and approaches that are distinct, yet complementary on a national scale. The potential downside is that this can also nurture a bottom-up homogenization of

¹ <https://finance.walla.co.il/item/3438069>

² <https://www.cbs.gov.il/en/mediarelease/Pages/2017/Projections-of-Israel-Population-until-2065.aspx>

education through similarity in structure and infrastructural investments that can diffuse the distinct differences between the institutions.

Gender balance has changed recognizably in the discipline of architecture displaying a considerable increase in the number of female students and teachers.

1.1.3 Particularities of Architecture as a Discipline

Architecture is a complex discipline, since a simple built object inserted into a large urban area requires collaboration and insight from many different professions. The fundamental core of the discipline is the search for and understanding of physical space and from this to define and enhance human well-being.

Architecture is a multi-subject discipline. Typically, educational programs include instruction in architectural design, technology, history and theory, and urbanism/landscape. There is also a need for instruction in the different techniques or methods of representation, from digital to manual. It is frequently said that architecture requires education in both scientific and artistic subjects, but no less important are social and cultural aspects, economic, and political realities. Because the subjects are several and the time to degree is not unlimited, architecture students must “learn to learn”.

1.1.4 Relation between contextual and non-contextual approaches and themes

A contextual approach is an essential component in architectural education as this approach highlights and identifies the perception of core architectural identities and its physical realities. At the same time, the non-contextual approach is an important method or tool to investigate and further understand architectural autonomy.

Although it is important for every school of architecture to take advantage of its context (geographical, urban, environmental, and social), programs of study must also remain aware of national regulations, international developments in architecture and education, and where possible take part in those developments.

1.2 The Higher Education Institutions [HEIs] participating in the evaluation process were:

- Ariel University - School of Architecture
- Bezalel Academy of Art and Design - Department of Architecture
- Neri Bloomfield School of Design (WIZO) - Department of Architecture and Education
- Technion - Faculty of Architecture and Town Planning
- Tel Aviv University - Azrieli School of Architecture

The programs are for the sake of consistency referred to as “Departments” throughout the report.

1.3 To undertake the evaluation, the Vice Chair of the CHE appointed an International Quality Assurance Review Committee [EC; 'the evaluation committee'], under the auspices of the CHE's Committee for the Evaluation of Architecture studies in Israel³, consisting of:

- Prof. Michael U. Hensel, Faculty of Architecture and Planning, Vienna University of Technology, Austria, *Committee Chair*
- Prof. Tal Alon-Mozes, Faculty of Architecture and Town Planning, Technion, Israel
- Prof. Alessandra Battisti, Department of Planning, Design and Technology of Architecture, Sapienza University of Rome, Italy
- Prof. Per Olaf Fjeld, AHO Oslo School of Architecture and Design, Norway
- Prof. David Leatherbarrow, Weitzman School of Design, University of Pennsylvania, USA
- Prof. Rafi Segal, Department of Architecture, Massachusetts Institute of Technology, USA

Ms. Anat Haina served as the Coordinator of the Committee on behalf of the CHE.

1.4 The evaluation process was conducted in accordance with the CHE's Guidelines for Self-Evaluation (January 2020). Within this framework the evaluation committee was required to:

- examine the self-evaluation reports submitted by the institutions that provide study programs in Architecture;
- conduct on-site visits at those institutions participating in the evaluation process;
- submit to the CHE an individual report on each of the academic units and study programs participating in the evaluation;
- set out the committee's findings and recommendations for each study program;
- submit to the CHE a general report regarding the evaluated field of study within the Israeli system of higher education including recommendations for standards in the evaluated field of study.

1.5 The evaluation committee examined only the evidence provided by each participating institution — considering this alongside the distinctive mission set out by each institution in terms of its own aims and objectives. This material was further elaborated and explained in discussions with senior management, lecturers, students, and alumnae during each one-day visit to each of the institutions.

