

Architecture and Planning Journal (APJ)

Volume 23 Issue 2
SPECIAL ISSUE
RETHINKING ARCHITECTURAL EDUCATION
2016 - TOWARDS A BETTER PRACTICE

Article 4

ISSN: 2789-8547

March 2016

PROBLEMS OF DESIGN JURIES IN SCHOOLS OF ARCHITECTURE

Lamis Kanso

Master Student, Faculty of Architectural Engineering, Beirut Arab University, Lebanon, Kansolamis@yahoo.com

Maged Alyyoussef

Assistant Professor, Ataturk University, Erzurum, Turkey, m.nabilyoussef@bau.edu.lb

Follow this and additional works at: <https://digitalcommons.bau.edu.lb/apj>



Part of the [Architecture Commons](#), [Arts and Humanities Commons](#), [Education Commons](#), and the [Engineering Commons](#)

Recommended Citation

Kanso, Lamis and Alyyoussef, Maged (2016) "PROBLEMS OF DESIGN JURIES IN SCHOOLS OF ARCHITECTURE," *Architecture and Planning Journal (APJ)*: Vol. 23: Iss. 2, Article 4.

DOI: <https://doi.org/10.54729/2789-8547.1073>

PROBLEMS OF DESIGN JURIES IN SCHOOLS OF ARCHITECTURE

Abstract

Throughout the last few decades, the architectural design education has passed many phases of critique and evaluation development. The process of critique continues in the different stages of design, starting from choosing the site, until the final submission. The jury committees are often held at the final stage in order to evaluate the architectural product. Although there are specific methods to systemize the process of evaluation, but unfortunately some academic members in jury committees do not apply these methods, which results in negative judgments on student's project, and that could generate a feeling of dissatisfaction. This paper, therefore, aims to reach the maximum fairness in evaluation process through following a clear and discipline criteria. Two case studies will be examined in the juries of graduation project in two different schools of architecture; one in Lebanon and the other one in Egypt. Through analyzing the methods of evaluating projects in both case studies, the paper can reach the required ideal criteria that can be followed later on.

Keywords

Architecture, Design Jury, Evaluation, Criticism

PROBLEMS OF DESIGN JURIES IN SCHOOLS OF ARCHITECTURE

L. KANSO¹, M. YOUSSEF²

ABSTRACT

Throughout the last few decades, the architectural design education has passed many phases of critique and evaluation development. The process of critique continues in the different stages of design, starting from choosing the site, until the final submission. The jury committees are often held at the final stage in order to evaluate the architectural product. Although there are specific methods to systemize the process of evaluation, but unfortunately some academic members in jury committees do not apply these methods, which results in negative judgments on student's project, and that could generate a feeling of dissatisfaction. This paper, therefore, aims to reach the maximum fairness in evaluation process through following a clear and discipline criteria. Two case studies will be examined in the juries of graduation project in two different schools of architecture; one in Lebanon and the other one in Egypt. Through analyzing the methods of evaluating projects in both case studies, the paper can reach the required ideal criteria that can be followed later on.

KEYWORDS

Architecture, Design Jury, Evaluation, Criticism

1. INTRODUCTION

Perhaps the method of jury testing is one of the hardest methods of criticism and evaluation, in terms of the way it is done, the reasons behind and the right timing. These aspects contribute to form a set of structure elements in order to form a jury phase in which the student is tested verbally through a defined timeframe and scope of evaluation. However, such sensitive process requires a clear method of work to assure fair results. Nevertheless, the lack of international methods required to be applied in juries, is the main problem in determining whether the student has been qualified to succeed this stage of assessment. Furthermore, the intention of this is to seek a system in which we can put a standard approach to enter a jury and evaluate upon. Perhaps, problems of design juries are widely spread but differently dealt with according to the education and cultural background of several societies and curriculums. Problems differ; diversity of jury members' backgrounds causes a conflict in design evaluation, also not giving the student his right in expressing his project, adding the issue of over grading that could happen due to subjective issues. Moreover, the jury doesn't depend on clear criteria of evaluation which results in dissatisfaction from student towards the system, not to forget the several cases which lack the appropriate space requirement for exhibition the projects. This research hypothesis deals with applying clear evaluation criteria that can achieve an appropriate satisfaction for both jury members and students. Design critics in juries depend on personal experience from their own education and intuition and everyone approaches the students according to personal criteria which may at some times create a conflict between jury members.

