

A preliminary study on architectural students' views about their aspirations and expectations

By **Héctor Pantoja-Ayala** (hpantoja-ayala@ioe.ac.uk)

Contextualisation

The research described in this paper is located in the field of architecture and cultural production within a state university in México City. It draws on a number of disciplines with its roots in the history and theory of architecture, and sociology of education. In its inquiry into students' views about their aspirations, the papers' emphasis is on students' solidarity and actions. This information, obtained through naturalistic observation, is described using a theory of codes and approaches drawing on social psychology. The paper seeks a contextualisation of the aims and processes to be undertaken in exploring its chosen site, using the concept of 'moments' to capture insights, as the research process unfolds

Abstract: *This paper presents the research design and shares some of the early findings, of a qualitative and quantitative study. It focuses on architecture students' views regarding the effectiveness of a flexible educational process that guides them in realizing their professional aspirations and expectations in the setting of México City. The paper is written with the following issues in mind: first it suggests that a students' prior academic background poses difficulties for them in understanding an interdisciplinary educational process; second, that the short time officially assigned to students in their course, in which to develop the design of a building, poses additional difficulties for them. Third, it argues that students' own views have to be taken into account and understood when considering the approaches applied to them in their education. The paper uses the concept of aspirations as a means to understand students' dispositions and attitudes, as revealed in a series of researcher revelatory 'moments'. A key aim of the paper is to describe the hidden principles of communication among students that may shed light on their views.*

Introduction

There has been extensive research into students' aspirations and their professional fate (Robaye, 1957; Veness, 1962; Norwegian National Commission-UNESCO, 1969; Prew, 1993; Purcell, 1996; Nuñez and Roazzi, 1999). However, only recently has such research addressed the education of architects (Teymur, 1992; Dunin-Woysethg and Noschis, 1998) and has been less concerned with their aspirations and their professional fate (Lewis, 1985). In this field a challenge that a teacher of architecture faces is helping students to make a meaningful link between theory and practice, between ideas and their concrete representation, and then facilitating the students subsequent move from the "unreal" world of the academy to the "reality" of practice (Denés, 1998; Lee, 1999; Louw, 1998). Whilst this is important, the point is that some parts of the architectural community who are aware of the issue, instead of focusing on the issue get sidetracked into endless discussions. These involve suggesting different teaching techniques or elaborating on more abstract theories. In the education of architects the bond between theory and practice stems from the times of the Roman architect Vitruvius, who suggested that a future architect should be educated to be "courteous, just, and honest" (Morgan, 1914). The dissonance between theory and practice in the education of architects and in architectural discourse is the part of the "unreality" of the architectural practice perpetuated by the schools that produce many students; the profession itself portrays an image of autonomy and freedom; spread by an architectural literary fashion

and the significant influence of the public's role in debates about architecture, due to the growth of modern democratic welfare, and capitalism with its emphasis on stimulating consumption (Scott, 1914; Benevolo, 1978; Wolfe, 1981; Lewis, *op cit*; Pérez Gómez, 1986; Gutman, 1988). In doing so, such practitioners have betrayed the idea of architecture as a multidisciplinary and multi-skilled practice; they have changed architecture as a social practice based on the human condition into a profession that serves society in terms of power (Teymur, 1992; Dutton and Mann, 1996; Sara, 2000). It should not be forgotten that architecture is the art of organizing groups of craftsmen. Architecture is a pedagogy that in its making and use, frames the world, structures experience, shapes consciousness and identity, and reinforces assumptions about culture and politics (Dutton, 1996).

In México City, in the 90s, an investigation was funded by the Rector of Universidad Autónoma Metropolitana (UAM) to examine the professional performance of the 1991 and 1993 graduates of architecture from the UAM-Xochimilco campus (UAM-X). The research tried to explore "changes after two years" by using questionnaires. It found that 84% of the architects were pleased with their actual job and would study again at UAM-X if it were necessary (Valenti *et al.*, 1995). The study also found that 92.9% of the 53 graduates (out of a total eligible population of 175 who answered the questionnaires) suggested broadening the content of technical subjects.

The degree program in architecture, as created at the UAM-X, was planned as a modular, student-centered system, based upon interdisciplinary work; what can be called a pedagogic discourse with weak classification and framing (C- F-) or integrated code, as defined by Basil Bernstein (1975). Weak classification and framing mean that students can follow several subjects and set their own pace and rate of learning. This process works as an "invisible pedagogy", ie, a practice where the rules and the criteria of learning, as well as the relations between teachers and students, are implicit and not known to the students. This invisible pedagogy is a disrupter to family life and the educational hierarchy (Bernstein, 1996; 1997). The diverse knowledge such pedagogy offers can lead to an invisible control of the student and create a new pedagogic and social identity that changes students from critical agents in a social crisis to agents in personal critique and crisis (Bernstein, 1999; Bourdieu, 1974a).

