

ARCHITECTURAL EDUCATION IN AFGHANISTAN: EVOLUTION, CHALLENGES AND OPPORTUNITIES

Abdul Wasay Najimi

Abstract

As a component in higher education in Afghanistan, educating architects to steer the country's conservation and planning of built environment is crucially needed. To raise the technical capacity for professionals working in built environment related fields in Afghan cities, higher education in architecture commenced at Kabul University (KU) with support from USAID in 1968 and the first group of Afghan academic architects graduated in 1973. Despite having a good standard, ten years later as part of the Engineering Faculty, the Department of Architecture degraded when the Soviet backed regime looked at it objectionably after 1979. Supported by the former USSR, the Kabul Polytechnic Institute (KPI) as a favorite alternative school initiated architectural education in 1980. This paper studies the process of educating architects in Afghanistan from the pre-war era and up to now. Limitations and opportunities in view of educating young architects for current and future conservation activities and development of the Built Environment in Afghanistan are examined.

Keywords

Afghanistan, architecture, architectural education, built environment, higher education.

Introduction

Construction sector has been the major labor-intensive employment opportunities in Afghanistan, in view of the fast transformation of the built environment in cities and the uncontrolled expansion of the urban area through the past ten years. This has attracted young students into civil engineering education available in the major cities. Architecture is not much known to the pre-university students; nor do they have much awareness about the built environment issues exist. Only Kabul University (KU) and Kabul Polytechnic University (KPU) offer five years architecture programs and have some 340 students. Still, the architecture departments operate under the engineering colleges. Teachers are mostly young and few are exposed to similar studies abroad. Research and publication is rare. Resources are limited and the supporting management is poor. However, all admit that qualified architects and planners are much needed.

The Beginning

To bring about a planned built environment in cities of Afghanistan, the first construction code

was drafted by help of European engineers in 1920s, when plan for a new city of Kabul was initiated. During 1930s-40s a craft school trained young students in various branches of construction: design and detail drawings, estimation and supervision of construction site and craftsmanship. Such training was at a high school level. KU was established in 1932 (Kabul University, 2011), but education in architecture started in 1968, supported by USAID (Najimi, 2007; Layon, 2010). After the cycle of five years training the graduates earned a B.Sc. Arch degree. Among the first graduates in 1972-3, M. Sarwar Azad and Bashir A. Kazimee were hired as teachers. Kazimee is Professor at the Washington State University, Pullman WA and author to many publications in architecture. (Kazimee, 2008).

While in Europe and USA "traditionally a school of architecture was preparing for the profession of a self-employed architect, being legally reliable for his or her projects" (Neuckermans, 2001), in Afghanistan the school of architecture was preparing architects to work for the government. Many architects also had secondary jobs in consultancy offices in the evenings and designed reasonable buildings.

Faculty, Capacity Building

Having American teachers, studies in engineering and architecture at KU was based on curriculums used at American Universities. Different programs like Fulbright Hay Scholarships and the USA's Peace Corps Volunteers supported the Program. American teachers taught and mentored young Afghan faculty. Top graduates were recruited every year to build up the academic capacity.

Job at the higher education institutions was

well liked; university professors and students enjoyed the respect of the bureaucrats and ordinary people alike. The teachers were committed. They took pride in their job, and spent considerable time in working with students and studio sessions. In 1970s, the department of architecture had faculty educated in many different countries: Afghanistan, Austria, France, Egypt and USA. No female teachers came into the team, however, except when an American art history field-researcher offered a course in history of the Gandahara (Greco-Buddhist) art in Afghanistan in 1975 (Klimburg-Salter, 2010). This course was influential in making some students, including myself; pursue higher education in architectural conservation.

Architecture Students and Gender

While students were mostly male some classes included one but never more than three female students. There were about eight to ten graduates annually. In 1977, President Daud for building extra technical capacity for his planned developmental projects commissioned the universities to accept freshmen six-fold; more than 700 freshmen were admitted into engineering at KU and therewith beginners in architecture education also increased --allowing more female students enrolment during 1977 to 1980.

The graduates of the technical high-schools like the Afghanistan Institute of Technology (AIT) having courses in building construction and technical drawings had a better technical foundation for onwards engineering and architecture studies.

Curriculum, Text books and Resources

Architecture Curriculum was a five years education. Being a department within

the Faculty of Engineering, its architecture curriculum was “with a strong emphasis upon building science, particularly structural design” (Lewis, 2009). The shortcoming in the curriculum, for local application, was that it not covered history of architecture in Afghanistan itself as part of the history course. Heritage and conservation was missing too. Students therefore knew little about the references to archaeology, architecture and art history of Afghanistan. To an extent, this helps to explain why most Afghan architects and engineers even today have a limited understanding of the issues around conservation and seem to have few qualms about transforming or even replacing historic buildings, introducing new buildings or driving new roads through historic urban neighborhoods. In these actions, they seem to draw on the models of modernity that they saw or read about elsewhere in the region or further afield. In fact, their vision differed little from the mentality that prevailed in post-war Europe, where immense damage was done to architectural heritage in the name of reconstruction (Najimi, 2009).

English language was the medium of instruction, until 1978, and text books were all American products. This sometimes made it difficult for students from provinces to cope with the situation. Also printed material and references for architecture were not available in local languages. The university library was the only campus-based reference resource. Equipments facilitating visual presentation in lectures like history of architecture were the traditional slide projectors and book-overhead reflectors.

Design projects, Studio Sessions and teamwork
The emphasis of the architectural education

was more on creating buildings in a modern built environment. Teachers were focused on teaching students how to plan and organize spaces for a specific use every semester, starting with a family house, institutional and commercial buildings; and understand the structure based on modern material. Concrete as a material for construction was more known as the architecture students shared lectures and lab in structure and concrete testing with students of civil engineering.

Based on a full day schedule; lectures were planned in the morning hours and afternoons were allocated for studio sessions in sketching, design and drafting, following the pattern of “atelier-based training” (Kuhan, 2001). Students of different classes shared the same and large studio space enhancing a good peer- communication and discussion. The studio hall was also active in the evenings, and sometimes the night, especially when students worked in groups and to complete hand made presentations. Female students, obviously restricted culturally, stayed until sunset only.

Education through Research and Field Work

Professors coming through the Fulbright-hay Scholarship Program helped carrying out research oriented teaching and exposing students to Afghan vernacular architecture. (Hallet & Samizay, 1980; Szabo & Barfield, 1991). No doubt that architecture students needed to get exposed to their surroundings, know the historic city and neighborhoods, civilization and culture. Design concepts and construction details worked out in the historic buildings, urban patterns and natural landscape have been varied in different parts of the country.

