

Committee for the Evaluation of Academic Quality for Industrial Design Studies

Evaluation Report



Shenkar College of Engineering and Design

Department of Industrial Design

Academic evaluation January 9-10, 2008

Background At its meeting on October 31, 2006 the Council for Higher Education (CHE) decided to evaluate study programs in the field of industrial design during the academic year 2006-2007.

Following the decision of the CHE, the Minister of Education, who serves ex officio as the Chair of the CHE, appointed a committee for the evaluation of academic quality of industrial design studies consisting of:

- **Prof. Rosanne Somerson** Department of Furniture Design, Rhode Island School of Design, U.S.A., Committee Chair
- **Prof. Gabriela Goldschmidt** Faculty of Architecture & Town Planning, Technion – Israel Institute of Technology, Committee Co-Chair
- **Prof. Edward Colker** retired Professor and Provost, Pratt Institute, U.S.A
- **Prof. Haim Finkelstein** Chair of the Department of the Arts, Ben-Gurion University of the Negev
- **Prof. Jan-Christoph Zoels** Senior Partner, Experientia, Italy
- **Ms. Alisa Elon** Coordinator of the committee on behalf of the CHE.

Within the framework of its activity, the committee was requested to submit the following documents to the CHE:

1. A final report for each of the institutions, which would include an evaluation of industrial design study programs, the committee's findings and recommendations.
- 2.1 A general report regarding the status of the evaluated field of study within the Israeli institutions of higher education.
- 2.2 Recommendations for standards in the evaluated field of study.

The committee will submit independently to the CHE the documents specified in point 2 above.

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

The first stage of the quality assessment process consisted of self-evaluation, including the preparation of a self-evaluation report by the institutions under evaluation. This process was conducted in accordance with the CHE's guidelines as specified in the document entitled "*The Self-Evaluation Process: Recommendations and Guidelines*" (December 2006).

Committee Procedures

The Committee held its first meeting on October 23, 2007. At this meeting Committee members discussed fundamental issues concerning Industrial Design study programs in Israel and the quality assessment activity.

During the period December 2007 - January 2008, Committee members conducted a two-day visit to each of the institutions offering study programs in the field under examination.

During these visits, the Committee met with the relevant officials at the institutions in accordance with the structure of each institution, as well as with faculty members, students, and alumni and also conducted a tour of the campus.



This report deals with the **Department of Industrial Design at the Shenkar College of Engineering and Design (Shenkar)**.

The Committee's visit to Shenkar took place on January 9-10, 2008. The schedule of the visit, including the list of participants representing the institution, is attached as *Appendix 2*.

The Committee members thank the management of Shenkar and of the Department of Industrial Design for the self-evaluation report and for their hospitality towards the Committee during its visit.

Evaluation of Department of Industrial Design at the Shenkar College of Engineering and Design

Background The Shenkar College of Engineering and Design was established in 1970 and it was recognized by the CHE as an institution for higher education in 1976. It is located in Ramat Gan.

The Department of Industrial Design, which is one of the six departments that operate within the framework of the Faculty of Design, was accredited by the CHE to grant a B.Des degree in Industrial Design in 2005.

The self-evaluation report submitted by Shenkar states that the student population in 2007 was 2,105, of whom 966 were studying Engineering and 1,139 Design.



Our visit to the Industrial Design Department at Shenkar showcased a strong sense of community and obvious good will among students and staff. We were generously welcomed by the College and well hosted throughout our visit, with open access to any areas that we wished to visit as well as opportunity to meet with a range of constituencies. We were impressed by the overall satisfaction of both students and staff within the Industrial Design Department, and the sense of collaboration and enthusiasm throughout.

Although Shenkar has a long established reputation and a respected history in textiles and fashion, the Industrial Design department is relatively young. Administration expressed that developments in computerization and new materials open up the creation of new jobs in Israel and recognize that advances in design are an important benefit in a culture with little raw material but a leading position in high-technology industries.

We observed, though, that the self-assessment report as a reflection of the process of self-evaluation did not do justice to the actual study program. The Committee felt that the information contained in the report, which seemed vague and contradictory in places, did not best represent the Program. The experience gained at the site visit provided a much richer and fuller experience of the program goals and outcomes. We suggest that this observation be addressed in future assessment activities, as accurate self-assessment is an important component in academic advancement.

Additionally, in several meetings with administrators and teaching staff we continued to ask for a clear description of the unique character of Shenkar's Industrial Design Program and educational objectives. While we heard many contributing factors we never received a clear, consistent description of mission, goals, and the unique characteristics of the Program to support a shared

understanding of these goals and characteristics. Hopefully, through this process of assessment we were able to begin a deeper dialogue that will encourage further development of an educational mission that is supported in the structure and curriculum of the Program.

The College has two Faculties, one in Design and one in Engineering. Unfortunately, there was little evidence of crossover projects between the two Faculties. The Committee sees untapped potential in this arena as an important future consideration. This is one of the unique strengths of the College that has potential for mutual benefit. Additionally, we found frustration that more integration did not occur even within the Faculty of Design itself which functions more like a cluster of individual departments than a full-fledged Faculty. We heard from several different sources that each department operated somewhat like “a small bubble”. Many comments about the desire for more interdisciplinary and elective opportunities were alluded to throughout our visit. Furthermore, Tel Aviv is a dynamic city with tremendous resources for industry involvement, exhibition opportunities, and event participation. Many students cited Shenkar’s location as a significant factor in their choice to attend Shenkar, but the Committee felt that development of greater use of the resources and opportunities of such a dynamic location would further benefit the department. For example, teaching could include greater exhibitions activities in Tel Aviv, more visits to showrooms and to designer’s studios, or more Museum field trips.