From an observational point of view, one problem that I have found in UAM-X's program of architecture is that many students studied at the secondary and high school levels in an educational process different to their current context. In Bernstein's terms, they studied in a collection code or strong classification and framing (C+ F+) context. Many students believe the 'modular system confuses'. Students complain when a teachers' pedagogy is "very open or flexible"; ie, when he or she follows the modular concept based on students' participation. Curiously they complain as well, when a teacher presents a topic because "he or she does not properly explain the topic or themselves" - they worry whether a subject is about construction or the structure's stability for example. This practice is further complicated by the issue of how long students study for: the term's duration. In the UAM-X program of architecture, the term lasts eleven weeks with two more for evaluations. This represents four weeks less study time in comparison to most, if not all, public and private schools of architecture (with collection or integrated code) in México City. Researchers from the field of design have suggested that time is a key factor for the act of designing. To reduce the time to acquire the knowledge and to understand the relationship of all aspects of this information, forces the student away from learning and closer to execution (Bassani, 1998: III cites Reinhart Kpselleck).

The Universidad Autónoma Metropolitana-Xochimilco (UAM-X) as context

UAM-X is one of the three campuses of the Universidad Autónoma Metropolitana (UAM). In 1974, the UAM was founded as a contribution to solving what was then perceived as a crisis of higher education in Mexico- a crisis that was attributed to social contradictions brought about by industrial and urban development (Bojalil, 1981; López, 2000). UAM-X campus was opened some months after (López, *op cit*) the two other sites and with a different educational conception: it was to be one "...where teaching would always be close to reality" (López's interview to Pedro Ramírez V. UAM's first Rector).

UAM-X's degree program is based on modules that last eleven weeks as the "*documento xochimilco*" proposed for all the programs describes. The *documento xochimilco*, a seminal book of UAM-X itself and its discourse, was designed by its first Rector Dr. Ramón Villareal (Villareal *et al.*, 1974). The *documento xochimilco* defines reality in Mario Bunge's (1983) conception, of "several levels or sectors" of knowledge with their own laws and properties; the "sectors" are the physical, biological, psychological, and socio-cultural. UAM-X' also operates by departments that link research with teaching (Villareal, *op cit*; López, *op cit*). This organization's intention was to make possible a democratic university with easy access to investigation (Villareal, *op cit*; Bojalil and Molina, 1985).

In 1991 there were 3770 students in UAM-X of which 810 were enrolled in the architecture degree program. In this program one finds the staff divided into antagonistic groups. In part, the conflict is due to disagreements about the usefulness of the *modelo xochimilco*. Some groups claim that 'the modular system cannot work properly'. They do not actually practice the strategy based upon the work of students studying 'real' people's architectural problems. Their main criticism is that its reliance upon creativity and flexibility has lead to a neglect of technical issues.

Within this turbulence, studies that have tried to understand the program of architecture's situation have failed to examine rigorously, the effectiveness of the *modelo xochimilco* in the view of different generations of students in relation to their aspirations. They have also not observed the effects of pedagogic practice ie the relationship between teacher and students in terms of the production and reproduction of culture. Culture is understood in this paper, as the site, *par excellence* at stake in a permanent struggle; that brings to individuals and groups, for whom legitimate culture is second nature, the capability to distance themselves so as not to be affected by societal pressures (Bourdieu, 1974a). Culture is an expression of a particular *social heredity* (Chombart de Lauwe, 1969).

Research focus and aims

The purpose of the research from which this paper derives is, first to examine the *modelo xochimilco* from the perspective of three groups of students: those who studied at the inception of the UAM-X, those completing their program and those at the beginning of their program. The detection and description of students' aspirations and expectations is one aim of the research. The goal of the investigation is to help gauge the effectiveness of the model and how it has affected the conceptualization and practice of architecture for those students that successfully completed their programs of study and those who did not.

In this paper I am focusing on my own perceptions of students' aspirations, actions and relationships in the design studio sessions. The particular aims are:

- to identify, to understand and to explain the "codes", or language of communication among students and within these groups;

- to find out if the groups of students feel confident, and have a sense of belonging with them.

Theory and research perspectives informing the investigation

There is a close relation between the cultural capital of people and their taste ie, their preference for legitimate arts works (Bourdieu, 1974a). Taste is the non-created source of all creation (ibid). It is the disinterested enthusiasm for architectural form (Scott, 1914) that plays a role regarding dispositions towards the sensuous experience of architectural substance and form. Dispositions or *habitus* are the systems of perceptions, appreciation and actions (Bourdieu, 1984a; 1992). Several factors determine students' cultural capital, that in turn impinges upon their practices and performance at the university, and upon their "aspirations" (Bourdieu and Passeron, 1964; 1990). These factors are internal to students themselves, and external ie, of the educational process at the university. The social origin is a factor along with the family, the age group or friendship patterns of students, and their perceptions of their occupational fate (Bernstein, 1975). The social origin of students refers to their parents' profession, geographical origins, and original religion (Bourdieu, 1984b; 1997). In other words, the same knowledge neither explains the same attitudes, nor engages the same values (Bourdieu and Passeron, *op cit*).

