As our experiment in architecture pedagogy might be considered a work in progress, we agreed to engage in a series of dialogs – a type of *entretien* between collaborators – in order to open up new perspectives and, most importantly, to challenge the routine of the well-oiled teaching machine that we had created and that was running on its own momentum, so to speak. So, let me begin with a first provocation. When you joined our team several years ago, you courteously implied that it was time to investigate new avenues of thought and to deviate from the methods outlined in our first book on teaching, titled *Inchoate. An Experiment in Architectural Education*. Your assessment took two lines of attack. First, the theoretical framework of our operation seemed to support a certain category of institutional discourse, the domain of the so-called critical project – with a bias in favor of rational interpretation, analytical method, and academic corroboration. Instead, you argued for a projective practice as a potential trajectory for teaching. Second, the physical outcome of the students’ work – despite the emphasis placed on the design of processes – gave the impression that a specific formal vocabulary or style was proactively being advocated. Instead, you made a case for a performative rather than formal approach to architecture. Although initially painful, both observations touched upon issues that had entered our teaching methods inadvertently. What was most bothersome about the critique was that it pointed to a trap into which we had fallen, while trying too hard to swim against the current. Our teaching accidentally propagated an *architecture with a capital A*, *architettura maggiore*, or *major architecture*, as some would call it. This is exactly what we wanted to avoid. Our didactic matrix, as you implied, was somehow reinforcing an understanding of architecture as an institutional body and a formal discipline, unwillingly reinforcing the status quo. Had we reached an insurmountable barrier or dead end? Were we going around in circles? And, it is in this regard that an opening was made, subjecting our teaching to a series of displacements – from which one could not emerge unscathed. The solution to our predicament seemed quite simple at first. Rather than opposing the established order of things, we embraced it wholeheartedly – but with a twist: by proposing a way of working both *with and against* the procedures producing this order. These procedures – the operative mechanisms of everyday practice, the median standard and
normative action – are all aspects by and large ignored by the formal discourse. Thus, emphasis was progressively placed on what could be termed an architettura minore, or minor architecture as the terrain within which teaching and learning could maneuver. While there are many ways to enter the field of architecture, this one uses the covert strategy of the Trojan horse: infiltrating a given system’s practices in order to subvert it. One might suggest that our work had acquired a different political dimension. With your criticism a new question had been raised: what are the political undercurrents of any architecture of education?

>> DH: I think it is important to acknowledge that we are operating in a political system in the first place. Architectural education has a public side to it. Through discussions, reviews, exhibits etc., instructors and students must continually expose their own convictions and be prepared to defend them. Part of the instructors’ responsibility is to give such courage to students, cultivating their own beliefs, standing up for them when necessary and encouraging them to take risks, even if it means being vulnerable. The promotion of this kind of active engagement is part of the conviction that we, as architects, need to be involved – we need to act, not just react. Therefore we should also be willing to change a system even if it is the one that we ourselves put in place. Then we act again. We also need to carry on this discussion in view of the large number of students beginning their studies at the Department of Architecture every year. With almost 300 new students annually, the question for me is what the potential of such numbers could be. I think we should encourage and cultivate the students’ naïveté. To this end, I find it important that we do not view the discipline externally with the students, but rather start inside with that which all these 300 students are familiar with and those things they already bring with them. Our role is then to draw these aspects out and encourage them to rely on their own backgrounds. Based on the students’ experiences in the world, we can instigate certain processes whose logics are consistent and controllable but whose outcomes are unpredictable. My critique of the course in the Inchoate-era revolves more around the fact that the playfulness, which was strongly emphasized in order to stimulate and cultivate the love for the discipline, produced results whose content was difficult to discern or differentiate, particularly by the students. The work unintentionally became reduced to its formal qualities, which in turn became the only criterion for evaluation. Rather than opening up a discourse, as was originally intended, such work actually closed it down because only conversations about personal preference were possible. This was making the work too detached from a objective discourse. Furthermore, the link to everyday que-
sions and preoccupations outside the university was lacking. To me there was a risk of regarding the study of architecture as something separate from life – as something that is confined to the classroom. This also results in what you call architecture with a capital A: architecture as a purely academic and institutional discipline. With such concerns in mind, what emerges is the possibility of focusing this playful attitude on the very aspects of the everyday, the norm and the standard, in which the students are already operating. In other words: Inchoate is almost all right!

>>> MA: The term *inchoate*, meaning “just begun,” “incomplete” or “undeveloped,” implies a beginning. Our part in the educational structure of the Department of Architecture at the ETH Zurich is the overture of the game, the opening move of the game so to speak, teaching architectural design at the introductory level of the curriculum. And, as you correctly observe, this 101 course is furthermore framed by the mere circumstance that a very large number of students attend the class and that our teaching is limited to a short period of time. In other words, we are obliged to address the challenge of quantity and its relation to quality – a very timely subject matter that is at the center of contemporary mass culture. As Friedrich Engels acknowledges, a drastic increase in magnitude, when exceeding a certain threshold, gives rise to new forms of organization.2 Compared to design courses taught at other universities, which are often based on the masterclass system and have a small number of students, the transition to another scale of operation – from the individual to the collective – calls for other methods of teaching and learning. “Multiplied by hundreds of bodies and compressed into the equivalent of a few weeks, what is in fact here required,” Robert Somol suggests, “is a specific form of organizational thinking” – what he terms an “architecture of education” or “operation architecture.”3 Taking exception to traditional approaches thus brings a discourse on method to the foreground. It highlights questions of “how” and of the design of processes, while continuously renegotiating and redefining the “what” and “why.” Accordingly, we are dealing here with the question of performance. Addressing the exigencies of architectural production, the work on process informs and transforms tacit assumptions and predefined objectives. I am talking about the design of the very pragmatic necessities and the logistics required for operating within a framework characterized by time constraints and large numbers – for both the faculty and the students, in the context of both the studio and contemporary practice.