Mission and Goals As stated in the Self-Evaluation Report, the mission of the Department of Industrial Design is to promote user-focused design attuned to the latest technological and scientific developments. The Report emphasized a College commitment to training industrial designers who will find their place in industry and will be able to make an impact in the social and individual spheres of life. Meetings with Staff supported this emphasis.

To achieve proficiency in user-focused design, students need not only to develop design skills, but solid understanding of social and cultural domains. Development of communication and marketing abilities is important to expand these areas of focus for students to prepare them to interact with industry and their culture at large. The Program suggests that it places great importance on research that the students engage in so that they can determine user needs. Courses in anthropology and psychology are indicated as needed for understanding the user-product interface. The close proximity to the Engineering Faculty and its facilities is considered as offering a unique opportunity for the students to benefit from exposure to the latest technological advances. Also emphasized is the important component of studies derived from close contacts

with industry. As was frequently stated by staff members, collaboration is not only internal but should also be external.

In view of some aspects of these stated objectives – especially those concerned with the impact of its graduates in the social sphere – the Committee is somewhat surprised by the Program’s almost exclusive emphasis on product design as a primary design focus. The goal of user-centered design education needs to be strengthened by the introduction of qualitative design methods, a greater focus on socio-cultural and contextual dimensions of user needs and desires as well as more exposure to recent design theory and practice, such as those related to service, interaction and systems design. User-centered design requires analytical evaluation, that is often best achieved by access to observation and testing facilities.

We suggest that a rigorous process be implemented to develop a clear and unique program vision that is distinguishable from that of other schools and that is supported by the curriculum and resources. This is a crucial step in enabling the Program to elevate its academic excellence and its credibility within the larger international spectrum of Industrial Design educational programs.

Study Program The study program, as described to the Committee, emphasizes applied research leading to product development for industry. Students are also expected to complete 25% of their studies in Cultural Studies courses. Students are required to complete a large number of courses in the first year in terms of overall credits. As the years of study progress, there are fewer courses, a fact that is reflected in credits achieved. While the goal is to allow students more time to develop advanced level work and eventually a final project, the credit structure inaccurately reflects the workload of particular courses at different levels of study. Furthermore, the student credit requirements are considerably higher than in other Industrial Design programs in Israel and elsewhere. This number should be reevaluated, as students expressed a great deal of frustration about the volume of required courses that precludes the ability to explore subjects as deeply as they would like in certain instances or areas of study. We reflect further on this in the sections on “Students and Learning”.

In general, the current curriculum generated some problems. The students are required to take a huge load of individual courses at the first stages of study. Serious re-evaluation of courses should be undertaken to determine if some subject areas could be folded into studios as integrated components. At this stage, individual subject areas and learning goals are separated. Design theory and skills are best learned when integrated within the work that students undertake, and in the current structure there is too much topical

separation. The result of this approach is a potential for disjointed conceptual development rather than a more holistic kind of academic growth. The origin of this delineated menu of skills as a basis for a curricular structure is unclear, but may relate to teaching abilities or experience. Therefore, a more integrated and contextualized curriculum may require some teaching staff retraining or replacements.

Since the program focuses heavily on “innovation” in industrial design, we question the preponderant emphasis on product design. As a field of study, industrial design has expanded dramatically over the past decade to include a range of study areas that are usually regarded in relation to innovation. These areas of study include foci such as interactivity, service design, usability study, and systems design. These different areas of study benefit from specific types of testing labs and resources, some of which may be available in engineering but were not made evident in our visit. The curriculum and supportive infrastructure need to be broadened further to better represent the breadth of the contemporary industrial design field if the Department is to achieve its quest for innovation.

We suggest an overhaul of the curriculum with better consideration given to integration, and a broader definition of Industrial Design.

Cultural Studies



Alongside the practical level of education, the Self-Evaluation Report places a special emphasis on the need for an extensive cultural dimension in the professional education of the designer. As stated earlier, Cultural Studies take up about 25% of the total load; indeed, the program of studies (as represented on p. 25) cites 26 courses under this heading. The Committee believes that Cultural Studies in this perspective might be a misnomer, since 6 of the courses listed as “Cultural Studies – Mandatory” are, in fact, listed as “professional theoretical” courses such as Anthropology, Introduction to Psychology, Fundamentals of Marketing, Materials, etc. That the last two cited courses are defined as “cultural studies” is quite telling, and, in the Committee’s opinion, this is a reflection of the lack of shared understanding about Cultural Studies between teaching staff from that area and from the ID Department.

The only theoretical courses dealing specifically with design are the three mandatory History of Design courses. The only mandatory Cultural Studies courses are the four History of Art courses. All other Cultural Studies courses are listed as electives, and there is no indication in the Report as to whether these are structured in some form or another in order that they be taken by the students in a manner that develops any kind of meaningful sequence. In meetings with the teaching Staff, the Committee gained additional information

concerning the electives that was not evident in the Self-Evaluation Report. We learned that here are three areas of courses (history, social studies, professional courses) and that students are obliged to choose courses in each area. The Report showed no indication of these areas relative to progress in the Curriculum. It is the Committee's opinion that the Cultural Studies components still represent a dispersed and quite haphazard collection of courses which, while ideally contributing to the student's knowledge and broadening his or her cultural horizons, might also fall flat and remain quite removed from the student's concerns. Indeed, we have heard from the students that, while some courses are interesting and well-taught, there are others that they found to be "boring" and badly taught, and that they felt offered little or no enhancement to their education.