Field trips played a major and important role as stressed by scholars (Khan, 2011; Sahlberg, 2011). The "Instruction and application" (Yatt, 1993) methodology as part of teaching activity was found well strengthened. Both teachers and students were inspired for further academic work.

Inspiration and Academic Follow-up

Valuable academic works were published on the housing in old city of Kabul and Afghan villages. These have become major references for scholars and students later on. Teachers and students having gained exposure through the researches and field works above discovering the riches of the vernacular architecture of Afghanistan continued similar research through their higher and postgraduate studies abroad. (Samizay 1974; Kazimee, 1977; Taheri, 1980; Najimi, 1988).

Coordination and Mentoring

The small team of architecture faculty allowed for an effective coordination in teaching and research activities. A faculty developed as he taught individually and independently, partly because the few teachers had to cater for the many courses offered each semester. "Coordinating their teaching while working autonomously" (Dill, 2003) allowed the professor lecturing on design students know what the professor lecturing on structure, or the history of architecture was teaching to the same students.

Through a "Centre for Engineering Consultation, Scientific Advices and Applied Research" (CECSAR) the faculty initiated a consultancy service in 1977; where both faculty and students participated in design and production of working

drawings. Applying their theoretical approach into practice they also benefited from some financial remittance. USAID and other donors to Afghan government used such services for projects they funded as the ministries oversaw the implementation by private contractors. Despite all such success this architecture school faded out in the name of the revolution of 1978.



Figure 1. Class of Architecture students 1979, Kabul University demonstrating models of their design projects. (Source: Rahim Hakimi, 1979).

The Turning Point, Degradation, Soviet Invasion

The Coup d'état of 1978 was a turning point in Afghanistan modern history. The new government favored Soviet model of governance and academic institutions. A Soviet educated professor from KPI was appointed as the deputy dean of the USA modeled Faculty of Engineering. Political loyalty to the regime weighed more value compared to a student's professional qualification and performance. Students functioned as informants and

professors were in trouble if they differed with the system. In 1979, the medium of instruction changed from English to Dari and Pashtu (national languages).

The December 1979 Soviet invasion of Afghanistan changed the situation further. Soon it was decided to plan closure of the architecture (and engineering) at KU and instead commence an architectural department at the Soviet modeled Kabul Polytechnic Institute (KPI) in 1980. There, Russian language was the medium of instruction but for the early classes lectures and notes delivered by Russian Professors needed to be translated by Afghan assistants into one of the two official

languages of Afghanistan.

Brain Drain, Immigration

Due to political decisions above, architecture program at KU faced downfall in 1981. Admission was no longer open to new students by 1983 and with the graduation in 1985 the door of the Department of Architecture was permanently closed (Layan, 2010). Many students abandoned their education and left the city for fear of imprisonment, forced military services and many emigrated. Professors too sporadically left the country and sought asylum at western countries. For those loyal to the regime, KPI was the favorite engineering school to send their children to; faculty and students

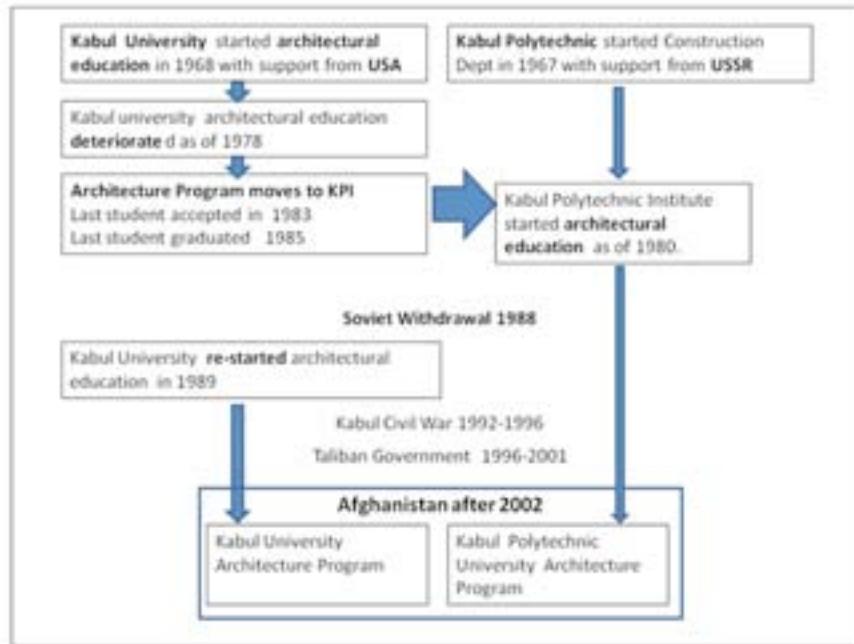


Figure 2. Architectural education in Afghanistan and events during the 40 years since its inception. (Source: Author, 2011).

were sent on scholarships to former Soviet Union universities. Architecture program at KPI run as a department under the Faculty of Civil engineering/construction. The curriculum was probably compared to that of KU but inspired of a Russian/European model of 1970s, with a final semester for Diploma project and graduation equivalent to M.S. Degree. In contrast to the academic research work undertaken at KU in pre-Soviet era, not much of Afghanistan related research work is known being done at KPI. According to the graduates, no specific textbooks were used and teachers prepared notes and handouts.

The focus was on designing rigid multi-storey buildings with concrete structures: apartments, hospitals and commercial blocks. [Figure. 3] Plans and site plan arrangements were inspired by what was indicated in the Soviet prepared Master Plan for Kabul City in 1978. Concrete

made the favorite building material and a three meters bay a favorite module for the reinforced concrete columns in most commercial and mix-use buildings. Traditional building material and vernacular architecture of Afghanistan was only used in self-made housing and in informal settlements.

Across the border in Pakistan, at the refugee community in Peshawar, a number of Afghan professors joined the non-governmental institute of Dawat University that since 1989 offered training in architectural and engineering studies to Afghan refugee students, whose service was needed in works by NGOs projects in the liberated parts inside the country supported by international donors. Others sought refuge in Australia, Europe and USA.



Figure 3. Manual presentation of architectural projects by KPI students, 2003 (Source: Author, 2003).

Rehabilitation of Architecture Education at KU

After the Soviet withdrawal in 1988, President Najibullah's government as a reconciliation attempts rehabilitated the Engineering Education at KU in 1989. Although with very limited resources, some teaching activities were initiated in 1990. While few more universities were established in the provincial cities (Herat, Kandahar and Mazar-i-Sharif) architectural education was only offered at KU and KPI. Kabul's inter-fractional war in 1992-96 devastating much of Kabul city hindered all sort of education until 1996.

