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## ► To cite this version:

Bettina Horsch, Pauline Ouvrard. Learning from spatial capital in architectural education Tools and perspectives: the case of the Nantes school of architecture, France. Educating the Cosmopolitan Architect: ACSA/EAAE Teachers Conference, Association of Collegiate Schools of Architecture (ACSA), Jun 2023, Reykjavik, Iceland. hal-04297509

**HAL Id: hal-04297509**

**<https://hal.science/hal-04297509>**

Submitted on 21 Nov 2023

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# Learning from Spatial Capital in Architectural Education - Tools and Perspectives : The Case of the Nantes School of Architecture, France

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**Keywords:** Spatial capital, students, architectural education

**This article aims to seize the “spatial capital” as a notion to question the way in which space is taught in Schools of Architecture, both “in” and “outside” the walls. It being understood that spatial capital, following Pierre Bourdieu’s capital theory<sup>1</sup>, “is the sum of the skills acquired by an individual or a group of individuals in the field of space mastery. [...] It describes the way in which space, in particular its use, its knowledge and its control, are the subject of learning which is a social and cultural construct. Spatial capital covers the ability to move around, to control, to dominate and to transform a space”<sup>2</sup>. Thus, we start from the premise that the Schools of Architecture are institutions whose vocation is to transmit a specific capital to future architects – and it is this “specificity” that we intend to question and criticize. From the crossed trajectories of architecture students, we will discuss the way in which the spatial capital of future architects is built “in” but also “outside” the School, by particular space-times which are spread out over the long term. We will focus our attention on what the institution does to students’ spatial capital, and more particularly how it transmits, compensates, distinguishes, but also reproduces specific spatial skills through teaching methods, theories and doctrines provided.**

## **EXPLORING THE CONCEPT OF SPATIAL CAPITAL TO UNDERSTAND THE SOCIALIZATION PROCESS DIFFERENTLY**

During our research, a line of work emerged on spatial capital as a possible key to understanding how students socialize with architecture. It gradually appeared that the concept of spatial capital would be a good way to investigate to better understand how students’ relationship to space evolves and is shaped during their studies. It also informs us how previously constituted spatial capital determines their way of socializing according to their representations of space and architecture. To make the concept of spatial capital operational, we start from the postulate that space is at the heart of the training of architects.

Thus, the School of Architecture would be an institution that trains students in the observation, analysis and transformation

of space. This training would endow them with a specific culture of space through the transmission of arts of thinking and projecting architecture and space. How do students develop spatial capital prior to their studies? How does this prior spatial capital impact the architectural socialization of the students? How does the School equip students with specific spatial dispositions and what effects do these dispositions have on their prior spatial capital? How does the School encourage students to question, shift and enrich their initial spatial references?

Spatial capital would depend on their socio-economic and cultural origins. The prior spatial capital would guide the way in which they represent themselves, apprehend and invest their studies (through their ability to mobilize initial spatial references). The prior spatial capital (and the spatial repertoire that accompanies it) would endow them with a more or less legitimate culture of space (or more or less recognized by Schools) which would directly impact their socialization to architecture. The cross-analysis of the trajectories of the respondents confirms the impact of primary (family) socialization on prior spatial capital (spatial practices including modes of living, mobility, culture of specific space through extra-curricular training, etc.). Secondary socialization (high school in particular) also impacts prior spatial capital (culture of space “inside” and “outside” the walls, through class trips, literally and figuratively) and allows some respondents to “compensate” for spatial skills valued by the School of Architecture. Discussions with teachers or internship supervisors during high school is cited by some as part of an opening to other spatial references, or even as opening the way for them to enter architectural studies.

Architectural studies would provide students with specific spatial aptitudes by what is transmitted “in” and “outside” the walls. These spatial dispositions would enrich, reinforce and/or displace their prior spatial capital. The arts of doing and thinking provided by Schools through disciplinary teaching would promote a certain type of spatial culture and related spatial repertoire (legitimate/illegitimate) and therefore promote forms of socialization.

In order to illustrate our point, we will retrace what contributes, during the studies, to the acquisition of a specific repertoire of

spatial action, whether short or long so-called “field” immersions during project studios or study trips, as well as so-called “professionalizing” experiences such as internships, or other educational devices. A more prospective part will open on what prior and transmitted spatial capital augurs as pedagogical horizons.