Many comments suggested that not enough courses are interdisciplinary, innovative and fresh. The Committee does not take these observations by students as the sole criteria for evaluating courses; however, it sees a need for bridging a gap that appears to exist between the professional design courses and the cultural ones, as well as from Program goals and courses that are offered. True enough, the framework of Cultural Studies is one that offers a meeting ground for students from the various design departments (that seems nonexistent elsewhere). However, it is the Committee's belief that more theory and cultural courses should address more specifically the needs and interests of the students of Industrial Design, providing a more solid basis for the socio-cultural context underlying their research activities. Interestingly, while Cultural Studies teaching staff expressed active dialogue with design teachers, we heard the opposite opinion from design teaching staff, who felt that there is inadequate communication between the two units. Quality surveys (students' feedback) were not conducted regularly in Cultural Studies courses.

The Committee recommends that Cultural Studies should be improved and the courses diversified and viewed more carefully in terms of their integration and relevance to the changing landscape of design. Systematic students' feedback and evaluation of courses should be implemented, reviewed, and acted upon. Improved dialogue between Design Staff and Cultural Studies Staff should be a background for shaping these improvements.

Faculty and teaching The teaching staff at Shenkar appears to be extremely dedicated, contributing a great deal of time and energy beyond what is expected contractually. The department was described on numerous occasions as "one big family" and the commitment and camaraderie seemed to be genuinely expressed in departmental atmosphere and objectives. Teachers were all practitioners, a fact that helped

students to benefit from the relevance of practice in their field. However, we noted that most teachers were of the same generation, and that because of limited opportunity for new hires there were no junior faculty. Senior teaching staff recognizes this need and expressed its desire to help educate the next generation of teachers. We also noted that there is a worrisome gender imbalance of males to females, particularly problematic because the majority of students are female. Students deserve a broad perspective as well as professional role models.

External teachers are a key component within the Department, yet the pay scale is low and there is little chance for advancement into permanent staff. We were told that externals are paid at 75% pay compared to teachers in frontal lecture classes, which is likely based on mistaken assumptions about required preparation and assessment. If accurate, this pay differential is an unacceptable division that reflects badly on studio teaching, and creates poor morale while undermining professionalism for teachers within the field. Externals add significant value to the depth of the curriculum, yet have little incentive for advancement or recognition beyond individual courses. One external faculty member had initiated and run a successful research program in China that resulted in a course with clear student benefit as well as outcomes that fit the sustainability and social platforms of the department. However, all of the lead work to develop this course appears to have been on the individual's own time, uncompensated. This is problematic and cannot be an acceptable methodology for developing projects in the future. Recognizing the value of such research opportunities, the College needs to find a way to develop incentives that do not conflict with salary protocols. As industry research is generally undertaken with outside sponsorship, these incentives should be built into budgetary structures. Our concern is, that without further incentives, a department that relies heavily on externals may lose its best teachers if conditions are not improved.



Communication between teaching staff seemed very strong. Teachers were available to students well beyond class hours, with some students even visiting teaching staff's own studios for help outside of class time. Studio courses are evaluated through surveys for feedback, with additional feedback sought from graduates of the program. Many students attend final presentations even though not required to do so. Many teachers attend reviews of their colleagues' courses. This helps teachers to have a broad sense of student development as well as awareness of course content in other classes. Teaching staff, including externals, attends meetings at the beginning and end of the year. In these sessions the voices of younger teachers are welcome, and should be encouraged to have impact.

One recent course was described to us that teamed a designer and an historian to co-teach a course on wood culture with a theory and studio component. The

resulting work was exhibited and documented. The administration recognizes that this is a more expensive kind of course to teach, but should be commended for supporting such opportunities. More of these would help to alleviate some of the current problems in the gap between departmental studies with cultural studies described in Study Program section of this report.

Teaching staff members expressed marked interest in gaining access to teaching development resources in order to enhance their teaching skills and effectiveness, as none of them has had any prior teaching preparation. For example, when asked about perceived inconsistencies in syllabi, some responded that they would welcome training in preparing syllabi and other course materials, as resources of this nature are not currently available. The general impression is that these are dedicated individuals with high standards who are willing to educate themselves further to enhance their teaching effectiveness.

To summarize, the Program needs a more diverse faculty, including junior faculty and more women on the staff. Incentives and recognition for adjunct faculty should be developed in order to enhance their commitment to the Department. Pedagogical skills and training should be offered and encouraged.

Research Before the committee comments on its findings concerning research, it would like to make clear that it is aware of, and accepts, a clear distinction between research oriented institutions and teaching institutions. In industrial design, however, applied research and practice-based research are typical key components in developing new designs. Additional forms of practice-based research activity might include research on materials in new applications, on user-centered design issues, or research into trends that reflect cultural and population changes. Students of Industrial Design are required and encouraged to carry out research in these contexts, defined by the gathering of information, related investigations, and experimentation as part of design development, problem solving, and innovation. In this report 'research' is construed in this sense.