Repatriation: From Peshawar to Kabul

As an act of supporting the Kabul government, Benazir Bhutto's government in Pakistan pushed the NGO and Afghan refugee institutions to move to Afghanistan to enhance the repatriation of Afghan refugees. Architectural students of Dawat University, moved to an inadequately shelter in a former government farm in Jallalabad in 1995 and then to Kabul in 1996. Taliban advanced to Kabul soon after. With exception of medical education, female students were not permitted to continue universities. "During the Taliban rule, the Faculty of Engineering at KU functioned but had very limited academic and financial resources" (Layan, 2010). Some students of Dawat University joined up the KU architecture program. A number of the teachers of architecture in Kabul today are graduates of that era.

Damages by Politics and War

In Afghanistan, damages due to war and in result of political instability, ineffective governance, people's indigence and immigration has been

enormous. In addition to the huge loss of lives, shortages in human working capacity are severe in all fields, especially when a rapid and uncontrolled transformation of cities and towns taken place in Afghan cities have brought up many challenges in the Built Environment. On human scale there has also been damage to people's self confidence and coping mechanism.

Confused Title: Architect or Engineer?

Professional titles are used to signify a person's professional qualification, role or to designate membership in a state body, professional society etc. Afghan architects educated within the Faculties of Engineering can be confused: Architect or Engineer? So or the clients! As civil engineers attempt to also do architect's job, in ordinary building and residential projects, the client cannot distinguish between an architect and an engineer. In Afghanistan all architects are commonly addressed as "Engineers".

Few may realize that "teaching architecture is, in many ways, a distinct profession into itself." The teachers may also overlook that "the skills and experience required for both practicing architecture and teaching it is often complementary, but also somehow different" (ArchVoice, 2009). Given the disruption of systems of higher education during the long conflict, from which academic institutions are still struggling to recover, the undergraduate courses provide young Afghans with only the most basic technical and analytical grounding, which arguably does little to prepare them for the challenges that they are likely to face in their professional careers (Najimi, 2009).



Figure 4. Typical owners imposed concrete building within the historic part of Kabul Old City. (Source: Author, 2010).

Post-War Reconstruction, Education in Architecture

No one doubted, with the sudden international interest in Afghanistan after the fall of Taliban, that the time was right to have a new beginning in Afghanistan's post-war reconstruction. Since November 2001, both the Afghan government and its European mentors put Afghanistan's reconstruction a priority. Donors pledged and contributed to various and relative upgrading of the survived built environment in the capital Kabul and few other cities. International companies arrived and have worked as building contractors mainly to the US Army Corps of

Engineers (AED) and the International Security Assistance Force (ISAF) building army camps, garrisons, security bases, police installation and air fields etc. All, contractors and subcontractors needed to employ young afghan professionals; architects and planners may have had fewer roles in such works, but could quickly get a job. The international seminar "Kabul & the National Urban Vision 2002" in Kabul emphasized the need for many more and better qualified architects and urban planners. "There is an urgent need to ensure that the process of urbanization in Afghanistan will be sustainable and to maintain a balance between rural and urban development. It is also important to

ensure that the development of Kabul preserves heritage sites and green spaces in the city," President Karzai marked in his addressing the conference (UN-HABITAT, 2002).

Kabul Polytechnic Institute got promoted to a university; KPU and KU resumed programs in architecture education; female students returned to complete their education disturbed earlier.

The question still remaining has been whether these departments are successfully educating architects? Vision, planning, organizing, leading, and controlling are understood to be the internal factors leading to better results in a school management. KU and KPU being active for the past ten years are yet to correct the many shortfalls and meet challenges faced in the architecture education in Afghanistan; that needs to be addressed as in-campus and out-campus factors.



Figure 5. Students of Winter Course 2011 discussion as part of an Architecture assignment in conservation planning. (Source: Author, 2011).

The On-Campus Challenges

Lack of Vision, Little Capacity and Enthusiasm

In 2002, a former faculty, professor of architecture at a USA university, proposed a plan to reform the architecture department at KU. He advocated upgrading the existing program into a college encompassing architecture, conservation and environmental studies. The leader/ chancellor of the university (a professor of agriculture) and the dean of the Faculty of Engineering (a professor of electric engineering) overlooked this opportunity. Potential donors were at sight, but the management could not envision it. Ten years after the rehabilitation of the department and despite it being in partnership with Kansas State University between 2007-9 where some four faculty went for master degree education, today a teaching assistant (Pohyalay) is chairman of the department of architecture at KU.

Comparing the ten years span of architectural teaching in 1970s to the decade long recent period one finds that the latest program management has been very poor. Little has been worked with teachers' pedagogical capacity. Teaching hours are making 50-55% of class hours in 1970s. Like in many universities, both KU and KPU, tend to assign junior faculty to freshmen's class. Often the talented freshmen get discouraged as much as the weaker student may not learn easily. Classes are run from 8 am to 13 Noon.

Curriculum and Qualification

The rehabilitated architectural program at KU had used a version of the 1970s curriculum. The last group of students educated on the basis of that curriculum was graduated in autumn 2011.

Kansas State University (KSU) advised a new curriculum in 2007 (Watts, 2008; Lewis, 2009; Azizi, 2010). Few of the faculty is objectively trained to live up to the contents of the new curriculum. While titles of some courses are renamed the new curriculum still offers a Bachelor of Science in Architecture (BSc. A.) degree after 5 years education. In the same college civil engineering is done in 4 years. All are however called "Engineers" in public.

While the final project (graduation project) at KU is like a semester exam in design course, at KPU it is considered as the "Defense of degree" session of the candidates for graduation. One or two visiting professionals are invited to attend

as jury.