Students' academic background and educational capital are additional factors. Academic background is the type of school attended: collection or integrated code. In the former, students know the rules of learning, the pacing, and the rate of acquisition; in the later the opposite holds true, and it is flexible. Educational capital refers to academic records, number of courses, and honours awarded. For students of architecture I am considering as another educational capital indicator, the study of arts and/or drawing at previous levels of training, as well if they worked in a job related to architecture. The social origin determines students' "linguistic capital" – which is the chief factor that affects their performance and success (Bourdieu, 1964, p 25 citing Bernstein, 1961). The importance of class as a factor, is its category of exclusion reproduced in schools through their social ambience and the forms of transmission of knowledge (Bernstein, 1975). This deficiency was more a characteristic of the old educational system or collection code. Yet the new system, which I interpret as integrated code, with its blurred classifications and edges promotes in students, or the intermediaries in the social space, aspirations that are also blurred and fuzzy (Bourdieu, 1974a; 1984b). The manipulation of students' aspirations (Bourdieu, 1984b) has lead to a dissonance between the aspirations of students and the opportunities the social system offers (Bourdieu and Passeron, 1990; Bourdieu, 1997).

Some students aspire to the same level of life, to independence, and to a new pedagogic relationship (Bourdieu and Passeron, 1964). Human aspirations are generators of individual and social forces (Chombart de Lauwe, 1969). Aspirations can be manifest in different planes. In a one plane, aspirations are actions directed to an object. The *desire* for a car or the pursuit of a dress or suit is an example. Aspirations can also manifest as goals and hopes. The former is the anticipation of a change in status, for instance by means of a professional career. The later manifests itself as a fear of losing something that one owns (Ibid). Aspirations are in early psychological terms, self-fulfilment - the most transcendental need (Canter, 1974). Desires are the individuals' raw material from which ethics begins (Ball, 2003, p 111, citing Nigel, 1991, p 14). Desires are the biological libido transformed into social libido (Bourdieu, 1998). Desire becomes reason through the labour of the third '*Aufhebung*' (Strohmayer, 1997). Hope is an ontological need (Freire, 1992) but the aspirations of humans are modified unconsciously, that is without being noticed, by three processes that are more and more connected to humans: urbanization, industrialization, informatization (Chombard de Lauwe, *op cit*). The manifestations of a culture are marked by a series of

guiding images, of models, and of representations the members of a society refer to in their actions, their work, and their social relations. The study of those images and models in relation to the aspirations and the values that sustain them, along with the techniques, the organization of space, the production, the work, and the consumption, is a part of studying the social transformations (*ibid*). Studying a culture from this perspective might be quite different than that of “an official culture spread in the teaching process or the public services” (*ibid*).

The meaning of the concept of aspirations has not been grasped in the education of architects. One study has tried to show to students the importance of understanding clients’ “needs and wants” both individually and collectively (Sara, *op cit*). Another has pointed out that to understand clients’ “desires”, “conversation” should be an instrument in architectural design education (Jarrett, 2000), but both have missed the issue. The concept of aspirations has been ignored in the context of professional practice (Chombard de Lauwe, 1965). Generally speaking, architects have searched for their clients’ “needs” when it concerns the design of a home. This search is carried on through interviews to define the users or clients’ spaces to be built and experienced, ie, social-architectonic spaces. When the design is related to public buildings such as a school, a museum, or a hospital, interviewing users is seldom used or explored (Dutton, 1996). This deficiency also manifests itself in schools of architecture (Sara, *op cit*; Jarrett, *op cit*). The fact is that when cities are created for an ‘ideal type’ of inhabitant, as viewed by the architect or administrators, there is always a disharmony between the situation created and the aspirations of the people (Chombard de Lauwe, 1960). This illusory action can be overcome by “observing methodically the evolution” of “today’s aspirations” into “tomorrow’s needs” while studying “at the same time the material transformations which progressively operate” (Chombard de Lauwe, 1965; 1969).

In order to accomplish this, it is necessary to search for users’ aspirations through interviews, conversations, and by listening to them. This situation can be named a “pedagogic practice”. In Bernstein’s terms (1999) a pedagogic practice is a fundamental social context where cultural reproduction takes place. The professor-student relationship in the classroom is certainly another “pedagogic practice”. The pedagogic practice might oppose the “pedagogic discourse” in the fight for symbolic control (*ibid*). The pedagogic discourse is a rule that contains two discourses: one of skills or instructional discourse and other of social order or regulative discourse (*ibid*). The concept of pedagogic practice applies to relations between client-and-architect, architect-and-urban planners, and between student and student. For the purpose of identifying and categorizing these relationships the concept of *code* is suitable. In Bernstein’s terms, code is a regulative principle, tacitly acquired which selects meanings, the form of their realization and evoking contexts (*ibid*).