¹LAMIS MOHAMAD ALI KANSO

Master Student, Faculty of Architectural Engineering, Beirut Arab University, Lebanon
Kansolamis@yahoo.com

²MAGED NABEEL ALYYOUSSEF

Assistant Professor, Faculty of Architectural Engineering, Beirut Arab University, Lebanon
M.nabilyoussef@bau.edu.lb

In other words, an examination through a jury practice could come up with an interpretation of how it is done, why is it done with this specific way, and when as in time means according to different years of education. Analyzing a scene in every year, total 5 scenes, will surely put us on a track of cons and pros to whether jury practice has been practiced according to a criteria of evaluation. Besides, this interpretation can set a record of main points to evaluate upon such as keeping a graph table showing the progress of the students, showing all phases of design developments, and applying the ASK 'attitude, skills, and knowledge' a method developed by Bakarman. (Bakarman, 2011)

This line of approach puts responsibility on both students and critics. First, in a way where a student should be taking dependability throughout the whole design process to assure an upwards graph line, in addition to a constant development of design solving problems to guarantee a file with full progress documents, and last have the ASK blend which will move him smoothly through the criticism process in order to come up with a qualitative result. Second, the critic should be handed the first two tools, graph and file, revise the aim of the design and start testing the skills, knowledge and attitude of a student. (Sobhy,2015)

“ If you heard the terms ‘jury’ and ‘crit’ for the first time you’d probably presume, quite understandably, that they described something negative –maybe even something downright unpleasant. ‘Is a jury going to put you on trial?’ Is a crit simply criticizing? These terms don’t imply that there is a positive side to the review process. But there is! The review has great potential as a learning experience and this is the reason that it is a firmly established part of most architecture courses.” (Doidge,2007)

2. IDENTIFYING THE ROLE OF DESIGN JURY

Several terms guide this study and draw the track in which we are supposed to highlight while tackling this issue. They will be defined briefly in terms of architectural education to make certain all subjects are clear while analyzing. Frank Lloyd Wright explains that architecture is life taking form; it is a record of time. He adds up clarifying that architecture is a direct factor affected by humankind, thus it evolves with every change.(Wright,2015)

Generally, this seems to be architecture, but inside this world, there are several aspects such as design jury, and in the core of this practice lies criticism and evaluation. Design jury, it is a practice where every student submits his ideas and projects in front of jury members usually experts and sometimes few classmates maybe present. They may all contribute, and start asking questions and present critiques, but with an opportunity for student to defend and discuss his approach or way of thinking through the solutions he presented.(Nelson,2012)

We mentioned that, the core of the jury, which symbolizes in evaluation and criticism. Evaluation in design juries, is a way of assessment in which the examiner follows a method either by numbers or letters (70,80,90.....or A,B,C....).And upon that, he specifies the criteria of evaluation, or else huge differences would be present if several examiners evaluated the same project for example. And this would be a result of variation in personal experience. Scores often are basic tools of evaluation, especially when they are combined to result in an average.(Salder,2005)

Regarding Criticism, in architectural education and evaluation, it is the collection of different approaches that tutors use to express their knowledge to their students, for example, arranging a special gathering as in desk crit, or even group discussions. Some define their criticism sessions in a way where they select a certain type of submission, as in approaches, problem solving, or even special deliverables.(Oh,2015)

Goldberger mentions that critiques must take a step back and think about the pros and cons of architecture. He describes the critique as the predictor guiding people to evaluate architecture for its value not for its embellishments, thus creating a sequence of criticism in order to understand all factors that affect architecture and empower it.(Quirk,2012)