Through this research, we discuss the updating of the determinisms at work, but also what makes it possible to counter them through the figure of the “space defector” (in reference to the class defector). To support our argument, we will also rely on a more ethnographic corpus of pedagogical experiences lived by the two authors, including study trips to Rome, a teaching partnership with École Supérieure du Bois (Wood Engineering School), the Solar Decathlon Europe 2014, etc.

The corpus is based on two qualitative surveys aimed at documenting the students’ trajectories of the Nantes School of Architecture over the past ten years<sup>3</sup>, part of which focuses more particularly on the way in which the spatial capital of students is shaped over time, of their trajectory, from childhood to professional integration, via architectural studies. Approximately 250 semi-structured interviews have been conducted several years after graduation (“trajectory survey”). To counter the bias of the narrative told a posteriori, a more recent ongoing survey completes the research device with filmed interviews of a cohort of ten students who entered School in 2021 and who are interviewed once a year until their professional integration around 2026 (“documentary survey”).<sup>4</sup>

## **FIRST RESULTS ON THE PROCESS OF ARCHITECTURAL SOCIALIZATION THROUGH THE PRISM OF SPATIAL CAPITAL**

### **SOCIALIZATION TO ARCHITECTURE AND SOCIAL CLASSES: BETWEEN REPRODUCTION AND DISTINCTION**

The “trajectory survey” revealed a close link between social classes and professional integration, confirming social determinism. Thus, social inequalities are replayed both at the entrance and at the end of architectural studies. We also analyzed the trajectories of students who contradict social determinisms in order to understand what role plays the school. Thus, the “documentary” survey encouraged us to track, from the filmed interviews, the social markers both through the descriptions that the respondents make of their backgrounds and practices, and through the way in which they recount and arrange these descriptions. It is a question of understanding how this way of telling evolves (or not) over the interviews, in parallel to their acculturation to architecture.

The first two series of interviews have thus brought to light the importance of the social, cultural and economic background of the students in order to fully understand the way in which

they apprehend their studies and get involved, and how they socialize. The social status, the level of education and the cultural background of the parents are more or less close to that of the architectural milieu. While some will have pre-socialized in the midst of architecture before studying, others have little or no prior socialization. The trajectories analyzed testify to the way in which the social background and primary (family), then secondary (school) socialization shape the ability of students to socialize more or less easily and quickly with architecture. These gaps are depending on the position of the respondents on the social scale. To claim that the student status would reshuffle the cards and level out inequalities would not be honest. Indeed, the importance of the social, economic and cultural background immediately impacts the first steps at the School of Architecture. Some are very comfortable, where others will be confused, even distant from the concerns of studies because too busy trying to earn a living, to find accommodation.

## **SOCIALIZATION “IN” AND “OUTSIDE” THE SCHOOL**

The School offers a framework, a frame of reference and opportunities for socialization through its decorum (its spaces and their capacities)<sup>5</sup>, the training provided, the activities and the student life that unfold there. The School offers a potential for socialization which the students discover as they become familiar with the School as a place and an institution. It is a potential which they more or less manage to seize and make fruitful according to their prior path. This potential also unfolds “outside the walls”, and sometimes reinforces, but also collides with, or displaces (pre)established representations and requires adjustments.

Over the course of the interviews, the respondents testify to their discovery and their progressive appropriation of the establishment. The School, from its surroundings to its amphitheatres, passing through its project studios, its workshop, its library or its corridors, gradually becomes a familiar space, following the successive appropriations by the students, between formal and informal uses. Student life, through friendship or associative activities, as well as the classes allow the students to invest the different spaces. Group work, the production of models, intensive work formats, are all situations that promote dialogue between peers “within” the walls, on the periphery of the lessons. Several testimonies converge on an attenuation of the limits between studies and private life which gradually spread around the School, concentrating most of the activities and the time of the students.

If for some School attendance is above all a place of learning where they only pass through to take lessons, for others it quickly becomes “more than a School”, a “second home”, an extension of cramped student accommodation, especially in the first years when students have not yet grouped together in shared accommodation. Also, the School seems to be more appropriated by those whose families are geographically distant and those whose accommodation is close to the institution. Similarly, affinities

and friendships seem to have spatial reasons and resonances. Respondents describe the importance of the group of friends, formed almost immediately “from the first day, on the lawns [in front of the school building]”, or during the semester when group work contributes to socialize between peers that goes far beyond the framework of university work. Thus, socialization also takes place, by mimicry and distinction, between groups of friends discovering together the milieu of architecture. It can be in an individual way (depending on life stories and prior social positioning) but also largely as a collective experience. Beyond the group of friends of the same school year, students build relations with peers of the upper years who seem to play a spurring role, particularly a form of mentoring.