Description of the research process

A guiding concept in this investigation is to explain the process as thoroughly as possible in order to be as objective as possible. This has involved using qualitative (naturalistic observation, in-depth interviews, group interviews, focused interviews) and quantitative (school records, socio-metric and psychometric data) information gathering techniques. One aim of the process is to set a precise relationship of well defined *concepts* (Bourdieu, 1974a, p 22, cites Proudhon), meaning by concept, a bridge between reality and theory (Rose, 1984). The concepts from the literature review helped to formulate several research questions. Prior to carrying out the main field work (which involves ninety interviews), a pilot study using eleven interviews was undertaken. These eleven interviews involved three different generations of students. It is expected that from these interviews a “set of questions and attitude scales will emerge” (Oppenheim, 1997). The main purpose of the interviews was to encourage students to express themselves freely, to know themselves a little bit more, and to gain ground about their conceptualization, notions, ideas, and struggles regarding the process of learning architectural design and its practice. From this pilot stage, I identified two

specific sub-areas to examine further: alienation and identity. Once the 90 interviews are carried out in two series respondents' information will be contrasted against their records and resources; the data or issues emerging from this analysis could be considered as "social facts for explanation" (Fielding and Fielding, 1985). This could be approached firstly by forming two groups to interview: those who successfully finished their courses and are integrated to a social group, and those who did not finish. One more criteria will be formed through constructing interview groups in terms of lower and higher education. Lower or higher education will be the result of their educational capital and related work experienced. The qualitative findings will inform the selection about the focus of quantitative investigations.

Each research stage comprises several moments. The notion of 'stages' involves the researcher and his perceptions of and towards the issues of concern in the time dimension. The first stage of this research started 20 years ago when I had the opportunity of teaching theory of architecture at a state university outside Mexico City. Since that time my concern on how the social class of students affects their performance appeared. In terms of architectonic design a question that arose then was 'How is it going to be possible for a student who has not ever seen a space like those of a museum, a hospital, or a theater, to design it?' A second stage was when I undertook research in Canada leading to a Master of Architecture degree. It was of significance to see the importance McGill's School of Architecture give to 'practice' and to philosophy. A third stage was when I started to teach at UAM-X's program of architecture. Here the idea of constructing knowledge from the concrete to the theory, and from theory to the empirical shed light on my worries about helping students to use the knowledge being transmitted. I identified myself with these two approaches. A fourth stage appeared near to the previous while reading Basil Bernstein's last book. At that time it seemed that a great deal of issues at UAM-X's social space were being described. In a moment within this moment, the reading of Fielding and Fielding (1985) gave support to my idea of using qualitative and quantitative techniques in research. Further readings complemented this notion by pointing out the usefulness of "triangulating" data and theories (Yin, 1992). These last experiences, or moments, might mark the beginning of the present stage. The concept "moment" tries to oppose that of instant: "an instant is a part of the duration when there is no continuity of ideas" (Leibniz, 1704). Therefore I am going to call the parts of this fifth stage, ie, the field work and elaboration of the thesis "moments". Since the research has to be carried out empirically and then involves constructing and reconstructing theories, I will enunciate the moments in a pattern that involves moving forwards, backwards and then forwards again through the issues being considered. For instance, Moment 359 is 'The object of the study', and Moment 1 will be 'Participants of the study: students of architecture in an integrated pedagogic code', one moment more will be Moment 2: Pilot study and so forth. As this paper is a part of the thesis, it is another moment.

Moment 358: initial hypothesis:

1. For three generations of students there is a significant number who do not clearly differentiate between their aspirations and those that the social system presents;
2. For three generations of students there are not a significant number who feel alienated and not integrated to the social group due to differences between their aspirations and those that the social system presents to them;
3. For three generations of students a significant number showed and show symptoms of alienation at the beginning of their studies in the Xochimilco campus due to the difference between its pedagogic practice and the previous school's pedagogic practices;
4. A significant number of graduate students feel the interdisciplinary work and the relationships encouraged in the Xochimilco model helped them to reach their professional goals and to integrate to the social group;

5. For three generations of students of architecture there is a significant number who find unsuitable the space's design, and the arrangement in relation to the kind of pedagogic practice developed.

Moment 3 to 15 and continuing: naturalistic observations of students from module VII to IX