3. CHARACTERS OF JURY MEMBERS

Jury members differ from backgrounds, social and cultural raising, educational stages, and way of thinking. But everyone has his own fingerprint, yet they can be bunched up into categories. Such as; logical, factual, constructive, destructive, practical, theoretical, practical, religious, radical, or even liberal, etc...but however the category changes, a member should always have special characteristics to ensure his presence will be an added value to the absence of bias, such as; experience, knowledge, readings, interaction, judicious, sensibility, tasteful, listener, and tolerant.

4. TIME AND DURATION OF JURY

Design juries usually take place in the middle or the end of the project, depending on many factors that are usually assigned by tutors. But the most important juries are the final ones, which in terms of criticism, cover everything and wrap the project with an overview look. That's why the coming case studies were chosen in final juries in order to tackle the point of evaluation since the latter one has the huge load of assessment. As for the duration, the student here is asked to present his work at the beginning of a jury with specified time decided by the members or the faculty depending on the type and scale of the project. Usually this time varies from 10 to 20 minutes, generally uninterrupted by any member of the jury, until the official time ends up and that's where the start of a debate begins. Through this stage, every student will try to explain the aim of his project. At the same time, jury members will be listening. Sarcastically, Bob Borson describes this scene as the following; student as the victim, professor as the one who has the grade and your future in the palm of his hands, and adds up that if the stress wasn't enough to put you in pressure, there might be outsiders as jury members as guests sitting in the room as well. (Borson, 2015)

This is typically what every student feels like whenever he enters a jury throughout his years of education.

5. PROPRIETIES OF EXHIBITION AREA

Spaces of exhibiting design projects in schools of architecture have a direct effect on the whole process of the jury; from their mood, to their first impression. Throughout the years of jury experience, area of exhibition changed according to the needs and the tools available, yet all concluded a solid base of properties to ensure a healthy space for displaying the architectural product. Solid base includes; vast spaces, obvious areas of display, natural and plenty of daylight, effective ventilation, standardization within the exhibition, unification of; scales, presentation styles, type of boards, types of paper, and tools of suspension.



Fig. 1 Three shots captured for the graduation project jury in AIUB, American International University, Bangladesh, 2012. The shots present the exhibition area of projects lighted by plenty of daylight, and provided space for exhibiting 3d models.

Reference: <http://www.aiub.edu/> accessed January 17, 2016

6. OVERVIEW ON DESIGN JURY

The modern jury evolved out of the ancient custom of many ancient Germanic tribes whereby a group of men of good character was used to judge the accused. Juries, usually 6 or 12 men, were an "ancient institution" even then in some parts of England. (Holdsworth, 1926)

Juries have been firmly in place for over a century as the predominant method used to evaluate students' performance in design studio courses. Although they may be called "reviews" or "critiques", with few exceptions, the format of design juries is remarkably similar in just about every design school in the English speaking world. Students present their completed design work one by one in front of a group of faculty, visiting professionals, their classmates, and interested passerby. Faculty and critics publicly critique each project spontaneously, and students are asked to defend their work. (Anthony, 2012)

7. CONCLUDED MEASURABLE ELEMENTS OF ANALYSIS

Based on the preceding, the research may conclude measurable elements, shown in table 1, which can be used in analyzing the case studies.

Table 1. Measurable Elements of Analysis
Reference: Designed by the authors

Measurable Elements of Analysis						
Case Description	Type of Projects	Type of Presentation	Dress Code	Student Selection and Distribution	Evaluation and Criticism	System of Grading

8. EXPERIENCING TWO CASE STUDIES

Two case studies will be conducted in this part shedding the light on all aspects of the scene in order to evaluate the whole process and thus interpret missing points and judgments.