1.6 In undertaking this work the Committee considered matters of both quality assurance and quality enhancement — applying its collective knowledge of developments and good practices in the delivery of higher education in architecture (mainly from European countries and from the USA) to the evaluation of such provision in Israel.

³ The committee's letter of appointment is attached as **Appendix 1**.

Section 2: Quality Assurance

The purpose of this section is to report on specific areas identified by the CHE. This involves an assessment of whether the respective programs meet threshold standards that are key to delivering their mission.

1 The Institutions

In Israel study programs in architecture are at home in academies, colleges, and universities. Each case defines its leadership and academic structure in accordance with that of its home institution. The EC observed, however, that the way the different institutions present their plans through organizational charts, curricular development, faculty development, and implementation of research, seems to increasingly emulate Institution-specific development plans and structure rather than reflect the architecture school's own philosophy and approach to educating architects. This can have significant consequences for those institutions that are not currently universities in that this might transform their general identity as a type of institution, as well as their specific individual identity and teaching approach. The EC appreciates diversity and differences among architecture departments in Israel and acknowledges the positive impact different philosophies of teaching can have on the field of architecture in Israel, when made more explicit and actionable.

2 Infrastructure

Educating architects is space-intensive and requires discipline-specific infrastructure. The EC observed in all reviewed programs insufficient infrastructure and maintenance, and thereby did not meet threshold standards for some of their facilities. Refurbishment and upgrading of infrastructural items are necessary and specified in the reports for each individual study program. For future evaluations, a common minimum standard for infrastructure needs to be developed by CHE to serve as a guideline.

Architectural faculties generally consist of full-time and part-time teachers that require shared or individual office space. Adequate spaces must be provided for this purpose. The visited departments lack adequate spaces in one way or another.

Student learning and outcomes benefit from the close proximity of studio spaces, seminar and lecture rooms, laboratories, workshops, and other facilities. This is rarely the case in the departments visited by the EC. This is not only a question of the existence of adequate space for student learning - primarily studio spaces, lacking in all programs visited – but also the quality and attention given to these spaces.

With the increase in research activity, there must be a corresponding growth in research support infrastructure, particularly laboratories and workshops.

Adequate infrastructural plans for information technologies and digital transformation related aspects need to be developed by all programs. This does not replace the need for traditional information resources such as libraries and archives.

Exhibition and gallery spaces are important in architectural education, and when open to the public can serve as the basis for interaction with the wider community.

3 Human Resources

In all departments visited by the EC there exists devoted faculty.

However, there exists a clear imbalance between teaching loads and available faculty. The faculty-to-student ratio is typically higher in architecture because of the variety of required teaching formats and contents; especially studio teaching, which is essential in architecture, and often involves one-to-one contact between a teacher and a student.

Internationally all schools of architecture must include individuals who follow different career paths – professional practice, research, scholarly production, etc. – despite having been trained in the same discipline. Some schools have more of one type than the other, more practitioners than researchers, more scholars than practitioners, etc. This requires contracts and appointments of different types and lengths.

In all cases, mechanisms for recruitment, appointments, retention, support, and promotion criteria need clarification, articulation, and transparent communication. Such mechanisms will be decisive for the development of each program in Israel. This issue must be addressed immediately, and human resource mechanisms need to be checked in two to three years from now.

All visited departments need more senior professors. There is a clear and disabling shortage of full professors of architecture, especially in the context of the planned changes pursued by all programs. All schools suffer from this lack, not only in the development and offering of their teaching programs, but also in the school's participation in university-wide strategic planning and decision making. Moreover, all departments must plan and schedule for a composition of the faculty that is diverse in ranks and types that are appropriate for its educational mission, including full professors, associate professors, senior lecturers, lecturers, and other teachers, in the right proportions and right durations. A good mix of individuals at the beginning, mid, and late stages of their careers should also be planned. Correcting any imbalances in faculty composition will be a long-term initiative and must be planned and monitored.