I derived my perceptions mainly from students who are now in module XI. They were 30 male and seven female students between 20 and 26 years. When I knew that we were going to work together for three modules I decided to observe them in the classroom. At the beginning of module VII, I told them that I was doing research about the teaching of architecture and that I was going to be observing them. In this module the class were examining the design of a hospital environment. I observed them as they interviewed the hospital's personnel trying to find their needs. My colleague and I joined them at the hospital and guided them to continue the beginning of the process of designing: to interview users and get acquainted with the site, and the building. Weeks later, in the design studio, they presented the building and site characteristics. Eventually they described users' answers and translated them into needs in terms of spaces' dimensions and comfort, the structure and installations' concept, construction processes, and materials' specifications. We worked through this in tutorials of three hours duration, three times a week in the design sessions, and once a week in the theory of architecture classes of three hours long. As in the case of the tutorials, as students explained their design ideas it gave me the opportunity of identifying their expressions and accents; these along with their clothes were the indicators to consider as indicative of their social class. I identified three social classes: low, middle, and high. Of the 37 students ten were from low class, 21 belong to middle, and six to high class. I knew four of them worked. Tutorials created the space to get acquainted with their attitudes, emotions, and feelings related to the design process and the terms' goal of finishing the renovation and expansion of a state run pediatrics hospital. The 45' to 60' tutorials observed ran in parallel for two groups of three to six students in each group, as my colleague was doing the same with another group in the same classroom. The rest of the class had been encouraged to go over their projects until the time to review came. As there were eight working groups sometimes students received tutorials every other session. These activities meanwhile gave me the chance to observe and to hear the students addressing each other, about their dispositions to work on their own, and their actions in the classroom. In the theory of architecture classes some sessions were carried out with a similar process; in other sessions I presented some topics which were discussed later by the groups of students and exposed to the class eventually. In these sessions I tried to identify similar patterns of actions as those I was finding in the studio sessions. After the sessions I wrote students' characteristics down such as roles in the group, degree of participation, interactions, rituals, exits, and speaking accent. This last one is a characteristic that can clearly give an indication of students' social class. I record the names of the students who had worked to put themselves through school; also about those who seemed to be apart from his or her own working group and the class. I also used a copy of the class' list to highlight them by working groups and to record these last characteristics that seemed to differentiate them more clearly. These various modes of observation provided different sources of observational data. The next section presents my perceptions of students' solidarity relationships. I did this as follows: once I identified the relationships between students I categorized them using the theory of codes. Then I attempted to explain where these students of architecture's actions stemmed from by using the theory of aspirations.

A professor's perceptions on students of architecture solidarity relations, aspirations, and expectations

Students' way of life is gathering to chat, going out, to exchange experiences and ideas, to communicate and to share desires and interests. This applies to students of architecture indeed. The hours devoted to digesting climatic and topographic information about the architectural site; to gather sociological data of potential clients, and represent all this in an 'architectural manner' are enough to create a sense of unity and friendship. Even students who have to work, and hence spend less time at the university, tend to include themselves within the groups that they form -and form them. In UAM-X's degree program of architecture, groups start to form because the curriculum and in the sessions they are required and encouraged to do so. One purpose of working together is to facilitate the design project's investigation. In my view students, form groups mainly by identifying themselves in terms of social class similarities, identification of common interests and ideas then follows. Students sometimes are reluctant to work in groups when they do not know each other well. Frequently the groups they form fracture from the very beginning. They comment that the main cause of this dislocation is lack of disposition to work and incompatibility of time. As the term passes by, most students manage to consolidate their group, to integrate to another group, or to form another. In part as a result of this way of studying some students develop a strong relationship. In the design studio the closeness between and within members of groups regardless of the gender is clear. For certain students of different gender the closeness is represented in a particular way. From my perspective these students' closeness representations are in the form of kissing, hugging, and rubbing classmates. These are performed even during tutorials. This might not differ between the fondness for one friend or another. The degree of closeness grows as they advance in their studies.

Closeness in Mexican society is common. The main sign of it is to shake hands or kissing the other's cheek. Students demonstrate this with greater affection. While this interpretation can be thought of in terms of Freudian determinism or irrelevance it remains a fact that students need to channel their energy. At this age sex drive is not easily controlled as they are still in the process of integrating to a group and the community. Students' closeness is a way of being accepted and to feel included within the social group; it is also one of their desires: to be loved and to love. These students' representations are also probably due to the short time they have to carry out the intensive work that the process of designing implies. In contrast with students' actions directed at others, some of them of lower social class, their pursuit of loving may go beyond the group if there is not someone who belongs to the same social background. Some of the students who do not take or cannot follow these actions seem shy and progress with difficulty in their learning. Another constraint to them is that male students out-number females by three times. The social context affects student interactions. Students' warmth is developing as a code in that community. I am going to call this code, for the moment, 'the adapting code'. I am describing it in this way because it seems students are developing this behaviour in order to help themselves to adapt to a situation not considered, not foreseen, or different to those experienced at home. The adapting code is to some extent the restricted code transformed by the students' years in school and those spent out of the family home.

Whilst the interpretation of 'my' students' aspirations was contrasted against my own experiences as a student in a different educational process and time, a spontaneous comment of a colleague about his students' closeness gave support to my perception. Yet as he also studied architecture in a collection code context his comment has to be viewed as tentative. However, it is worth mentioning these patterns of actions because I had observed them in three other cohorts. The closeness might become important in the light of other aspects that motivate students to get closer to each other and so be expressive. The actions that the adapting code seem to reveal are a way of fulfilling students' aspirations and a form

of communication. Communication by means of these actions has another purpose: to tell their professors that 'we all are one'. Students seem to think: "It's more difficult to fail five students than only one". The sense of unity gives reassurance to students of either social class who do not want to or can not engage in these actions with their fellows, but who are in need to pass a course due to a lack of skills or commitment. For them such a form of communication might be doubly helpful. Certainly students' failing will depend to a great extent on the professor's disposition to accept students as equals. Students complaints that "the professor did not like me" while not frequent are recurrent. This is manifested even in students of middle class background and with good communicative skills and design dexterity. The idea that power is exercised in the classroom holds true here. This side of the problem has to be found within some professor's ego, superego or libido. This aspect, although not addressed in this research, enhances the importance of the adapting code. The message that the adaptive code reveals, ie, solidarity, friendship, closeness, warmth, helps some students to feel secure or insulated, as it is a form of opposing the power of the different hierarchies.