8.1 Case Study 1: Graduation Project Jury in the Department of Architecture, Faculty of Engineering, Ain-Shams University, Cairo, Egypt



Date: July, 2003
Duration of Jury: from 9:00 am to 5.00 pm

8.1.1 Case Description

Starting from day one in the Fall Semester of B.Sc. year, students studied a course titled 'Project Studies & Technical Report'. This course was considered an essential brief phase for the graduation project. It introduced the student with different techniques for preparing technical report analysis of collected data and concluded the architectural program for different architectural components. Different studies for functional aspects, Ecological and different architectural styles for similar architectural projects were to be argued and compared with similar architectural projects. Each student submitted, by the end of this course, a final report concerning the site and ecological analysis of his/her project within a comparative study with different and similar projects, which led to student's final architectural program. (Ain Shams, 2003)

Some advanced students ended their reports with conceptual sketches and initial site plan drawings. In the Spring Semester, students undertook the course of 'Graduation Project'. The students dealt with the analysis and design of a complete engineering system using the fundamentals, principles and skills they gained during their whole

architectural study. Students' projects included the schematic drawings, details of analysis, and design satisfying the concerned code requirements, computer applications as well as the experimental work when necessary, in addition to the technical engineering drawing of design. (Ain Shams, 2003)



Fig. 2 Two shots captured for the graduation project at Ain Shams, Egypt, 2003. The shots present the exhibition area of projects and provided space for exhibiting.

Reference: Ain Shams University

8.1.2 Type of Projects

In this year, the department decided to open the scope for students to choose any project but under an umbrella of 'Cultural Development', with maximum site area of 6 acres. Branches of 'Cultural Development' were various to serve youths, children, disabled, scientists, artists, athletics, historians, archeologists, scouts, architects, and so on. According to intentions and preferences, each student undertook a specific track trying to solve a problem in the Egyptian society with an unprecedented treatment. Throughout their design approaches, students were distributed into two sectors; the first preferred to solve traditional problems with bold ideas from outside the box; while the second adopted new issues and innovated in its presentation.

8.1.3 Type of Presentation

Throughout two weeks, students were forced to upload their wooden boards with complete drawings, sketches, and perspectives in the design-studio under supervision of teaching assistants. That was a guarantee that each student was the one who drew by him/herself. The external support from colleagues was allowable but in very tight limitations. The department gave a limited number of boards for each student, minimum was 6 and maximum was 8. The size of a single wooden board was 1 m². In the final day of this period, exactly from 8.00 pm to 10.00 pm, students were asked to hang their projects according to their alphabetical order. By the assistance of a technician, each student was asked to connect his/her boards together in one combination using bolts and pins. Each single project, therefore, was like a train, very heavy and difficult to be handled. Physical models were not obligatory. Note: The projects were submitted and hung three days before holding the jury.

8.1.4 Dress Code

Days before the jury, instructions were given to students to wear formal costumes. Therefore they showed up dressing formally but not all the same.

8.1.5 Student Selection and Distribution

Total number of students was 108 divided on four sections; each section consisted of 27 students. To achieve fairness and equal circumstances, the department held the final exam jury at the same day for all students. The oral exam was separated into three phases:

The first phase took three hours (from 9.00 am to 12.00 pm) examining sections in parallel. In this phase, each section was examined by its main supervisor. The jury of each student took around 6 minutes; (4 minutes oral presentation by student and 2 minutes comments said by the supervisor).

The second phase took three hours (from 12.00 pm to 3.00 pm) examining sections again in parallel but this time the examiners were internal committees. Members of these committees did not teach the course of 'Graduation Project' and they were all professors. Duration of oral presentations held in this phase was equal to the first phase.

The third phase took two hours (from 3.00 pm to 5.00 pm) examining only five remarkable projects from each section. This time, the examiners were external committees coming from outside the faculty. Over two hours, the jury of each student took around 24 minutes; (15 minutes oral presentation by the student and 9 minutes comments said by the external examiner). In this phase, the selected students defended their projects through their sketches, models, reports, documents, and detailed analysis. That because the external examiners recognized these projects for the first time.