The President of Shenkar College of Engineering and Design, expressed his strong interest in collaborations between the different departments of the Faculty of Design with the Faculty of Engineering. The Dean of the Design Faculty and the head of Shenkar's research committee seconded this opinion/vision. Shenkar is not a research university, so research is currently defined as work by undergraduates in their process of studies, often manifested through industry-sponsored projects. Understanding the different status in budgets related to research in various types of higher education institutions, our Committee looked at research that is funded by external industry partners, as well as research

within the field of practice in industrial design that is inherent in new product design and other forms of new industrial design inquiry. Shenkar instituted a research committee to provide seed money and protect intellectual property rights of selected projects. The benefit of this new initiative for students in Industrial Design has not yet manifested into any real applications, but the existence is a positive factor. Communication about the potential for developing and supporting worthy projects with a basis for transferable intellectual property should be initiated.

The ID department has been active in industry-sponsored projects and commercialization efforts through Shenkar's affiliation with Serenissima. Funding income needs to flow back to the participating departments and should encourage the involvement of internal and external teaching staff. Shenkar should better promote and support such research initiatives and activities, as successful undertakings lead to new opportunities.



Industry collaborations are very actively sought within the teaching framework. The ID department's projects with IBM, Keter, HaPe, Shahal and the "Eco-play with Bamboo" project are excellent examples. The facilities such as the Center for Digital Modeling, and the plastics and textile workshops add to the attraction of Shenkar to industry. Nevertheless, dedicated project spaces or facilities are missing. This is a real deficit for enabling evolution of projects over time in any kind of true developmental manner. Interdisciplinary research laboratories could foster Shenkar collaborations across different departments and faculties laying the groundwork for interdisciplinary research projects and for motivating collaboration among teaching staff. These labs could also facilitate multi-semester industry collaborations expanding the current timeframe and enabling iterative research stages.



The Committee understands the limitations of undergraduate research practices, but advises expansion of research to include more in-depth participatory, observational and inquisitive design methods (such as design ethnography, case studies, prototyping, and usability testing). Key will be the integration of analytical and synthetic research practices within a studio environment.

The current research committee should be charged to work with teaching staff and academic leadership to improve research opportunities for the Department of Industrial Design. Creation of joint research facilities with cross-Departmental and cross-Faculty participation could distinguish Shenkar as a unique, industry-oriented resource in Israel.

Students and Learning

The Industrial Design Department practices specialized admission procedures that they have developed over time, based to a large degree on work candidates carry out in situ during the days they spend at Shenkar. As a result only the most suitable candidates are admitted. Their number is deliberately kept low and ensures that each admitted student gets individual attention throughout his or her studies. The intimacy of a small program, as well as the reasonable student/teacher ratios of 15/1 in studios are commendable and should be maintained. Students cited small class sizes as a major factor in choosing to attend Shenkar.



Students in the ID Department appear to be very motivated. A spirit of friendship and collaboration prevails among the students and is also apparent in student-faculty relations. Students receive ample advice from faculty members on an informal basis, and they can turn to the department coordinator for more formal counseling.

As is typical of design departments, the studies are quite intensive and the load is heavy. Although this does not appear to be a major issue, some readjustment of the load distribution would make students' lives a little easier, and would more accurately reflect the work that they are engaged in at each level. One bottleneck, which requires attention, is the inadequate access to workshops, particularly before presentations periods.

One problematic issue that results from the current curricular structure is that students have to manage a number of studios simultaneously, impeding the ability for depth in individual design investigations. The work that we saw was interesting and spirited. However, we noticed a lack of research in the formative stages of concept development as well a lack of resolution at the end stages. Work seemed to be in a first stage rather than resolved in the larger context of realized designs. Fewer studios that allow more depth at each stage of the design process and realization would result in more accomplished work. A sense of intriguing creativity and inventiveness was evident, but the Committee felt that the current packed structure of simultaneous projects has a negative impact on a student's ability to achieve an iterative design process that teaches students how to develop their ideas deeply and manifest them in finished, resolved designs.

Studio structure and the educational goals of such studios appear to be somewhat lacking in rigor. Based on products designed in 2nd and 3rd year studios, (which were presented orally in an exhibit that the students had organized for our visit), functional and human factor aspects of the products did not receive ample attention. While the work reflected some truly exciting ideas and interesting forms, as we questioned the student designers about some unresolved components of the designs, the students seemed unprepared with solutions, suggesting that these works were still in early developmental stages though they were presented as final works. It is commendable that students

are encouraged to define their design directions individually and to experiment broadly. However, this kind of self-directed approach works best when there are rigorous standards for conceptual development, project realization and thorough assessment by teaching staff. Another problematic issue that was brought to the Committee's attention is the fact that a large portion of the 4th year is dedicated to a search for a topic for a final project and that often the crystallizing of initial concepts takes so long that it does not leave enough time for serious project development. This mirrors the concern that organized design developmental schemes may not be taught or achieved by the students in a substantive learned working methodology. Timetables with clear benchmarks should be built into design projects.

The written feedback that students receive in addition to grades is commendable and very helpful. However, not all teachers write meaningful evaluations, thereby decreasing the value of this practice. Guidance for teachers that provides good models for written evaluations would be beneficial for creating better value in assessments across classes.

Shenkar does not build sufficiently on the rich array of design activities within the Design Faculty. All students expressed a wish for much more interdisciplinary educational activity, both in terms of studio projects and workshop access opportunity. To a lesser degree, collaboration with the Engineering departments was seen as a desired development.