Staffing and Gender

In 2010 -11, the Architecture Department at KU had nine male and one female teachers, graduates of the department itself; four of them have MA from Kansas State University USA (KSU), one had MA from India. A faculty has PhD level qualification in earth architecture from Germany, but has little influence in the department. The faculty at KU is young and not specifically trained as teachers. "Relying on memories of their own education, [mostly during the period of instability] they are dealing with the "traditional design project" (Weaver, O'Reilly & Caddick, 2000). In comparison, the

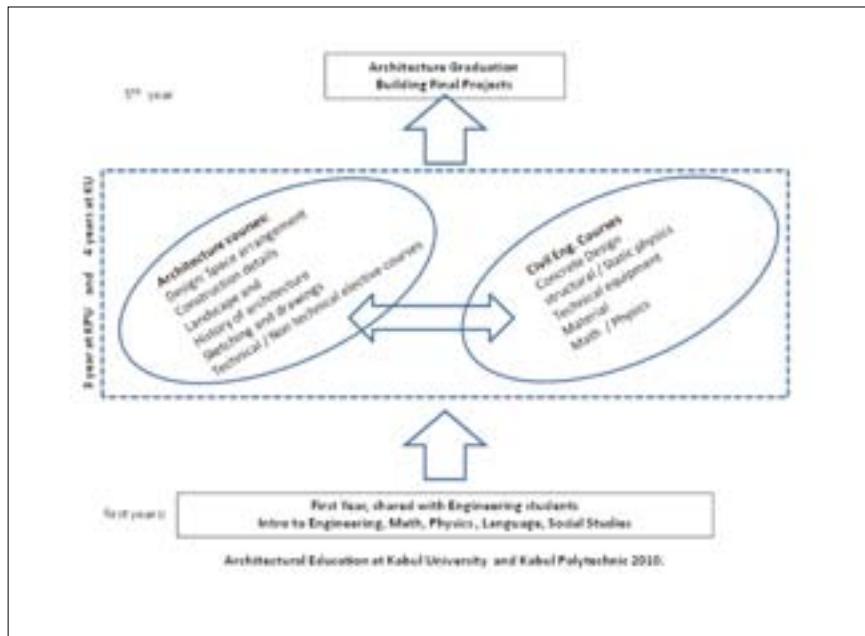


Figure 6. Diagram of study path at KU and KPU (Source: Author, 2011).

architectural department at KPU has twelve teachers (Afghanistan Cultural Profile, 2011). Only one is female (now an office-holder in the ministry of higher education). Ten teachers are MA; one with degree from London, four from Czech and Slovak republics. The rest are KPU educated and with higher education in the former Soviet Union.

Perhaps unusual in other universities, at Architecture Departments of KU and KPU the faculty is a team of either class-fellows or one being formerly student to the other. This relationship is making the junior staff suffer from indebtedness to their seniors and lack confidence causing restraint in department discussions. They may disagree on issues but do not confront each other's reasoning or lack of performance and accountability.

Teaching Accountability and Performance

While both teachers and students understand "design" as the main subject of Architecture, innovation in design, learning and examining design principles, spaces and socio-cultural concepts are limited. The "Design students are interested on learning how to illustrate the details of a window and its related design vocabulary, rather than strongly focusing on design principles and vocabulary" (Azizi, 2011). Regionalism (the use of material, the architectural form and the local environment) and cultural aspects related to design practice are not much focused on.

While fluency in the visual language of drawing is necessary in communicating design, these days, hand drawing is not practiced much and students are extremely poor in hand drawn presentations. Both teachers and students

focus on learning computer software. Teachers themselves are not mastering sketching, "students think that the trends have changed and there is no need for freehand sketching anymore" (Azizi, 2011). Students sometimes take courses outside the university. However, use of computer for graphic works is not adequately mastered either. Some students presenting their graduation projects in the last couple of years have produced computerized 3D illustrations commercially. Different teachers evaluate students differently. While one would count grades of tests and homework in addition to the course's end exam others might only judge students performance based on a final exam. The assignments in design are assessed by a review of their design work (drawings) and graphic or power point presentations in front of the course teacher and their classmates. Occasionally other faculty, visiting professionals, and interested students also attend. Grades are given by the course teacher.

Young teachers' capacity building has been a priority. External volunteers have assisted in teaching since 2001, but neither the ministry of higher education nor Kabul University have yet acknowledged their service as a resource. A formal mechanism to manage the external volunteers, part time teachers and visiting professorship does not exist. The faculty in general is not well equipped with the "necessary pedagogical preparation" (Weaver; O'Reilly; and Caddick, 2000). Little is observed that young faculty engage to learn from the senior volunteers or visiting scholars. And, when a faculty is away, sometimes for weeks, other faculty does not seem to cover the classes.

Secondary Jobs

Illegal for their civil service-employment contract, most teachers have secondary full time jobs. Either they work for construction firms or have a small business themselves, mainly in army related projects. Their enterprising interest is stronger than their motivation for academic activities. They argue that "architecture professor can earn five to ten times less than working for an engineering firm and construction company"(Azizi, 2011). This perception has pulled them to work less for the department and more for their private engagement outside the university. This unfortunately leaves little room, attention-span and energy for teachers to concentrate on their prime job as architectural educators. The university management often overlooks faculty's absence, a legacy prevailing among civil servants since mid 1980s. There are faculty who ploy students with week-long assignments but no interaction, especially in their elective courses. No student has ever failed such a teacher's course.

Pedagogy and Architectural Education

"Young professors do not receive any formal training [in pedagogy and teaching skills] to prepare them for classroom teaching" (Azizi, 2011). Obviously, they express limitation in teaching a course they have not taken themselves. While internationally "a new wealth of ideas and debates centering on educational reform" (Dutton, 1987) has lately developed, architectural educators in Afghanistan lag behind or perhaps not read the literature. Given they were interested; mentoring for the young faculty is not available. Little is recognized in terms of studio pedagogy and architect's studio culture. Over-powered by family issues and commercial engagements,

the faculty often lacks research and scholarly activities. They have not published much. "Lack of infrastructure and systems within the university is another challenge... Most semesters begins and ends at indefinite times" (Azizi, 2011). This makes the educational planning calendar much unsteady.

The university being traditionally a venue for scholarships abroad, many might have joined the rank of faculty, less for academic interest but more for awaiting opportunities abroad. The faculty's exposure to internationally accepted architecture education and, "limited creative teaching approach" (Lewis, 2009) are obviously major challenges. "Most current architecture professors at KU were trained either under or after the fall of the Taliban [rule]. The challenge facing Afghan architecture professors in the Faculty of Engineering is in defining a methodology grounded in Afghan tradition and culture for the built environment"(Azizi, 2011). While only one of the Faculty officially has the rank of assistant professor, three are junior lecturers (in US university scale) all faculty in KU introduce themselves as "assistant professors" in their official correspondences.

Students' Perception and Participation

Majority of the students are very talented and sharp. However, brought up to be polite and stressed by lack of infrastructure they are not actively participating in class discussions and debates. Architecture student usually complain of heavy load of study and project activities and time taken for making presentations ready (Common, 2011), but complaints shared by Afghan students of architecture are about absence of teachers and fear for missing opportunities in their youth and

education cycle. "Most subjects are taught without having a proper course syllabus. Lack of required discipline to be followed by students, professors, and faculty staff is another problem...Therefore, the numbers of horrible academic miscommunications, shortages and misinterpretations are huge" (Azizi, 2011). Students find themselves helpless in absence of a study adviser.