There is at least another action of solidarity within the students: students' rejection or lack of disposition towards the process of learning. This is represented in different ways. One is being critical towards the activities in the classroom. Another representation takes the form of an unwillingness to develop activities and not to facilitate the process of learning, either in the studio or out of it. It might be fair to say that these actions also stem from observing professors and administrative workers postponing deadlines and tasks themselves with apparently little negative effect. This hidden communication seems to be a part of the game played by the community at different levels of its hierarchies. It is possible that when students have observed this sort of behaviour they incorporate the behaviour into their own approach, with the same result. This behaviours hidden communication might encourage students of middle and high social classes to try such approaches relying on their economic assurance and advantageous understanding of the regulative discourse to challenge the process of education regarding it as (Bernstein, 1997), easy or like a joke. Worth mentioning is that the sort of communication mentioned is also present in students of lower social classes. As the hidden communication is a part of the game played by the community in the different levels of hierarchies it becomes relevant to them. Hence, and in order to be accepted, students of low social class have to play the same rules of the community even if they are not wholly identified with it and with the other groups. These kinds of attitudes might be considered another code. I am going to call this sort of communication the dysfunctional code as it deters the process of education.

The brilliant student is welcome regardless of his status: this is the student who can clarify the issue the professor did not explain well; he or she is the fellow who is able to organize the team. For this kind of student he (and perhaps she), belonging to a lower social class, may increase their chances of being included within the community. However, for this category of students the professional and social goals might be remote due to the possibilities the profession itself offers. As a matter of fact, their professional goals might be counter-related to their *own expectations*. These contradictions exist because of:

- a) the different forms of practice of this field have a restricted number of positions available and the salaries will not help them significantly to improve their way of living or aspirations;
- b) in the practice of architectural design, architects from private schools or from a middle to high social class, are considered more appropriate for design; this bias restricts more students of lower social class in gaining access to a job;
- c) as some students expect only "to have a decent job and a salary" they reinforce the profession's hidden regulations.

While students as a group are not homogeneous, some common factors, determine and change their way of living. This is possible because the factors -external to them pervade the whole society: publicity with its messages from the dominant economy. The actions that the adapting code seem to reveal might be explained by Chombart de Lauwe's - suggestion (1965; 1969) that stress creates a sense of restraint and excitement in them due to an unsuitable use of time, and contradictions between their values at home and what they see in every day life by means of instruments imposed by the dominant economic system.

Before going further into students' behaviour, kinds of communication and relationships, it is necessary to consider their probable feelings and emotions as a result of the pedagogic practices they experience and the hierarchical relationships with their professors in and out of the classroom. During sessions in the classroom students aspire to get concrete examples from their professors. A professor's comment recalling an experience with a client of his, help's to illuminate students' faces. In one session my colleague added to an experience with one of his clients a humorous touch. At that time students' delight was noticeable, and after that moment, a sense of relief and encouragement permeated the classroom. The experience of a professor presenting to students might be motivating to them because they are aware of the profession's constraints, and the fact that one of their professors had clients opposes that situation. This rationale might also explain students' fondness for the perception of the architect's image as a well-to-do person ie, someone who is well dressed, and drives a luxurious car. When a professor's appearance resembles this 'architect's' image, (that of a common architect, ie, that portrayed by the media), students seem to pay attention to him or her. To a young student a professor who does not wear a suit and a tie might be communicating not having had a job or not being successful. I will call all these actions the profession's historical code.

Strikingly, this "*image guide*" is even more accepted if the professor uses *bourgeoise* language or "university language" in the sense of Bourdieu (1974b). I derived the perception from two situations experienced in two different terms, one with the colleague who was working with the class I observed, and the other with another colleague in a previous term. The colleagues and I were wearing formal suits, and in both cases students' preference was directed to the professor who spoke formally. Support for this interpretation lies in the reaction of the professors that were not "chosen" by students: they began to be more authoritarian with them and with their colleagues. These professors' behaviour affected another aspiration of students: to be treated with respect. But before considering this, it is necessary to raise a question regarding students' preference for "academic language": why could this sort of communication be the preference of students? Perhaps the following students' aspiration could open a space to speculate about it. Students of architecture at UAM-X also hope to be treated with respect or as equals from their professors. In some groups of Mexican society the first sign of respect within a job relationship is to address each other with the pronoun 'usted' instead of 'tu'. If this communication includes a 'por favor' (please) students seem to receive professors' suggestions with enthusiasm. A sign of this acceptance is their compliance with duties in the classroom, assignments and tasks scheduled. To what extent this type of communication helps them to advance in their studies and to affirm their self-stem is something to be investigated. Nevertheless it is possible to say now that students' preference for a professor who communicates politely might give support to my perception that students prefer "academic language": they might equate it with an educated person who respects subordinates.

Moment 353: another hypothesis:

6. Students' social class does not obstruct them in communicating their designs and achieving 'architectural representation' if they practice in a design office, and, or in the site.