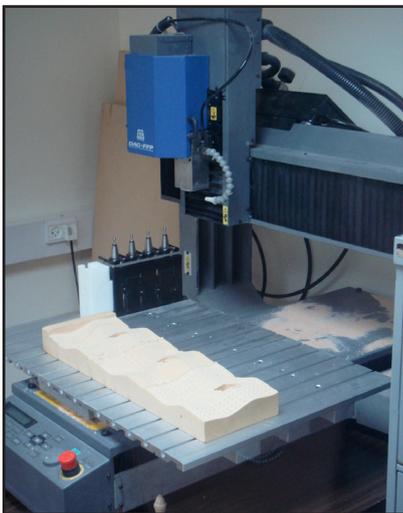
Similarly, students and faculty alike appreciated the value of working in different settings, i.e., as interns and exchange students, in Israel or abroad. However, opportunities appear to be limited and Shenkar does not have a mechanism in place to support students who wish to take part in such programs. No exchange office exists, and students who have successfully navigated through the exchange process have done so through their own efforts entirely. Additionally, scholarships are not available to aid in the increased costs of international study. Students who had been fortunate enough to have an international study experience applauded the enrichment that this added to their academic experience, and described development of a more worldly view that they believe aids in educating better designers for Israeli industries.

In a program that emphasizes work with industry, an extensive internship scheme should be developed and perhaps even required within the course of study. In addition to developing individual student professional experience, a well-developed internship program would have positive implications for later career placement, as well as cultivating potential sponsored research for the College.

Infrastructure and Resources

Our tour of facilities and resources at Shenkar revealed several interesting points. Most workshops/laboratories are quite well equipped. Admirable was the addition of new rapid prototyping and digital 3-D modeling machines placed in adequate, but often crowded, areas. Although the equipment was impressive and fairly comprehensive for different forms of digital interface and output, students still tend to outsource a lot of their digital works to local businesses. When we asked students why, they suggested that the technicians in the digital equipment area were not as easy for them to work with as the outside resources, and that the attitude was not as supportive of their needs. Since we heard this view from only a few students, we would suggest further investigation, and, if it is true, remedying of the problem. If a favorable system is implemented for students to use College resources, the resulting income stream is a good way to offset the high cost of such a facility. Using other vendors is not only a lost revenue stream but also a lost learning opportunity as students are likely less able to be involved hands-on in the process with an outside vendor.

Safety and health rules are said to be clear and enforced; safety supervision and technical assistance from staff are evident and safety procedures were clearly indicated in good signage. Attention should be paid to sawdust collection and ventilation in the workshops. A continuing problem involves the limited use of power tools and heavier equipment during curfew hours dictated by objection to noise levels from residential neighbors. Some congestion in the metal and plastic shops might be alleviated by review and removal of obsolete or under-used machines. There was also a fair amount of clutter and disorganization that impedes efficient workshop use and does not model the best form of workshop practice for students. Planning for a new building (which we were told is underway) may help improve overall space requirements and allocation. However, to be effective, a great deal of input from teachers and technicians should be part of the design process.



The Plastics Engineering facility was a great example of a well-run workshop. It seems to be readily available to students and to be very well supervised. This resource is unique among similar programs in Israel and should be maximized and further integrated in the curriculum. This facility also provides a ripe platform for collaborative projects with Engineering beyond what currently exists, as well as for sponsored external research.



The Library visits and discussion with teachers and students offered a mixed picture. The environment is pleasant, newly acquired volumes and current periodicals are displayed, and staff appears readily available for assistance. There were, however, some conflicting comments about student use of library resources. Budgets seem adequate enough to honor most purchase requests from teachers. Internet or direct computer connection to the library are useful and current. Yet students are not fully at ease with the collection as a

resource, and seem to underutilize this library, suggesting that the collection is not complete enough and that they often use other libraries that have richer collections of art and design books. They seem to read periodicals more than they use books, citing that periodicals and the Internet are “easier”. Few teachers encourage or require search in original texts. Mention by teachers of learning differences such as dyslexia in a high ratio of the student population and students may be an over-used excuse, particularly when support services are available for students with learning differences.

Library staff believes that Industrial Design books are plentiful and current, but some students disagree as mentioned above. Meeting and discussion by the Library Committee could include student class representatives to improve these differing perceptions. Time did not allow for closer review of cataloging and placement of fine art/design/survey texts (there appeared to be some curious groupings). The Librarian reports that shelf space is now full. It cannot be over-emphasized to students and teachers that libraries are not only repositories of books of the past but a resource, in electronics or staff assistance, to keys of contemporary discovery as well.

New academic buildings, much too often, are planned without sufficient participation by staff and students in developing appropriate spaces and facilities. This oversight (almost universal) results in a need to re-order and re-construct remedies to inaccurately conceived space, light, ventilation and amenities. As an example, private spaces for teachers are greatly desired, and should be planned for in a new building as should research project spaces. Structured, fully respected participation by those who use and work creatively in any new facility is urgently recommended.

Summary

There are many positive factors that influence the current status of the Department of Industrial Design – extremely dedicated teaching staff, all practitioners, a general spirit of commitment and camaraderie among teachers and students alike, a desirable location within Israel, well-equipped workshops/laboratories with particularly new rapid prototyping and digital 3-D modeling machines, and small class sizes. That the full potential of the Program is not fully realized may be due to institutional shortcomings as well as to a lack of clear and unique program vision. The obvious benefits of potential collaborations within the Faculty of Design and with the Faculty of Engineering are underdeveloped as are an enriched concentration on elevated industry-sponsored projects. The writing of the Self-Assessment Report as a reflection of the process of self-evaluation appears to the Committee to have been a missed opportunity to evaluate the current state of the Department and to evolve a set of objectives for moving forward relative to mutually understood mission and goals.