“Outside the walls” offers specific space-times of socialization which tend to unframe the relationship between students and teachers, but also between peers. Study trips in full promotion (to Paris in the first year, to Rome in the second year) or partial (to a European capital in the third year), field surveys during tutorials in sociology or on-site immersion during project workshops, but also more individual experiences such as internships, are all opportunities to socialize with architecture outside of school.



Figure 1. Study trip to Rome of second year students. Credit: ENSA Nantes.

Thus, we can question the way in which experiences “outside the walls” - whether they are part of an educational framework or “all against” - shape the trajectories of architecture students and endow them with a specific spatial capital. The figure of the “pass-through” would make it possible to explore the type of borders (disciplinary, scalar, social but also more symbolic, etc.) that the students collide with, cross or from which they free themselves during these experiences. It is a question of understanding how the students foster the acquisition of knowledge, know-how and interpersonal skills, in particular between peers. The concept of “space defector” (like the “class defector”) might help as a possible characterization of these future architects.



Figure 2. Solar Decathlon Europe 2014. Team Atlantic Challenge with students of the School of Architecture and two Schools of Engineering. Credit: ENSA Nantes.

### LEARNING TO BE “PART OF THE BODY” : BETWEEN INCORPORATION AND CORPORATE EFFECTS

Over the course of the survey, the notion of “being part of a body” emerged to explain the way in which the process of socialization affects both the body of the respondents and the social body they constitute. Thus, the architectural acculturation “in” and “outside” the walls affects the bodies and modifies them through the ethos, the posture, the clothes, etc. The voice of respondents is also impacted, as well as by phrasing and diction. The first series of interviews reveal the first signs of these transformations. From one interview to another, the respondents no longer occupy the space in the same way: the posture of the body, the posture of the head, the way of putting the voice change. The voice is louder, the movements fuller. The regional or foreign accent is attenuated, has almost disappeared. New words or phrases appear. The bodies are accessorized, such as the bracelet of Archiculture (annual festival organized by the Schools’ associations) that some have kept once the event has passed in the manner of nostalgic festival-goers.

How is architectural socialization (as a milieu and as a discipline) incorporated? The premises of this long-term research provide the first elements of understanding the way in which the bodies of the students are put “on trial”, from the first week of their first study year, at a dance workshop intended for the entire promotion. The newcomers are invited to come into contact with architecture through the school building and the bodies of others. This introductory workshop, which elicited many reactions from respondents during the interviews, testifies to the first forms of socialization by the body and describes forms of learning by the body or by putting the body “on trial”.





Figure 3. Archiculture, dinner of the annual festival organized by the students. Credit: ENSA Nantes.



Figure 4. Dance workshop during the first week of the first study year. Credit: ENSA Nantes.

Acculturation to architecture is incorporated through the confrontation of the body with spatialities, through surveying and manipulation. Students practice “taking the measure” of the spaces crossed, to grasp their atmospheres by summoning their five senses. These trials of the body, in and through space, would contribute to the acquisition of a specific spatial repertoire. The eye and the hand are particularly solicited, by learning observation and drawing. To learn to look at space, to understand it, to decipher it, to describe it, but also to represent it, is one of the major activities of architects apprentices, accompanied by teachers, but also by practicing with peers. The confrontation of the body with the full-scale model during the project studio, drawing classes, but also visits of buildings previously studied in books are cited by respondents as highlights, where architecture is incorporated, where students are learning by direct confrontation of the body with spaces. The acquisition of the arts of doing and thinking would then take place in different stages and by iteration “between” and “outside” the walls of the School. This iteration would promote the successive incorporation and adjustment of representations and practices. The body is also put to trial by the rhythm of studies and the rite of the “charrette” [french : period of intensive work]. If one of them proudly recounts his first sleepless night, others explain that they were made aware of the risks of lack of sleep and the impact on their health from the start of the school year.