Summary and implications

To search for students' dispositions and attitudes, and its interconnectedness with the *Xochimilco model* and its effectiveness to aid students to reach their aspirations it is necessary to bear in mind that a) most students come from schools with educational processes different to that of the UAM-X's degree program of architecture; b) the term's length might restrict the process of design; c) students as a group are not homogeneous and therefore their cultural capital varies. The theory of codes, the sociology of aspirations and the concepts regarding the forms of capital students possess seem useful tools to analyze longitudinally the trajectories of three generations of students in this program. At this stage of the research naturalistic observations suggest that students of the last modules are developing patterns of actions as forms of communication. A number of these tend to fulfill some of their desires and to create a sense of solidarity. These actions are in part due to intensive work with limited time to design that set them in continuous stress. Another source influencing students' patterns of communication and actions are the community's games and rituals they follow everyday. The work to date has produced queries about students' lack of sense of place and empowerment in and out of the university. Also questions regarding the use of the concept of aspirations in teaching architecture: does it help to fulfill students' aspirations of a 'different' educational practice? Students of architecture would be interested in searching for and looking at the aspirations of humans in order to a) design and to build a better environment, b) to educate others in society. I intend to examine these and the other research questions as my research continues.

References

- Ball, S. (2003) *Class Strategies and Educational Market: The middle classes and social advantage*. London: Routledge Falmer.
- Bassani, T. (1998) Diseñar diseñadores: reflexiones sobre la docencia en diseño. *En Síntesis*, 4, III-VI.
- Benevolo, L. (1978) *The Architecture of the Renaissance*. London: Routledge and Kegan Paul.
- Bernstein, B. (1975) *Class, Codes and Control vol. 3: Towards a Theory of Educational Transmissions*. London: Routledge and Keagan Paul.
- Bernstein, B. (1996) *Pedagogy, Symbolic Control and Identity: Theory, Research, Critique*. London: Taylor and Francis.
- Bernstein, B. (1997) Class and Pedagogies: Visible and Invisible, in A. H. Halsey, H. Lauder, Ph. Brown and A. S. Wells (eds) *Education, Culture, Economy, Society*. New York: Oxford University Press.
- Bernstein, B. (1999) Official knowledge and pedagogic identities, in F. Christie (ed) *Pedagogy and the Shaping of Consciousness*. London: Casell publishers.
- Bojalil, L. F. (1981) Una nueva opción en la educación superior: el sistema modular, in G. Guevara N. (coord.) *La crisis de la educación superior en México*. México: Nueva Imagen.
- Bojalil, L. F. and Molina, A. E. (1985) La creación de la UAM, in A. E. Molina (coord.) *Diez años en el tiempo: Reseña histórica de la unidad Xochimilco 1974-1983*. México: Universidad Autónoma Metropolitana.

- Bourdieu, P. (1974a) *Distinction: a social critique of the judgment of taste*. London: Routledge and Keagan Paul.
- Bourdieu, P. (1974b) L'autorité pédagogique, in A. Gras (ed) *Sociologie de l'éducation. Textes fondamentaux*. Paris: Librairie Larousse.
- Bourdieu, P. (1984a) *Homo Academicus*. Great Britain: Padstow: T. J. Press.
- Bourdieu, P. (1984b) *Sociología y Cultura* (ed) México: Grijalbo S. A.
- Bourdieu, P. avec Loïc J. D. Wacquant (1992) *Réponses: pour une anthropologie réflexive*. Paris: Éditions du Seuil.
- Bourdieu, P. (1997) Forms of Capital, in A. H. Halsey, H. Lauder, P. Brown and A. Stuart Wells (eds) *Education, Culture, Economy, Society*. New York: Oxford University Press.
- Bourdieu, P. (1998) *Practical Reason: On the theory of action*. London: Polity Press.
- Bourdieu, P. and Passeron, J. C. (1964) *Les héritiers. Les étudiants et la culture*. Paris: Les Éditions Minuit.
- Bourdieu, P. and Passeron, J. C. (1977/1990) *Reproduction in education, society and culture*. London: Sage.
- Bunge, M. (ed) (1983) *La investigación científica*. Barcelona: Ariel.
- Canter, D. V. (1974) *Psychology for Architects*. London: Applied Science Publishers.
- Chombart de Lauwe, P. H. (1960) *Famille Et Habitation li: Un essai d'observation expérimentale*. Paris: Centre National de la Recherche Scientifique.
- Chombart de Lauwe, P. H. (1965) *Des Hommes et des Villes*. Paris: Denoel.
- Chombart de Lauwe, P. H. (1969) *Pour une Sociologie des Aspirations; elements pour des perspectives nouvelles en sciences humaines*. Paris: Denoel.
- Denés, M. (1998) Quelques questions autour d'une épistémologie de la pratique, in H. Dunnin-Woyseth and K. Noschis (eds) *Architecture and Teaching: Fondements épistémologiques*. Lausanne: Association Europeene pour l'enseignement de l'architecture.
- Dunnin-Woyseth, H. and Noschis, K. (1998) Introduction, in H. Dunnin-Woyseth and K. Noschis (eds) *Architecture and Teaching: Fondements épistémologiques*. Lausanne: Association Europeene pour l'enseignement de l'architecture.
- Dutton, T. (1996) Cultural Studies and Critical Pedagogy: Cultural Pedagogy and Architecture, in T. A. Dutton and L. H. Mann (eds) *Reconstructing Architecture, Critical discourses and Social Practices*. USA: Technical University of Minnesota.
- Dutton, T. and Mann, L. H. (1996) Introduction: Modernism, Postmodernism and Architecture's Social Project, in T. A. Dutton and L. H. Mann (eds) *Reconstructing Architecture, Critical discourses and Social Practices*. USA: Technical University of Minnesota.