Although Afghan universities have since many years announced to follow a credit system (US model) many don't apply it. "We made it simple for ourselves", noted a faculty at KU, "we don't have enough teachers". A failed student has three chances to appear for exam, in a span of two weeks, also in design class. In contrast, the KPU practice in its own way the credit system; an eight week course is offered to students failing in a prerequisite-course to enable him/her to catch up the higher course his class fellows take in the semester being continued.

Absence of Female Students in Fieldwork

Segregated in schools, and high schools, boys and girls are setting in the same class in the university education. Being out numbered, girls engage less in class debates and argumentative discussions. Lack of confidence is observed when they present their projects in front of the class or a jury. Female students have little interest to visit and study architectural sites and projects in Kabul. The female students, making about 4.8 % of all students in architecture and engineering, often avoid participating in a site visit, even when a course demands it. Some interesting archaeological and conservation works have been going on in Kabul Old City, Logar and Ghazni, but due to

security consideration many, especially female students, would hesitate to visit. Lack of public transportation is one of the main obstacles for female students' movement in Kabul city.

The Off-Campus Challenges

The Job Market in Afghanistan Today

The job market in today's Afghanistan is dominated by construction companies working for the U.S. Army Corps of Engineers' Afghanistan Engineer District (AED). While earlier most of the contracts were given to American firms, "as of December 2006, 70 percent of AED contract awards went to Afghan or Afghan-American firms. To date, AED has completed or has under construction facilities that accommodate more than 50,000 Afghan Army soldiers; and AED has completed more than 100 facilities for the police program, while working toward an end state of nearly 700 facilities" (AED, 2011). It is said that for their projects AED brings in pre-drawn CAD drawings that should be implemented for army and security installations; the consultant company or the subcontractors often adjust them slightly to the new site only. Other major projects in local market are done in Dubai or Pakistan, and for smaller projects or in the informal settlements many of the private investors "prefer to pass over the architect, when codes allow, and go straight to the builder" (Yatt, 1993).

Pre-University Students

Training in art and therewith free-hand drawings is very poor in Afghan schools. Curriculum at high schools covers little of history of art and architecture in Afghanistan, indigenous constructions, people and their lifestyle. The emphasis is more on math and physics that are

considered the main prerequisites for admission into engineering and/or medical education. The nationwide university entry-exam recently enlisted architecture education as a discipline, but students could not make difference between constructions engineering verses architecture. As freshmen of the Engineering education, "many students believe that architecture [is] accomplished in doing civil engineering skills in buildings" (Azizi, 2011). Their knowledge about, talents and interests in Architecture is not examined. Therefore, freshmen have limitations in sketching, technical drawings, cognition of space and visualization of shapes, perception of perspectives and proportions in aesthetics.

Lack of Coordination between Architecture Schools

Being only two schools of architecture in Afghanistan, there is no or little communication

or coordination between them; teaching standard, methodology, resources are all different. The national level vision in architecture and architectural education is missing. While emphasis is more on buildings construction little is covered in terms of teaching and discussion about the built environment, a balanced conservation and development.

Inadequate Consultative and Management Support

"Many regulations set by the University and the Ministry of Higher education are obstacles in speedy improvements of the academic program" (Layan, 2010). Ironically, numerous western based Afghan Diasporas have resumed higher advisory positions through the last ten years, also at the universities, but little is contributed towards an effective higher education. About 65% of the donors' money



Figure 7. Students in the winter course in conservation planning. (Source: Author, 2011).

and 55% of national budget have gone into the military and security budget of the country. Non-military government spending is often limited, specifically investments in cultural, academic, and architectural education. Government offices like Ministry for Urban Affairs, Municipalities' planning and building control departments barely interact with the universities and architectural faculty and students.

Lack of effective administrative structure and traditional bureaucracy is often a cause for disappointment. Similarly, lack of skilled and trained technicians have left the teaching facilities primitive, tainted and dusty. Some classrooms are often locked and keys misplaced. University gates are guarded by armed and lesser educated policemen who often aggressively check students' and visitors' entry in the name of security measures. Their evident lack of admiration of the faculty and students discourage all and depress their mood.

Opportunities

Despite all the challenges, there are some opportunities available that would benefit good training of architects in Afghanistan. These need to be examined as in-campus and external framework.

On-Campus Opportunities

Teaching at university has been a prestigious job in Afghanistan. Employed by the State, a University teacher is a government civil servant with long term job security. To their respect, and to keep the senior academic staff in the university, many senior professors reached retirement age but are still kept on job. Senior teachers enjoy a high social regard and professional autonomy in

the universities. As ranked government official a faculty is facilitated with 'service passport' upon his/her travelling abroad. The faculty earn two salaries; civil rank-salary based on employment seniority and a supplement of an academic rank in the professorship scale. They are paid for twelve months while teaching for nine months. Therefore a university should be able to attract very qualified architects to teach.

A number of previous professors returning from their refugee life abroad have sat on managerial and advisory posts within the government departments and are respected as authority. This should be a good motivation for the young faculty envisioning opportunities in their future career.

Adequate Teacher-Student Ratio

The teacher-student ratio (Bandiera, Larcinese & Rasul, 2010) is important especially in a design class for student-teacher interaction in studio sessions and a better student performance. "Many universities look at it very critically". (Crittenden, Norr & LeBaily, 1975) This ratio is only 8 to 25 students (1 to 4 female) in the architecture classes in Kabul. The freshmen in architecture program at KU were 24 students (only 2 female) in 2010. Total number of architectural students at KU is around 85; this makes an average student-to-faculty ratio of 10. Similarly, the number of students doing architecture in KPU is 240, organized in eight groups of maximum 30 students. Each group has at maximum 5 female students. Two teachers normally teach the studio classes and the practical sessions; the student-to-faculty ratio is around 15.

Better Libraries, Text Books and Internet Access

Text books and reference material, advised by KSU, have been supplied to the libraries of the departments and their umbrella institutions from funds by the World Bank through the Strengthening Higher Education Program (SHEP) in 2008. The US Army Corps of Engineers have also supplied some books to the library of the Faculty of Engineering at KU in 2010. The collection also includes original or photocopies of the publications on Afghanistan architecture researched in 1970s.

In contrast to the 1970s, when books and libraries were limited, today the internet has opened a wider window for both faculty and students to search for knowledge, inspirations and references. Afghanistan Centre at Kabul University (AKCU), Afghanistan Research and Evaluation Unit (AREU) and Aga Khan Trust for culture office in Kabul (AKTC) have some collection of books that the Faculty and senior students can use as reference and extracurricular studies. Students are bright, curious and are eager to learn. They contact professors abroad, study websites of other universities, but they need study advisors and mentors to guide them well.