A relatively young department within the Faculty of Design, the Department of Industrial Design might have reflected the breadth of the contemporary industrial design field which has expanded dramatically over the past decade to include a range of study areas including interactivity, service design, usability study, and systems design. However, the Program appears to focus heavily on product design; even its professed emphasis on user-centered design needs to be strengthened by the introduction of qualitative design methods and a focus on socio-cultural and contextual dimensions of user need. A curriculum reflecting such aimed-for broadened definition of industrial design would benefit from greater integration of design theory and skills within the studios. The study program should also benefit from the rich array of design activities within the Faculty of Design and the resources and skills available in the Faculty of Engineering. However, the Committee has encountered much frustration over untapped potential of such collaboration as well as over the lack of integration within the Faculty of Design itself. The needed overhaul of the curriculum should also encompass Cultural Studies which, while taking up about 25% of the total load, still presents a dispersed and quite haphazard collection of courses and does not address sufficiently the students' needs and interests or meet the need for integration and relevance to the changing landscape of design.

Much of the indisputable strength of the study program derives from its highly proficient and dedicated teaching staff that is also available to students well beyond class hours. However, most teachers are of the same generation and there is a need for a more diversified faculty, including junior faculty and women. Another matter of concern is the external teachers' low pay scale (the Committee did not check individual pay amounts, but heard this from more than one source) and limited chance for advancement. Without further incentives,

their initiative for furthering research and developing projects might be curtailed, and they might even be lost to other institutions if their conditions are not improved.



Industrial Design at Shenkar benefits from the intimacy of a small program and a low student/teacher ratio, which was emphasized positively by the students. The students also enjoy the spirit of collaboration prevailing in the Department; however, they express a wish that this spirit will extend to the Faculty as a whole, and that there will be more interdisciplinary educational activity, both in terms of studio projects and workshop access opportunity. Another problem concerning educational prospects is the limited opportunity for internship and students' exchange in Israel and abroad; there seems to be a real need for an active exchange office that will aid the students in their efforts to participate in such programs.

Another source of support to the program, one that was not addressed in the Self-Evaluation Report or developed yet in such a young department is that of alumni. They may not yet be in a position to offer major gifts of funds or equipment, but can provide a helping hand to new graduates into the field, as mentors, and to internships and competitions. Our meeting with graduates revealed a great affection and loyalty to the Department and an eagerness to assist in its growth. This possibility should be cultivated as a valuable asset.

Prioritized Action Steps

Though we have attempted to prioritize these suggested areas for improvement, as several of these recommendations need to be acted on with urgency at the same time, we suggest that the following steps be used as a guide for prioritization, but that subsequent steps be initiated even if prior ones are not yet complete. We suggest that 18-24 months be targeted for achieving these changes, and that a three-year progress report with results of these changes indicated be submitted to the CHE.

- 1.** The first step for improving and assessing strategic priorities relies on clarity about the mission, objectives and goals of the program, and mutual understanding about what is unique about Industrial Design at Shenkar. As we were unable to gain a consistent description of the unique character of Shenkar's Industrial Design Program and educational objectives even though we asked repeatedly during our visit, we believe that there is evidence of confusion internally as well. Therefore, the first recommendation is to hold a daylong or even two-day retreat, whereby teaching staff and academic leadership can participate in an intensive series of conversations to clarify mission and build the related program components. This is a vital step to undertake before addressing the other needed changes.
- 2.** The curriculum needs to be reviewed and reconstructed, with better consideration given to integration, and to a broader definition of Industrial Design. Credit allocations need significant adjustment, so that course content and sequencing can aid in developing the deepest learning experience without putting untenable loads on the student and simultaneously watering down individual learning opportunities.
 - 2a.** More structured progression should be built into the studio curriculum, including organized design developmental schemes and timetables with clear benchmarks to strengthen the various stages of design, from conceptualization, to prototyping and testing, to resolution and presentation.
 - 2b.** Cultural Studies should be restructured and the courses diversified and evaluated carefully in terms of their integration, relevance, and teaching quality.
 - 2c.** More inter-departmental courses and other educational activities need to be developed to better use overall College resources.

3. The teaching staff needs to be made more diverse, and should include junior faculty and more women on the staff. Incentives and recognition for adjunct faculty should be created in order to enhance their commitment to the Department. Teacher training for pedagogical skills such as syllabus writing, evaluation procedures (modeling methods for teachers to write substantive feedback and assessments that are productive and helpful to students,) and advising should be created for teaching staff.
4. Research opportunities need to be expanded within the College to better include the Department of Industrial Design. The creation of joint, interdisciplinary research facilities could distinguish Shenkar as a unique, industry-oriented resource in Israel. Designated project space must be created to allow and encourage substantive developmental research projects.
5. Opportunities for internship and student exchanges in Israel and abroad need development and support. A staff position assigned to developing and facilitating these endeavors would go a long way to insure their greater success. Properly managed, this could also be a fund-raising opportunity to entice corporate sponsorships through internships and scholarship funds for international exchange or travel.
6. Student access to digital prototyping equipment and other facilities in the school at large needs to be better facilitated. A solution for the problem involving the limited use of power tools and heavier equipment during curfew hours requires action.

If the above action steps are achieved, The Committee believes that Shenkar will enhance its educational outcomes, and thereby its excellence, in important and measurable ways that will benefit not only students, but also the reputation of the College, and eventually Israeli industry.