- Fielding, N. G. and Fielding, J. L. (1985) *Linking Data: The articulation of Qualitative and Quantitative Methods in Social Research*, in M. Shipman (ed) *Educational Research: Principles, Policies and Practices*. Great Britain: The Falmer Press.
- Freire, P. (1997) *Pedagogy of hope: Reliving Pedagogy of the Oppressed*. New York: Continuum Publication.
- Gutman, R. (1988) *Architectural Practice: a critical view*. USA: Princeton Architectural Press.
- Jarrett, Ch. (2000) Social Practice: design education and everyday life, in D. Nicol and S. Pilling (eds) *Changing Architectural Education*. London: Spon Press.
- Lee, D. M. (1999) Back to School. Architects sound off on 10 critical issues facing architectural education. *Architectural Record* , 9, 112-120.
- Leibniz, G. G. (1704) *Nuevo tratado sobre el entendimiento humano*. México: Ed. Porrúa S. A.
- Lewis, R. K. (1985) *Architect?: a candid guide to the profession*. USA: MIT University Press.
- López, R. (2000) *Una historia de la UAM: sus primeros 25 años*. México: Grupo Noriega Editores.
- Louw, H. (1998) Shadowed Substance: An Epistemological Doodleboard for Students, Teachers and Practitioners of Architecture, in H. Dunnin-Woyseth and K. Noschis (eds) *Architecture and Teaching: Fondements épistémologiques*. Lausanne: Association Europeene pour l'enseignement de l'architecture.
- Morgan, M. H. (1914) *Vitruvius: The ten books on architecture*. New York: Dover Publications.
- Norwegian National Commission for UNESCO. Universitetsforlaget (1969) *Students' aspirations and participation*. Final report on students' aspirations and participation of students in university management: 4-9 August 1969. Oslo: A.s Joh. Nordahls Trykkeri.
- Núñez, T. and Roazzi, A. (1999) Education, Social Identity, and Occupational Aspirations in Brazil: Reasons for (not) learning, in F. Leach and A. W. Little (eds) *Education, Cultures and Economics*. New York: Routledge Falmer.
- Oppenheim, A. N. (1997) *Questionnaire design, Interviewing and Attitude Measurement*. London: Printer Publishers.
- Pérez-Gómez, A. (1986) *Architecture and the crisis of modern science*. USA: MIT University Press.
- Prew, M. (1993) *The effects of changing in the political economy of a less developed country on the educational and occupational aspirations of a peri-urban school students. A Zimbabwean case study*. Master's dissertation. London: Institute of Education.
- Purcell, K. (1996) *Great expectations: the new diversity of graduate skills and aspirations*. Manchester: Higher Education Careers Service Unit.
- Robaye, F. (1957) *Niveaux d'aspirations et d'expectation: Criteres de Personnalité*. Paris: Presses Universitaires de France.
- Rose, G. (1984) *Deciphering Sociological Research*. London: The Macmillan Press.

- Sara, R. (2000) Introducing clients and users to the studio project: a case study of a 'live' project, in D. Nicol and S. Pilling (eds) *Changing Architectural Education: Towards a new professionalism*. London: Spon Press.
- Scott, G. (1914) *The Architecture of Humanism: A study in the history of taste*. London: W. W. Norton and Company.
- Strohmayer, U. (1997) Belonging: Spaces of Meandering Desire, in G. Benko and U. Strohmayer (eds) *Space and Social Theory: Interpreting Modernity and Postmodernity*. Great Britain: Blackwell.
- Teymur, N. (1992) *Architectural Education: issues in educational practice and policy*. London: Question Press
- Valenti, G., Varela, G., Villagarcia, L., Babinsky, A., Dzib, L., Salas, Ma. Del C., Adame, M., González, L., Ontiveros, N. (1995) *Empleo y desempeño profesional de los egresados de la UAM*. México: Universidad Autónoma Metropolitana.
- Veness, T. (1962) *School leavers: their aspirations and expectations*. London: Methenn.
- Villareal, R. (1974) *Documento xochimilco*. México: Universidad Autónoma Metropolitana Xochimilco.
- Wolfe, T. (1981) *From Bauhaus to our house*. New York: Washington Square Press.
- Yin, R. (1992) *Case Study Research: Design and Methods*. London: Sage Publications.