In architectural education adjunct faculty play key roles, insofar as they introduce up-to-date knowledge and pertinent experiences from their professional experience into the teaching programs. In many cases, these individuals not only contribute to the teaching mission but also play roles in the administration and leadership of the program. Fair compensation for this additional work must be given. The possibility and merit of longer contracts should be considered in several schools, as that would strengthen the continual development of the school's mission. The definition of full- and part-time teaching positions differs widely in Israel's schools. This distinction must be clarified and communicated in each institution.

In architecture, many part-time faculty teach, serve in administrative roles, and undertake research. Currently, this latter kind of work is unrecognized and receives no compensation. Institution leaders should develop ways of addressing this problem.

4 Diversity

The EC considered diversity under three headings: faculty, students, and curricular content.

No indication of gender bias was evident, even though goals and accomplishments concerning gender balance were not presented in the Self-Evaluation Reports.

Ethnic diversity is recognized as a challenge in Israeli schools of architecture and has been addressed in various ways by the visited departments. However, this requires much more work and strategic initiatives, particularly with respect to faculty appointments, curriculum development, and strengthening grant support for mentoring, appointments, and scholarships for underrepresented minorities. The EC found a large gap between the ethnic composition of the student body and the equivalent representation within the faculty, full-time and adjunct. Dedicated searches for faculty of underrepresented minorities were not found but need to be undertaken.

5 Study programs

At visited schools, a variety of study programs exist, as well as different plans for changes and development. Existing and planned changes to the study program vary greatly, including models for 3+2 / 4+2 / 5+1 / 5-year study programs.

Furthermore, there exist several plans for increasing the range of available degree programs. The division of architectural education into two-degree programs allows individuals to leave with a degree in a shorter period, so they can pursue other academic or professional interests. A corresponding advantage is the status of the second, Master's degree, which is often the basis for higher status, possible position, or income within the profession.

International exchange efforts or programs exist in some of the schools; however, an adequate framework and support system is lacking in various schools. Institutions that intend robust interchange with European schools will benefit from program structures that are compatible with the Bologna protocol.

In the context of educating professionals for practice, greater effort must be placed on the specific educational content of each school. Career-long professional learning as a collaboration between the profession and schools should be planned and implemented.

6 Teaching and Learning Outcomes

Teaching in this subject often involves different combinations of the context-specific spatial, temporal, and functional dimensions of architecture. These are the core capacities of architecture that enable graduates to practice in architecture and contribute to or practice in other disciplines. The EC found evidence of the ability of graduates to perform in these ways. Also, clear to the EC was the capacity and concern of graduates to make positive contributions to Israeli society – be “agents of change”.

Graduates must possess a range of skills. Designs that are produced manually and digitally are required and are preparatory to professional practice and its requirements. The range of required or desired skills is becoming increasingly wide. The several schools in Israel accent some or other tools in accord with their educational mission. The self-evaluation reports attest to varying degrees of success in the delivery of skill-focused education. In comparison with international schools, architecture programs in Israel are not at the forefront of skill teaching, which has a negative effect on design experimentation.

Students generally viewed their assessment/grading as satisfactory. This indicates that assessment criteria are clear to students. But in all cases students indicated that written feedback, particularly in relation to projects, would benefit their education. Criteria for such feedback need to be established in terms of the learning outcomes of the courses and the specific aims set by the students.

7 Students

Most students are motivated and hardworking, and a comparatively high rate of graduates go into planning and architectural practice; however, a considerable number also go into other fields. The intellectual and creative levels compare favorably with international students. The spread of ages is wide, yet the commitment to study is uniformly strong. Students have a positive attitude concerning heavy workloads, but frequently face some problems with competing demands including those of family life and part-time work. These demands do not prevent students from taking part in the shaping of their academic programs, which allows them to feel engaged in their program's mission and their future careers. Student populations increased despite COVID.

8 Research

Internationally and nationally, research is becoming a more important activity and expectation in schools of architecture and in their academic home institutions. Due to the type and complexities of the subject of architecture, established models of research from other fields are generally insufficient models for architectural research.