Signed by



Prof. Rosanne Somerson

Committee Chair



Prof. Gabriela Goldschmidt

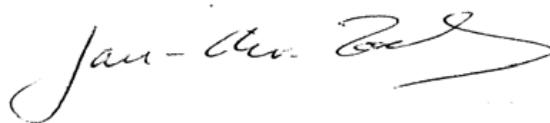
Committee Co-Chair



Prof. Edward Colker



Prof. Haim Finkelstein



Prof. Jan-Christoph Zoels



מדינת ישראל

STATE OF ISRAEL

Minister of Education



October 10, 2007

Professor Rosanne Somerson
Department of Furniture Design
Rhode Island School of Design
Two College Street
Providence, RI 02903
USA

Dear Professor Somerson,

The State of Israel undertook an ambitious project when the Israeli Council for Higher Education (CHE) established a quality assessment and assurance system for Israeli higher education. Its stated goals are: 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. Involvement of world-renowned academicians in this process is essential, particularly as our nation reaches maturity in its 60th year.

This most important initiative reaches out to scientists in the international arena in a national effort to meet the critical challenges that confront the Israeli higher educational system today. The formulation of international evaluation committees represents an opportunity to express our common sense of concern and to assess the current and future status of education in the 21st century and beyond. It also establishes a structure for an ongoing consultative process among scientists around the globe on common academic dilemmas and prospects.

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

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 Academic Quality for Industrial Design Studies.

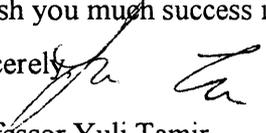
The composition of the Committee will be as follows: Prof. Rosanne Somerson - Chair, Prof. Gabriela Goldschmidt Co-Chair, Prof. Ed Colker, Prof. Haim Finkelstein and Prof. Jan-Cristoph Zoels.

Ms. Alisa Elon will coordinate the Committee's activities.

In your capacity as a member of the Evaluation Committee, you will be requested to function in accordance with the enclosed appendix.

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

Sincerely,


Professor Yuli Tamir
Minister of Education, Culture and Sport
and Chairperson of the Council for Higher Education

Enclosures: Appendix to the Appointment Letter of Evaluation Committees

cc: Ms. Riki Mendelzvaig, Secretary of the Council for Higher Education
ms. Michal Neumann, Head of the Quality Assessment Unit

Appendix to the Letter of Appointment for Evaluation Committees **(Study Programs)**

1. General

On June 3, 2003 the Council for Higher Education (CHE) decided to establish a system for quality assessment and assurance in Israeli higher education. Within this framework, study-programs are to be evaluated every six years and institutions every eight years. The quality assessment system came into effect in the academic year of 2004-2005.

The main objectives of the quality assessment activity are:

- To enhance the quality of higher education in Israel;
- To create an awareness within institutions of higher education in Israel of the importance of quality evaluation and to develop internal self-evaluation mechanisms on a regular basis;
- To provide the public with information regarding the quality of study programs in institutions of higher education throughout Israel;
- To ensure the continued integration of the Israeli system of higher education in the international academic arena.

It is not the CHE's intention to rank the institutions of higher education according to the results of the quality assessment processes. The evaluation committee should refrain from formal comparisons.

2. The Work of the Evaluation Committee

- 2.1 The committee shall hold meetings, as needed, before visiting the institution, in order to evaluate the material received.
- 2.2 The committee shall visit the institution and the academic unit being evaluated – if possible - within 3-4 months of receiving the self-evaluation report. The purpose of the visit is to verify and update the information submitted in the self-evaluation report, clarify matters where necessary, inspect the educational environment and facilities first hand, etc. During the visit, the committee will meet with the heads of the institution, faculty members, students, the administrative staff, and any other persons it considers necessary.
- 2.3 In a meeting at the beginning of the visit, the committee will meet with the heads of the institution (president/rector, dean), the heads of the academic unit and the study-programs, in order to explain the purpose of the visit. At the end of the visit, the committee will summarize its findings, and formulate its recommendations.
- 2.4 The duration of the visits (at least one full day) will be coordinated with the chairperson of the committee.

- 2.5 Following the visit, the committee will write its final report, including its recommendations, which will be delivered to the institution and the academic unit for their response.
- 2.6 In the event that a member of the committee is also a faculty member in an institution being evaluated, he will not take part in discussions regarding that institution.

3. **The Individual Reports**

- 3.1 The final reports of the evaluation committee shall address every institution separately.
- 3.2 The final reports shall include recommendations on topics listed in the guidelines for self-evaluation, such as:
- The goals and aims of the evaluated academic unit and study programs.
 - The study program.
 - The academic staff.
 - The students.
 - The organizational structure.
 - The broader organizational structure (school/faculty) in which the academic unit and study program operate.
 - The infrastructure (both physical and administrative) available to the study program.
 - Internal mechanisms for quality assessment.
 - Other topics to be decided upon by the evaluation committee.

4. **The structure of the reports**

4.1 Part A – General background and an executive summary:

- 4.1.1 General background concerning the evaluation process, the names of the members of the committee, a general description of the institution and the academic unit being assessed, and the committee's work.
- 4.1.2 An executive summary that will include a description of the strengths and weaknesses of the academic unit and program being evaluated.

4.2 Part B – In-depth description of subjects examined:

- 4.2.1 This part will be composed according to the topics examined by the evaluation committee, and based on the self-evaluation report submitted by the institution.
- 4.2.2 For each topic examined the report will present a summary of the findings, the relevant information and analysis.