External Opportunities

Realizing the shortfall of qualified local architects and professionals in planning and conservation some organizations has sympathetically allowed their senior staffs teach architecture and mentor young faculty. They also accept students for internship and some major donors have supported university partnership programs. When invited professional working in international organization will to deliver lectures

to students. Arguably, donors, embassies and world-bank funds could be available once they realize the seriousness of an implementation partners.

Partnership with Other Universities

A grant of US\$ 40 million became available from The World Bank, for Strengthening Higher Education Program (SHEP) initiated in 2005. Six universities in Afghanistan established partnership with universities in Europe and USA (Bank, 2011). The Faculty of Engineering of KU received its part of assistance from this grant in April 2007. "This assistance came in the form of a ten-year partnership agreement between Kansas State University (KSU) and Kabul University (KU). "The goal of the partnership [was] in line with the larger strategic plan of KU to raise university education to international accredited standards by 2015" (Watts, 2008). The outcome was the "new five-year curriculum for Architecture" (Asia-Link, 2009) and KSU professors mentoring the faculty in architecture (Watts, 2008; Lewis, 2009). As a capacity building exercise, a joint studio run by students of KU and KSU was undertaken in 2008. But the distance had a lot of limitations on communication that depended on IT technology (Watts, 2008). KSU trained four teachers in their MA degree, three supported by the World Bank Grant and another by a Fulbright scholarship between 2008 and 2011. But, interestingly, upon their return they re-occupied their secondary jobs outside the university, instead of concentrating on the improvements of the department and in raising the standard of education.

Having partnership with Slovakia University, KPU held an international conference and scholars from Afghanistan, Slovakia and others

spoke on the capacity building in Engineering and architecture in Afghanistan (AsiaLink, 2009). Such activities attracted attention of the donors. Benefiting some French support KPU also has a Clay Building Research Centre (Profile, 2011) that has provided resources for books and scholarships for Afghan architects' Master degree education in France.

Support by Donors and Professional Organizations in Kabul

Aga Khan Trust for Culture (AKTC) has through its conservation projects in Kabul contributed to architectural education in Afghanistan since 2002. Senior program staff and consultants have presented works, given lectures and taught courses in architectural history of Afghanistan, Planning and Conservation to students of KU and KPU. Students also have had access and visited the sites of ongoing conservation project (AKTC, 2005). Further, support has been provided by AKTC in creating a forum for discussion and debate about Architecture, urban issues and conservation mostly in the newly-restored 18th century mausoleum of King Timurshah, which provide a centrally located space in the core of Kabul city. This program has helped to develop awareness among counterpart staff and students alike, while exposing Afghan professionals to the varied international experience of short-term consultants who have volunteered to make presentations (Najimi, 2009). AKTC's contribution also encompassed exposure of students to vernacular architecture in Afghanistan. Students are taken to the recently restored Bage- Babur (a Mogul garden in Kabul) and the restored historic houses in the old city of Kabul (AKTC, 2005). "Much of today's building activity takes place in sensitive historic environments and architects are often

engaged in redesigning existing buildings. It is therefore essential for students of architecture to be aware of the philosophy of conservation of historic and vernacular buildings. To achieve sustainability, the efficient use and reuse of built resources is crucial. In addition, traditional settlements constitute a very important part of the cultural heritage of every country and incorporate many bioclimatic elements. The detailed investigations of vernacular settlements, and the principles for their conservation and [adoptive] reuse, constitute some of the essential elements" in conservation and upgrading of the Built Environment (Philokyrou, 2011). Utilizing the internet facility, AKTC newsletters, relevant articles, stories and information on architecture, conservation and planning are regularly shared with the staff and students of the universities. (AKTC, 2005)

Extra Curricular Education and Short Courses by Visiting Professors

Supported with a grant from the US embassy in Kabul, AKTC has facilitated talks and lectures by visiting professors. A scholar from Berkeley taught a planning course at KU where a couple of KPU students also participated in 2008 (Calogero, 2011). During 2009 -10, AKTC seconded a fulltime senior staff to help and teach courses in Sketching, History of Architecture (also Afghanistan specific), Conservation and Architectural Professional Practice. During winter 2011, AKTC offered two certificate courses, each five weeks (above 50 hours) and numerous week-long short courses. More than 200 architecture students and graduates of KU and KPU have benefited. The different sessions focused on basic architectural education, conservation, urban planning, making cities work, etc.; also lectures were organized in



Figure 8. Winter course participants at studio exercises, (Source: Author, 2011).

photography, use of GIS in improving informal settlements, archaeology, and conservation of brick domes. Similarly, a summer course was organized in August 2011 in Urban Conservation / Design in Historic Cities. Lectures were given on history and architecture of covered bazaars in the Islamic world. The site of an historic covered bazaar "Char Chatta" burnt in 1840s in Kabul Old City was studied and students made proposals for adoptive reuse. The first Kabul graduate of 1973, now professors at Washington State University USA lectured and run a studio for more than 34 graduates and students.

Two teachers' seminars were facilitated by AKTC in April this year. Curriculums of architecture programs in KU and KPU were compared and discussed. Also ways to share resources and arranging common courses

were explored. Summer courses in 2012 have been conducted by visiting professors from San Francisco state university and Washington State University have given courses in Urban Planning, history of architecture in the Islamic world and urban design. On behalf of the students, the author would certainly appreciate scholars internationally to contribute to architectural education in Afghanistan.

By bringing in the Afghan faculty of 1970s, now Diaspora, the past is linked to the present; the lost resources are identified and facilitated to re-engage and assist building a better architectural education in today's Afghanistan.

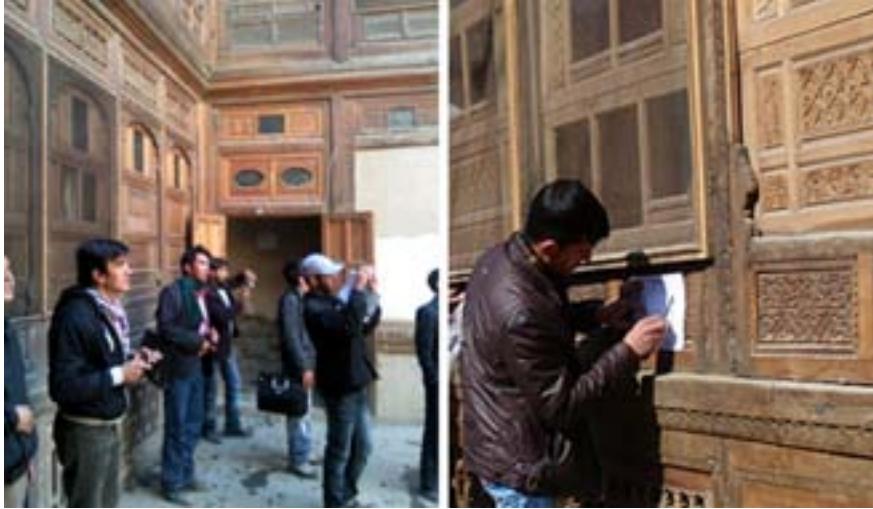


Figure 9. Group of students at Kabul old city houses as field visit, (Source: Author, 2011).