8.1.6 Evaluation and Criticism

Each student introduced his/her project starting by defining the main keyword, identifying problem and aims. Then, student clarified the conceptual idea that the design was based on and how it was abstracted into a tangible form. Through this clarification, depth and philosophy of design idea expressed for how far each student comprehended his/her project. In a quick presentation, each student explained how the concept appeared in the drawings. Some students preferred to introduce their projects through focusing on the construction system they used due to their structural concept, while others directed to introduce their projects through environmental approach. Jury members listened carefully to students. Supervisors and the examining committees concentrated in their evaluation on: Importance of project's cause, depth of design idea, clarity of concept, power of image, appropriateness of construction system, technology, right solving for functions and circulation, aesthetics of form, and the oral presentation which disclosed student's character and intention. Unfortunately, few examiners, who belonged to traditional schools of architectural thought, used the destructive criticism for specific projects that adopted unusual ideas. The motive behind this attack; students preferred to concern more about concept and form than achieving successful functions.

8.1.7 System of Grading

After this long day, faculty members who were responsible for 'Graduation Project' recorded marks of the three phases taking the average mark. Ain Shams University followed and still follows a certain system in announcing the final result. Departments in the Faculty of Engineering keep hiding students' grades, especially for 'Graduation Project' and surprisingly announce the final result in an unknown day after ending the Spring Semester by three or four weeks.

8.2 Case Study 2:

Graduation Project Jury in the Faculty of Architectural Engineering, Beirut Arab University, Debbieh, Lebanon

Date: June 7, 8, and 9, 2008

Duration of Jury: from 9:00 am to 5.00 pm



جامعة بيروت العربية
BEIRUT ARAB UNIVERSITY

8.2.1 Case description

Every Student has been getting ready for this project since his fourth year. The whole year students took a course back when they were fourth year students, this course

teaches them how to select their graduation project and its site. In addition to that, they conducted a research for their selection and came up with an analysis to the site, plus a complete architectural program for their selected project. This so called booklet or research, is handed to the jury papers as an introduction for the project they are going to evaluate and criticize. Therefore, it must be known that this booklet is the title of every student's project and thus it should be taken care of in every single detail.

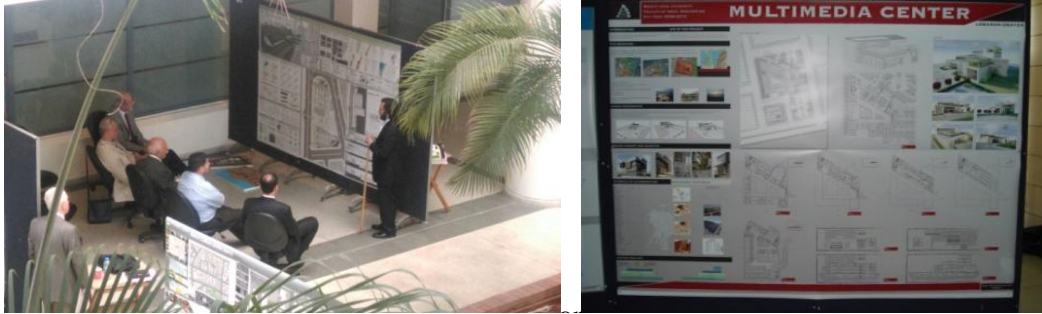


Fig. 3 Two shots captured for the graduation project jury at BAU, Beirut Arab University, Lebanon, 2008. The shots present the exhibition area of projects lighted by plenty of daylight, and provided space for exhibiting.

Reference: BAU graduated students

8.2.2 Type of Projects

All students have different types of project such as; airport, conventional center, themed museum, prison, themed school, themed residential project, specified faculties with all facilities, hotels, theaters....etc.