4.3 Part C – Recommendations:

- 4.3.1 Comprehensive conclusions and recommendations regarding the evaluated academic unit and the study program according to the topics in part B.
- 4.3.2 Recommendations may be classified according to the following categories:
- ***Congratulatory remarks and minimal changes recommended, if any.***
 - ***Desirable changes recommended*** at the institution's convenience and follow-up in the next cycle of evaluations.
 - ***Important/needed changes requested for ensuring appropriate academic quality*** within a reasonable time, in coordination with the institution (1-3 years)

- *Essential and urgent changes required, on which continued authorization will be contingent* (immediately or up to one year).
- *A combination of any of the above.*

4.4 Part D - Appendices:

The appendices shall contain the committee's letter of appointment and the schedule of the on-site visit.

5. The General report

In addition to the individual reports concerning each study program, the committee shall submit to the CHE the following documents:

- 5.1 A general report regarding the status of the evaluated field of study within the Israeli institutions of higher education.
- 5.2 Recommendations for standards in the evaluated field of study.

We urge the committee to list clearly its specific recommendations regarding each one of the topics, to ease the eventual monitoring of their implementation (both in the individual reports and in the general report).



Industrial Design – tentative schedule of site visit

First day (9/1/08)

Time	Subject	Participants
09:00-09:30	Opening session with the heads of the institution and the senior staff member appointed to deal with quality	Prof. Amotz Weinberg, Shenkar President Prof. Reuven Karni, Quality Coordinator Mr. Moshe Sayag (M.A) Sayag, Head, Academic Administration Prof. Jacob Gargir, Dean of Student
09:30-10:00	Meeting with the academic and administrative heads of the department	Prof. Yarom Vardimon, Dean, Faculty of Design
10:00-10:30	Meeting with the academic and administrative heads of the department	Mr. Alex Padwa (M.A), Head, Industrial Design
10:30-12:30	Meeting with representatives of relevant committees *	<i>Shenkar Senior Appointments Committee</i> Prof. Samuel Kenig, Dean, Faculty of Engineering <i>Industrial Design Curriculum Committee</i> Mr. Barak Asher (B.Des), Senior Faculty, Industrial Design Mr. Yoav Ziv (M.A), Senior Faculty, Industrial Design Mr. Pinhas Leibowitz, Senior Faculty, Industrial Design <i>Shenkar Library Committee</i> Prof. Micha Levin, Head of History and Theory Studies, Faculty of Design. Ms. Paula Ostfeld (M.A), Library Director <i>Shenkar Senior Research Committee</i> Prof. Joseph Shappir, Head, Shenkar Research Authority. Prof. Reuven Karni, Quality Coordinator <i>Final Project Committee</i> Mr. Yoav Ziv (M.A), Senior Faculty, Industrial Design
12:30-13:15	Lunch	Faculty members and students for an informal discussion with committee members over lunch. Lecturers: Merav Peretz (B.Des), Sahar Batzri (B.Des) & Amir Lipsiks (B.Des). Student: Nir Zigel, Hadas Arnon & Yiloz Ofir.
13:15-14:15	Tour of campus (Including classes, workshops, studios, exhibition space, library, offices of faculty members, computer labs etc.)	4 th floor Tour of Industrial Design Department with Yoav Ziv & Barak Asher (Senior Staff)
14:15-15:00	Closed-door working meeting of the evaluation committee	Committee Room, 5 th Floor



Second day (10.01.08)

Time	Subject	Participants
09:00-09:45	Meeting with senior academic staff*	Mr. Pinhas Leibovits, Senior Faculty, Industrial Design Mr. Barak Asher (B.Des), Senior Faculty, Industrial Design Mr, Yoav Ziv (M.A), Senior Faculty, Industrial Design
09:45-10:30	Meettint with academic studies faculty	Prof. Micha Levin, Head of History and Theory Studies, Faculty of Design. Ms. Lea Perez - Head of Fashion design dept. Dr. Heilbronner Oded Dr. Zafran Gani Vered Ms. Aldobi Hava Mr. Freid Eyal
10:30-11:15	Meeting with adjunct lecturers*	Amir Lipsiks (B.Des), Sahar Batzri (B.Des), Daniel Leibowitz (B.Des), Eshet Asaf (B. Des), Reches Yoav
11:15-12:15	Presentation of projects by students**	6 students (including graduates) will present their projects (5 minutes presentation time per student) followed by a short (5 min) discussion by the other students: Nir Zigel, Hadas Arnon, Segal Ido, From Ron (Faculty may participate in this session but is not required to do so.)
12:15-13:15	Meeting with students* **	Up to 12 students from a mix level of the study program: 2 th year: Emi Shenkelbach, Zinger Nadya, Golan Maya 3 th year: Oron Ohaion, Nir Zigel, From Ron, Itay Amir 4 th year: David Rozenberg, Moran Elhalal, Ofir Yiloz & Hadas Arnon
13:15-14:00	Lunch	6 graduates of the program for an informal discussion with committee members over lunch Shani Izhar; Alsberg Keren, Arazi Keren, Nener Nil, Ben- Natan David
14:00-14:30	Closed-door working meeting of the evaluation committee	Committee Room, 5 th Floor
14:30-15:00	Summation meeting with heads of the institution and of the department	Prof. Amotz Weinberg, Shenkar President Mr. Alex Padwa (M.A), Head, Industrial Design Prof. Yarom Vardimon, Dean, Faculty of Design