Figure 10. A Summer Course participant presents his project proposal. (Source: Author, 2011).



Figure 11. Prof. Bashir A. Kazimee working with students in Kabul in the same classroom he was educated himself 40 years ago. (Source: Author 2012).

Conclusion

Ten years after the present engagement of US in Afghanistan, comparing the contemporary architectural education program in Afghanistan today to the decade of US support to architectural education in pre-war time, (35) years ago, it indicates that obviously the former was more successful. The main factor making the difference seems to be country-wide peace, vision and dedication of the academic staff and management skills of the program administrators. Architectural education has moved on internationally (Salama, 1995; 2010). Whether the KSU advised curriculum reflects such changes is not clear. But one can argue that the curriculum of architecture taught in Afghanistan should dwell on the realities in this country. One can still use the products of research done in 1970s as inspiration for architectural works and teaching today.

The document on Afghanistan National Development Strategy (ANDS) outlines its strategic vision to improving the quality of life of the people of Afghanistan through conservation of the nation's resources and protection of the environment (ANDS, 2008). Although the document does not mention sustainable architecture or its education at all, but the statement should indicate conservation and improvement of the built environment and to educate people for this task. Historic Cities preservation, uncontrolled urban transformation, rapid informal settlement (UN-HABITAT, . 2002) are the urgent issues for architects to work on and to prepare students and graduates for tasks related to Afghanistan Built Environment conservation and planning. The departments of architecture in KU and KPU not only need to coordinate their efforts and share resources but also to effectively interact with the public and private employers and donors like AKTC, TMF, UNESCO,

USAID, UN-Habitat and others funding projects for Afghanistan reconstruction.

The youth are national resources. Majority of the students are very bright and hard working. Through spending five years of their prime age in the university they should acquire the necessary skills to enable them for development leadership tomorrow. In reference to the charter of UNESCO/ UIA (UIA, 2005) the government of Afghanistan needs to seriously examine the academic capacity, style of engagement and requirements for quality higher education.

Perhaps it is better to bring in the scattered capacity into one body and set up the first School of Architecture, Planning and Conservation of Afghanistan. Extra-curricular courses, winter sessions and excursions have proved very beneficial to students and needs to be followed. Visiting professor Program should be continued and encouraged to enhance debate, exchange and innovation. While external funding would stimulate improvement, the university needs to be creative too. The old-way civil-servant employment of university professors needs to change and teaching should be more of an objective engagement of scholars and teachers. A mechanism for employing faculty with partial engagement in teaching should be introduced and paid for the time they teach. Women teachers should be encouraged as this would also encourage female students to embark on architecture and urban planning education, for the benefit of the Afghan community and people.

References

- AED. (2011). The U.S. Army Corps of Engineers' Afghanistan Engineer District (AED) <http://www.usace.army.mil/CEPA/FactSheets/Pages/AED.aspx> Accessed: 10 November 2011.
- Afghanistan Cultural Profile. (2011). Darah Association Afghanistan: Clay Building Research Centre. <http://www.afghanistan.culturalprofiles.net/?id=819>. Accessed: 22 October, 2011.
- ANDS. (2008). Afghanistan National Development Strategy. (Kabul) http://www.embassyofafghanistan.org/documents/Afghanistan_National_Development_Strategy_eng.pdf. Accessed: 13 December 2011.
- AKTC. (2005). Urban Conservation and Area Development in Afghanistan. Aga Khan Trust for Culture, Geneva. http://www.akdn.org/publications/2007_akhcp_afghanistan.pdf. Accessed 10 November 2011.
- ArchVoice. (2009). Those who can, do. Those who can't, teach. [www.ArchVoices.org http://www.archvoices.org/pg.cfm?nid=home&lssueID=288](http://www.archvoices.org/pg.cfm?nid=home&lssueID=288) Accessed: 20 September 2011.
- Asia-Link. (2009). March-April 28-01. Current Trends in Civil Engineering and Architecture. www.AFGAsiaLink.eu: <http://www.afgasialink.eu/KabulConf/Autor.aspx>, Accessed: 25 September 2010.
- Azizi, Hemayatullah. (2011). Using pattern language for a single family house: teaching a beginning architecture design studio at Kabul University, Faculty of Engineering, Department of Architecture. (Thesis) Kansas state University. (Manhattan, Kansas) USA: krex.k-state.edu/dspace/bitstream/2097/.../HemayatullahAzizi2011.pdf. Accessed: 10 November 2011.
- Bandiera, Larcinese & Rasul. (2010). The impact of class size on the performance of University students. VOX: <http://voxeu.org/index.php?q=node/4471>, Accessed: 26 September 2011.
- Bank, World. (2011). Implementation Status & Results-Afghanistan: Strengthening Higher Education Program, P089040, <http://www.wds.worldbank.org>, http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/SAR/2011/06/25/B7612DCD4A368586852578BA0070D3D5/1_0/