This fact requires individual programs to develop their own approach to research in the discipline of architecture, its specific research capacity, and corresponding research outcomes. Research in architecture is often multi- or interdisciplinary and requires collaboration with other departments and faculties.

Given the fact that all visited schools are intending to increase research efforts significantly, it will be necessary to establish research deans (heads or chairs) and committees in each of these departments. Furthermore, it will be necessary to consider how the programs will respond, how they need to adapt to accommodate these changes, and how they will benefit from them.

To date, external funding sources for research in architecture have been harder to identify than in other fields. A framework for national and university priorities of funding does not exist but would help promote research in the field of architecture.

Individuals who are active in research work are appointed to departments and schools, but often given insufficient recognition, support, and compensation in terms of time and salary.

Leadership in each of the schools should determine the kinds of research work conducted by part-time teachers, which they should be compensated for.

9 Internal Quality Assurance

Extensive self-review is typical in the reviewed schools, but external reviews apart from the CHE seldom occur; unlike what is common in Europe and North America.

Internal Quality Assurance is to some extent, in need of more detailed elaboration in the reviewed departments of architecture. Most departments would benefit from standing QA committees and scheduled reporting.

Studio coordinators often review and harmonize aims and methods of studio teaching between different classes, assessing and in some cases assuring quality. However, to be beneficial for the study program, these internal reviews and assessments need a more defined structure.

Section 3: Recommendations

Recommendations

Essential Recommendations:

Considering the current rapid and extensive development of the country and the extremely important role of architecture in shaping Israel's landscapes (built and unbuilt), *it is essential that the various institutions, such as a university, support the departments of architecture in an appropriate manner. This support is essential in securing the departments' role in the development of new construction, built heritage, landscape and various aspects of diversity within the built fabric.*

The nature of research in the field of architecture and its association with each institution's educational objectives, needs to be defined and explained to university or college leadership. The appointment of research deans and committees is one way of accomplishing this objective. Clarification of these objectives needs to inform plans of faculty appointment and promotion, as well as advancing the discipline. Investment into key infrastructure, especially in the context of research, also requires a close examination of its benefit to long-term teaching and research plans.

There exists a clear need for each department to reassess their institutional objectives considering social, environmental, and economic challenges in Israel. This can lead to the formation of new areas of study of academic programs, such as landscape architecture, architecture and ecology, environmental planning and design, urbanism and technology, multi-domain and multi-scale planning and design, contemporary and future building technologies, etc.

The EC found a large gap between the ethnic composition of the student body and the equivalent representation within the faculty, full-time and adjunct. Dedicated searches for faculty of underrepresented minorities were not found. *A plan for addressing the issue of diversity among faculty members needs to be drafted and should be reviewed by the Council for Higher Education within two years.*

Important Recommendations:

Universities are uniquely suited to open debate and creative thinking about diversity, equity, and inclusiveness. *Departments of architecture can and should contribute to this culture in their student and faculty recruitment, and curriculum development.*

The development of related new courses and research programs that support and enhance diversity in study content should be established and funded.

The EC recommends, wherever this is not yet the case, for the Departments to consider a version of the CHE's "Professor of Creative Arts" parallel track, that recognizes artistic creation at the level of a major contribution to the field and to society, as equivalent to research.

The EC recommends that wherever this is not the case, academic assessment and development units should be made standing units.

Desirable Recommendations:

The EC recommends that the study programs in architecture in Israel collaborate on organizing an annual joint research day, during which current research of each study program is presented and

exhibited. Additionally, and perhaps in conjunction with the research day, it would be desirable for the study programs to jointly organize an annual PhD colloquium in which researchers can gain knowledge of research undertaken in architecture in Israel, exchange peer-review and build research networks.

Future Assessments

The following recommendations are made for future assessments that should be scheduled. The EC recommends that one or several members of the EC in collaboration with CHE review the implementation of these recommendations:

The EC recommends that each Department develops a detailed plan and strategy for how its education and teaching plan addresses preparation in relation to the profession. These plans and the first steps towards their implementation should be reviewed within the next two years.