8.2.3 Type of Presentation

Students were asked to pin up their work a day before their jury date. They came to find their names alphabetically mentioned on stickers pinned up to different panels. They were already asked to present their work on multiples of A0 and a maximum number of 6 A0 posters, printed as they wish. Every student must put his final model by his project. They are asked to show at the jury location alone, in other words discussion are not be done in groups and no students are allowed to share the jury. The jury session is considered formal and not a casual crit. In the end, it is a graduation Project. The student is free to talk about his work as in verbal presentation and lead the members through his project visually either through his posters or model.

8.2.4 Dress Code

There is no specific dress code for this occasion that students were asked to show up with. But on the other hand, general guidelines were given to them such as dressing formally and up to the jury that will decide where they stand the other day. Therefore students showed up dressing formally but not all the same, for example men ranged from suits to formal pants and chemise, while ladies outfits ranged from skirts to pants, all formal.

8.2.5 Student Selection and Distribution

The fifth year students are total of 66 students. Due to the difficulty of meeting all of them in one day, they were divided into 3 groups of 23 each, distributed by 3 days. Each day 23 students show up according to their listed name with respect to the date of the jury. Students are called by name in order to present their projects for the jury.

8.2.6 Evaluation and Criticism

Each student had the chance to present his/her project within 20 to 40 minutes. The first 10 minutes are for the student's chance to present and elaborate his/her work, while the rest of the time is taken for criticism and further clarifications between the jury members and the student. Critics may be shared with the student or during the In-Jury meeting and the final meeting. The jury had 12 members; differing from architects to deans and fine arts tutors from peer colleagues, and also head figures from the field of practice. 6 out of 12 were out of the university staff members, and the rest were within the faculty. Adding to that, tutors from fifth year were allowed to attend the jury, but as silent observers. The jury has several meeting within this stage, divided into 3 parts; the first meeting, the In-Jury meeting and the final meeting.

The first meeting is done with the Dean of the faculty and tutors or professors of the fifth year stage, where an introduction of the case is presented, several criteria of evaluation has been mentioned to take into consideration, and a list of student names is handed to every member. The In-Jury meeting takes place while the jury is evaluating the student. After almost every student finishing and leaving the jury, members show their rosters and negotiate the level of student profession and moderate their individual marks. The final meeting is done at the end of the day. Negotiations, evaluation and criticism takes place and at the end an average of all the grades put by jury members is finalized. And this is to be considered the jury grade.



8.2.7 System of Grading

This final stage holds the whole process, it is more formal, and this is why it can be the most nerve-wracking stage, particularly if you know that your work is being marked. A few days later a sheet is pinned up showing only the result of the student as in "Pass" or "Fail" with rankings. (Abdel Salam, 2015)

9. COMPARISON BETWEEN THE TWO CASE STUDIES

The shown table presents the differences and common features in the both case studies.

Table 2. Comparison Table
Reference: Designed by the authors

Elements of Analysis	Ain Shams University-2003-Egypt	Beirut Arab University-2008-Lebanon
Photos of graduation project jury		
1. Case Description	Graduation Project; continuity of a preparation course for the whole analysis.	Graduation Project; continuity of a preparation course for the whole analysis and program.
2. Type of projects	Under the umbrella of "Cultural Development"	Free Choice with the condition of the tutors' acceptance
3. Type of presentation	On wooden boards 1m2 each, minimum 6 and maximum 8. No models' obligation	On wooden boards, multiples of A0. Models' Obligation
4. Dress Code	Formal, but not specific	Formal, but not specific

5.Student Selection and Distribution	Distributed into 4 parts, 27 each. Evaluated into 3 phases, first by internal examiners, second by external examiners, and third by both but only for selected projects	Distributed into 3 parts, 23 each. Evaluated once within a jury containing internal and external examiners, fifth year tutors as silent observers.
6.Evaluation and Criticism	Students focusing on keywords, aims and problems. Examiners critiquing on focal points and using several critique methods.	Students focusing on points they choose in their project in order to achieve free expression. Examiners critiquing on focal points using several methods, within the in-jury meeting.
7.System of Grading	Final grades are the average of the 3 phases of evaluation. After 3 or 4 weeks, grades are revealed in an unknown day surprisingly and without prior notice.	Grades are finalized within the final meeting. Few days later results are pinned up as “fail” and “pass”.