Another possible mobilization of the notion of “being part of the body” is that of the “social body” of the School of Architecture. It is a group of belonging in which the students will gradually immerse themselves, from the animated discussions between peers on the lawns in front of the building to the classrooms or project studios, via the library, the university restaurant, etc. Students socialize through their peers (between so-called circumstantial socialization, friendships, love stories, etc.), concomitantly but at their own pace, between mimicry and distinction. Socialization takes place “in reference to...”: one or more teachers, or students of higher classes, between identification, ripple effect, and reproduction. The inculcation of the architect’s habitus is punctuated by repetitive rites of passage (the rendering of the project and its oral presentation, the sometimes mythologized charrette). The teacher-student relationship, of which the teaching of the project would be the most emblematic, is at the heart of the professional socialization of architecture students. They are confronted with a formal curriculum, whose assessment methods are poorly explained, and a hidden curriculum that requires them to appropriate themselves the values, attitudes and implicit standards that govern the profession. Several respondents report how studies and the School of Architecture have gradually become a primary concern – a total social space-time or *topoi*<sup>9</sup> – which occupy their daily thoughts and activities without interruption. They evoke the project teaching that monopolize their minds. Study trips are very important: Living together and sharing common experiences and references would seem to be a major part of socialization, recognition between peers and corporate effects.

## SOCIALIZATION, BETWEEN MANUFACTURING REPRESENTATIONS AND DISCOURSE

Socialization in architecture is a long, non-linear process. Initiated before studies, it shapes their representations and guides their ways of entering them. Socialization takes place in successive stages and involves invisible work of the respondents, which consists of adjusting their representations and their interpretations of the context as they progress. By encountering different situations (crucibles, rites of passage, etc.) they seem to comply by acquiring the arts of doing, thinking and behaving (sometimes involving forms of trial and error, questioning, resistance). Students act as interpreters whose activities would be a concomitant narration of the emergence of an individual and collective reflexivity. The socialization process would be accompanied by a discursive dimension where students, in order to produce meaning and appropriate themselves what they do, summon several registers of discourse and narrative forms<sup>10</sup>. This individual and collective narrative thus participates in an “invisible work” which consists of shaping and adjusting their representations, by trial and error, successive successes and failures before managing to produce meaning.

The description of a typical week, a recurring question asked in each series of interviews, highlights the blurring between the private and the academic sphere. It also shows how the respondents seem to initially socialize in a disciplinary, partial and fragmentary way, by juxtaposition of the activities carried out. The testimonies collected attest to a difficulty in making the link between the different teachings provided and a vagueness on what architecture covers as a discipline. It makes it difficult for the students to get a better idea of the studies and the professional horizons that open up to them. They seem to be groping and a whole part of their activities is dedicated to understanding what they are doing, and what their teachers, the school, and the professional milieu expect of them. Some respondents refer more specifically to their project teachers, whom they often see and identify as referents. Socialization in architecture is therefore accompanied by a permanent activity of interpretation and translation, carried out individually, but also by successive adjustments between peers, with reference to their elders.

## PROSPECTIVE/ VISION TOWARDS “SPATIAL CAPITAL” TO TEACH ARCHITECTURE

What does prior and transmitted spatial capital augurs as pedagogical horizons? How could it be implemented into the curriculum? What could be a cosmopolitan spatial capital for architects delivered by a School of Architecture?

Such a curriculum would imply to criticize and objectivize the type of space culture and practice Schools transmit and reproduce. We need to quantify and qualify the project supports, typologies and theoretical backgrounds of space production proposed to the students. This analysis should orient, increase and improve

the repertoire of spatial action and spatial culture in order to compensate, or even counter for prior social determinisms.

We should also offer teaching modules that provide students with an understanding of what is at stake during their studies, and an understanding of how work the “architecture worlds”<sup>11</sup> in which they will circulate, exercise and transform. Thus, we propose since recently a module which offers students the opportunity to grasp the functioning of the socio-professional environment of the production of space through the places, roles and positions occupied by architects, multi-positioned actors of the “architectural and urban factory”. During the semester, the students carry out an interview survey entitled “Portraits of architects”. This study contributes both to helping students to confront their representations with those of “real” architects and to participating in research work carried out for a better knowledge of professional trajectories.

Ultimately, acquiring spatial capital should enhance students to become experts of transdimensions of space, crossing time, scales, uses and ambiances to transform and perform the social and environmental challenges.

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