The EC recommends that plans for the appointment of research deans and/or committees are prepared and implemented. These steps should be reviewed within the next two years.

The nature of research in the field of architecture and its association with each institution's educational objectives needs to be defined and explained to university or college leadership. This should take place and be reviewed within the next two years.

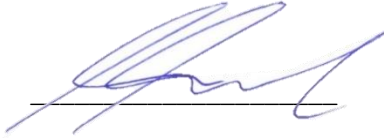
Furthermore, the EC recognizes that investment into key infrastructure is critical and needs to include a clear articulation of long-term benefits to teaching and research plans. This should be addressed by a strategic plan that should be outlined and reviewed within the next two years.

The EC recommends each institution sets up a system to use available administrative data on gender in an integrated way, and complement it with additional information that is not immediately available at the moment, such as: systematic collection, classification, analysis and periodic publication of quantitative and qualitative gender-disaggregated data relating to all relevant areas within the institution (e.g. student performance, age, origin, economic situation, disability; study load; attractiveness, internationalization and regularity of study paths; research and outreach activities and performance; career paths, roles, duties and responsibilities of academic staff; roles, duties and responsibilities of administrative staff). This should be reviewed within the next two years.

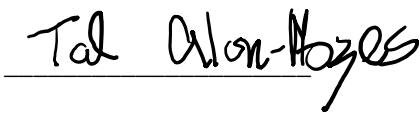
Signed by:

Prof. Michael U. Hensel

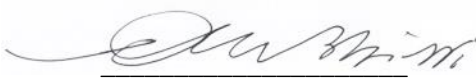
Committee Chair



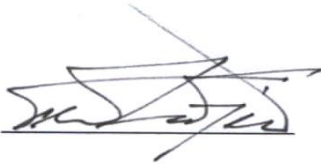
Prof. Tal Alon-Mozes



Prof. Alessandra Battisti



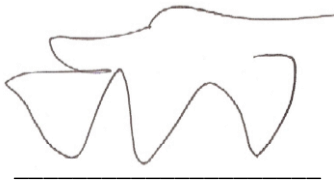
Prof. Per Olaf Fjeld



Prof. David Leatherbarrow



Prof. Rafi Segal



Appendix I: Letter of Appointment



January 2022

Prof. Michael U. Hensel
Department of Digital Architecture and Planning
Vienna University of Technology
Austria

Dear Professor,

The Israeli Council for Higher Education (CHE) strives to ensure the continuing excellence and quality of Israeli higher education through a systematic evaluation process. By engaging upon this mission, the CHE seeks: to enhance and ensure the quality of academic studies, to provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel, and to ensure the continued integration of the Israeli system of higher education in the international academic arena.

As part of this important endeavor we reach out to world renowned academicians to help us meet the challenges that confront the Israeli higher education by accepting our invitation to participate in our international evaluation committees. This process establishes a structure for an ongoing consultative process around the globe on common academic dilemmas and prospects.

I therefore deeply appreciate your willingness to join us in this crucial enterprise.

It is with great pleasure that I hereby appoint you to serve as chair of the Council for Higher Education's Committee for the Evaluation of **Architecture** departments. Other members of the Committee will include: Prof. Tal Alon-Mozes, Prof. Alessandra Battisti, Prof. Per Olaf Fjeld, Prof. David Leatherbarrow, and Prof. Rafi Segal.

Details regarding the operation of the committee and its mandate are provided in the enclosed appendix.

I wish you much success in your role as a member of this most important committee.

Sincerely,

Prof. Ido Perlman
Vice Chair,
The Council for Higher Education (CHE)

Enclosures: Appendix to the Appointment Letter of Evaluation Committees

cc: Dr. Varda Ben-Shaul, Deputy Director-General for QA, CHE
Ms. Maria Levinson-Or, Senior Advisor for Evaluation and Quality Enhancement, CHE