10. CONCLUSIONS

The research may reach a group of conclusions as follows:

- a. Using the high technology in presenting projects such as screen on mobile stands.
- b. Multimedia became an important tool bringing the project to a clarification stage
- c. Advanced technology can be used in presenting 3D models with the drawings as 'holograms' and 'Augmented Reality'.
- d. Jury members are recommended to be from different fields of interest to evaluate the design criteria covering all aspects; each one related to his/her experience.
- e. Course instructor should attend the jury for further clarifications and following up students.
- f. Exhibit the project in a wide space well lighted and ventilated
- g. One of the important conclusions; despite the qualitative criticism that have been used in jury committees due to the diversity in members' backgrounds, an evaluation criteria should be announced clearly for students, jury members, and institution.
- h. This paper suggests certain criteria in evaluating design projects as follows:
 - Body of Knowledge
 - Design Process
 - Concept
 - Creativity
 - Structural System
 - Integration with Technology
 - Function and Circulation
 - Form
 - Site Context
 - Study Model
 - Communication Methods/Presentation

Each criterion may be evaluated by grading system of (a: excellent, b: very good, c: good, d: fair, f: fail)

REFERENCES

- Ain Shams University. (2003). Regulations of the Faculty of Engineering. <http://eng.asu.edu.eg/english/>.
- Anthony, K. H. (2012). *Design juries on Trial*. 20th Anniversary Edition, the Renaissance of the Design studies. p.280.
- Bakarman, A.A. (2011). Attitude, Skill and Knowledge: (ASK) a New Model for Design Education. *College of Architecture and Planning at King Saud University*, 7p. file:///C:/Users/addmin/Downloads/3894-6833-1-PB%20(1).pdf.
- Borson, B. (2015). *How to Survive Architectural School Juries*. <http://www.lifeofanarchitect.com/how-to-survive-architectural-school-juries/>

- Doidge, C. Sara, R. Parnell, R. (2007) *The Crit, An Architecture Student Handbook*. London: Routledge.
- Holdsworth, W.S. (1926). *A History of English Law*. Boston: Little Brown. 228p.
- Nelson, S. *The Jury System*. (2012). <http://www.aperiointernational.com/the-jury-system/>(18/10/2015).
- Oh, Y. (2010) *Toward A Theory of Design Critiquing- The Furniture Design Critic Program*. Doctor of Philosophy. Computational Design. Carnegie Mellon University. https://www.cmu.edu/architecture/admittedstudents/phd_dissertation_pdfs/2010_phdcd_oh_yeonjoo.pdf (21/10/2015).
- Oxford Dictionary, <http://www.oxforddictionaries.com/definition/english/architecture>. (18/10/2015).
- *Personal Interview with Prof. Mohammad Sobhy about Architecture and Education* (October 2015) in Beirut Arab University, Debbieh Campus.
- *Personal Interview with Prof. Hassan Abdel Salam, Former Dean of Faculty of Architectural Engineering at BAU, about Case Study 2* (November 2015) in Beirut Arab University, Debbieh Campus.
- Quirk, V. (2012). *Architectural Criticism in the Age of Twitter/Paul Goldberger*. <http://www.archdaily.com/298276/architectural-criticism-in-the-age-of-twitter-paul-goldberger/>(20/10/2015).
- Sadler, D.R. (2005). *Interpretations of criteria-based assessment and grading in higher education*. *Assessment Educ. Hig. Educ.*, 30: 175-193.
- Wright, F.L. *Video about Architecture, From in the Realm of Ideas*. <http://architecture.about.com/od/ideasapproaches/g/architecture.htm> (November 2015).