- Rendered/PDF/P0890400ISR0Di025201101309033942790.pdf, Accessed: 31 October 2011.
- Bechhoefer, W. (1977). Architectural Education in Afghanistan. *Afghanistan Journal*, (Graz) No 4, pp.147-9.
- Bechhoefer, W. (1977). The Role of Squatter Housing in the Urbanization of Kabul. *Afghanistan Journal*, (Graz) No 1, pp. 3-8.
- Calogero, P. (2011). Planning Kabul: the politics of urbanization in Afghanistan. (Thesis) Berkley University. www.calogero.us: <http://calogero.us/dissertation/> Accessed: 10 November 2011.
- Common, T. K. (2011). Creative Education? An Analysis of Existing Architecture Education in Singapore. Accessed October 31, 2011, from www.kentridgecommon.com: <http://kentridgecommon.com/?p=13860>
- Crittenden, Norr & LeBailey. (1975). Size of University Classes and Students Evaluation of Teaching. *The Journal of Higher Education*, vol. 46, No 4, pp. 461-470.
- Dill, D. D. (2003). PPAQ, Public Policy for Academic Quality. <http://www.unc.edu/ppaq/docs/SRHE5.pdf>, Accessed 12 October, 2011.
- Dutton, T. A. (1987). Design and Studio Pedagogy. *Journal of Architectural Education*, Vol. 41, No. 1 (Autumn, 1987), pp. 16-25 <http://www.jstor.org/pss/1424904> Accessed: 10 November 2011
- Hallet, S. & Samizay, R. (1980). *Traditional Architecture of Afghanistan*. New York: STAMP.
- Kazimee, B. (1977). *Urban Rural Dwelling Environments: Kabul, Afghanistan*, MIT Thesis.
- Kazimee, B. (2008). Bashir A Kazimee Curriculum vitae 2008. <http://www.arch.wsu.edu/08%20people/pullman%20faculty/bashir%20kazimee/Kazimee%20Resume%2008.pdf>. Accessed: 15 September 2011.
- Kazimee, B. (2002). Living Traditions of the Afghan Courtyard and Aiwan, in *TDSR*. Vol 23, No.11, pp. 23-34. <http://iaste.berkeley.edu/pdfs/13.2c-Spr02kazimee-sml.pdf>, Accessed: 10 November 2011
- Khan, S. (2011, March). Review of transformative pedagogy in architecture and Urbanism by Ashraf M. Salama. *International Journal of Architectural Research*. vol. 5, issue 1 (2011). http://archnet.org/library/documents/one-document.jsp?document_id=11474. Accessed: 15 November 2011.
- Klimburg-Salter, D. (2010). Curriculum vitae. <http://whav.aussereurop.univie.ac.at/cv/CV%20Deborah%20Klimburg-Salter.pdf>. Accessed: 11 October, 2011.
- Kabul University. (2011). <http://ku.edu.af/en>. Accessed: October 10, 2011.
- Kuhan, S. (2001). Learning from the Architecture Studio: Implications for Project-Based Pedagogy. *International Journal of Engineering Education*, Vol. 17, Nos. 4 and 5, 349-352.
- Layan, H. (2010). Strategic Plan of the Faculty of Engineering 2010-2014. Kabul University. Kabul.
- Lewis, K. M. (2009). Rebuilding a Foundation: Mentoring Beginning Design. 25th National Conference on the. Baton Rouge: Louisiana State University.
- Najimi, A. W. (1981). The Ghaznavid Architecture in Afghanistan. *Afghanistan Quarterly*, (Kabul) No 3, pp.78-94.
- Najimi, A. W. (1982). The Cistern of Char□suq: A Safavid Building in Herat. *Afghanistan Journal (Graz)*, Vol.9 No. 2, pp. 38-41.
- Najimi, A. W. (1988). *Herat the Islamic City: a study in conservation*. London: Curzon Press.
- Najimi, A. W. (2007). Building Kabul: Mimars, Architects and Engineers. *PARAMETRO*, No. 272, pp. 82-84.
- Najimi, A. W. (2009). Capacity building in architectural conservation. Constantine. Algeria. www.umc.edu.dz/vf/images/patrimoine/axe1/NAJIMI-ARTICLE.pdf. Accessed: 10 November 2011.
- Najimi A.W. (2010). Built heritage in Afghanistan: threats, challenges and conservation, *International*

Journal of Environmental Studies, 68:3, 343-361 available: <http://dx.doi.org/10.1080/00207233.2011.573961>

Neuckermans, P. D. (2001). ASRO - Katholieke Universiteit Leuven., <http://www.docstoc.com/docs/53849021/Rethinking-architecturaleducation-in-Europe>. Accessed: 07 October 2011.

Philokyprou, M. (2011). Teaching Conservation and Vernacular Architecture. Journal of Architectural conservation. Volume 17, Issue 2, July 2011.

Sahlberg, P. (2011). The Professional Educator: Lessons from Finland. American Educator, pp. 34 -38.

Salama, A. M. (1995). New Trends in Architectural Education: Designing the Design Studio. USA. http://archnet.org/library/documents/onedocument.jsp?document_id=633034. Accessed: 08 October, 2011.

Salama, A. M. and El-Attar, M. S. (2010). Student perceptions of the architectural design jury. Archnet-IJAR, International Journal of Architectural Research, July and November, 2010. pp.174-200.

Samizay, R. (1974). Urban Growth and Residential Prototypes in Kabul. MIT (Cambridge, Massachusetts) USA.

Szabo A. &. Barfield, T. J. (1991). Afghanistan: An Atlas of Indigenous Domestic Architecture. University of Texas Press.

Taheri, F. H. (1980). Urban elements of traditional Islamic cities. MIT (Cambridge, Massachusetts) USA.

UNESCO /UIA. (2005). UNESCO/UIA charter for architectural education http://www.aij.or.jp/jpn/aijedu/chart_ang.pdf. Accessed: 07 October 2011.

UN-HABITAT. (2002). UN-HABITAT joins in the reconstruction of Kabul . <http://reliefweb.int/node/111016>. Accessed: October 15, 2011.

Watts, D. (1981). Recurrent Patterns in Traditional Afghan Settlements. Afghanistan Journal (Graz) No. 2,

pp. 66 -73.

Watts, D. (2008). Regeneration: Discovering tradition through cross cultural design. International Association for the Study of Traditional Environments, IASTE, Twentieth Anniversary Conference, Oxford, United Kingdom. Oxford: K-state University Research.

Weaver, N.; O'Reilly, D. & Caddick, M. (2000). Preparation and support of part-time teachers, in Changing Architectural Education, pp. 228-35, New York: Spon Press.

Yatt, B. D. (1993). What is the most important single change necessary in the education of architects? www.archprac.cua.edu/aprp/olce/papers/items/wagner/htm, Accessed: 20 November 2011.

Abdul Wasay Najimi

Abdul Wasay Najimi (Architect. Ph.D) is a conservation architect with the Aga Khan Trust for Culture (AKTC) in Kabul, Afghanistan. He has been involved in restoration and conservation projects in Bamiyan, Herat and Kabul since 1991. He has conducted extensive research on the monuments of Bamiyan and Herat. Prior to joining the AKTC in 2002, Dr. Najimi worked with various international aid, reconstruction and research organizations involved in development work in Afghanistan and Pakistan. Dr. Najimi carried out conservation work of Uzbek Mosque at the Old City of Kabul and a major restoration project at the King Timurshah Mausoleum in Kabul city center from 2002 to 2005; assisted with conservation activities in Herat, Afghanistan in 2005-8. He has taught at Kabul University in 1970s and in 2009-10. Dr. Najimi was educated in Afghanistan and Denmark, and has published articles on architecture and conservation in Afghanistan, and a book, "Herat, the Islamic City" (1988). He can be contacted at <aw_najimi@yahoo.com>