>>>> DH: Why practice? Are you arguing for an understanding of teaching as a form of rehearsal for professional practice?
MA: During the past decade, the Department of Architecture was exposed to harsh criticism from the profession suggesting that the university, despite assuring that it was a professional school, had lost touch with architectural practice. After initially deflecting the critique, insisting on our autonomy and the notion that teaching and research were not to be seen exclusively at the service of the building industry, we nevertheless began to strategically restructure the Department’s program with a view to a potential dialog with the profession. To avoid the pitfalls of “professionalism,” however, the traditional simulation of practice was replaced with the delivery of performance. We train our students to learn to deal with uncertainties, to operate intelligently within a complex field of constantly changing parameters – to live dangerously. This takes us back to our course and to our decision to focus on the question of normative patterns, but twisting, stretching or overturning them.

DH: In our field, investigating phenomena related to the concept of “the everyday” is of course nothing new. Deborah Fausch, in “Ugly and Ordinary. The Representation of The Everyday”4 (a text we also read with our students) points out, however, that there are two levels to consider: the first is how we construct this architecture of the everyday and the second is how we perceive it. What interests us, however, is not identifying and replicating normative conditions but understanding them in order to transform them. Likewise, the critique of the everyday must not get stuck in simply exposing weaknesses, but must utilize this perception to find alternative approaches to it. The question of “why” should become the central focus to elicit a design process that ends in an architecturally understandable project. Without relying on irony or polemic citations, such projects must still deal critically with the status quo to transcend it and to find solutions that are beyond the norm, the everyday or the average. Otherwise we are doomed to simply serve up different manifestations of the same convention. One possibility is to operate with the things that are actually considered mistakes or failures of the system – the exceptions, the misfits, the deviants.

MA: What exactly do you mean by “mistakes” or “failures” of a given system?

DH: Starting in the 20th century, a set of abstract and polarized concepts became established in our discipline. “Good” architecture, “clean” or “neat” detailing, and “healthy” urban design are only a few examples. Georges Canguilhem, in his book The Normal and the Pathological’s advocates the thesis that no such absolute standards exist. In his opinion, a body is only healthy if it has the capacity to adapt itself over and over again to certain crises or disruptions of the status quo. I think that this approach
is exactly what we should be promoting amongst our students. We must train them in techniques of operations instead of seeking formal results or types. We must prepare them for crises to come, even if we don’t know when they will come or what they might be. As future designers, the students must be flexible enough to react to unexpected challenges. Only if you have an arsenal, so to speak, of several methods and techniques can you be ready to perform in the face of unknown conditions. Depending on the situation, you can deploy different techniques as each will have a different outcome. This is what I mean by acting from the inside out. When you start your design process with formal preconceptions, you will only produce what you already know. We must constantly ask ourselves – and the students – to think about the exceptions to a system and about ways to misuse standardized techniques. As far as this point is concerned, we are getting closer to developing the discipline from the inside out. Accordingly, the didactic method is a bottom-up process, the results of which will be unexpected because errors and deviations are used as operative tools. To do so, it is essential to be familiar with the point of departure, in sociological, economic, ecological, technical and aesthetic terms. As educators, we must manage to promote such awareness and engagement in our students. The study of architecture must be a continuation of their earlier education with other critical means, not a radical break from it. They must discover what their own obsessions and design fascinations are – whether from the newspaper in the morning, on the Internet at lunch or at the movies at night. One must constantly be on the lookout for design inspiration and opportunity. This is a projective act with critical potential.

MA: It seems that you are stressing the “why” while I’m emphasizing the “how.” So maybe our course is operating somewhere in between. Nonetheless, considering that the means employed in a process have a decisive effect on what is produced, I support the view that questions of method must be at the forefront of teaching. This does not suspend questions of meaning. Wary of meta-narratives or métarécit, I think that what we need to highlight are the mechanisms at work in the production of meaning, that is, the procedures directed at demarcating a specific order. Hence, I do not disagree with paying attention to established codes of convention. These must be ruthlessly challenged as to both the courses of action contributing to their formation and the underlying values they embody.

DH: That sounds quite abstract. Can you provide an example?

MA: Our discussion on norms led to a series of experiments addressing the typical suburban house. While the students’ work was thorough and provocative
in the proposed transformations of given standards, working from the bottom up, the single-family house per se was rarely questioned. It seemed that the studio was making a case for the nuclear family unit and its preferred form of habitat: the free-standing home on a green lawn. We are walking here on very thin ice. The risk is that conventionality, when not subjected to examination, is automatically propagated. Or to put it differently, our approach appeared to affirm precisely what we wished to question. Can a critique actually escape the conventions it criticizes?

The didactic framework of the studio needs to address this dilemma rather than avoid it.

DH: Yes, I think you are touching on a very critical point. It is hoped that the critical thinking we want to instill in the students will always lead them to leave conventions behind, or rather renegotiate them. I see working on the question of the single-family home as more of a circumscribed test scenario for applying newly learned methods or tools. But your comment is certainly correct: at the end of the process there must be a reexamination of the initial situation. We must ask: is the cliché of the single-family home at all tenable from sociological, ecological and economic points of view? Only when we put our minds to it and do not dismiss the single-family home outright, can we ask this question in the first place. In other words, we have to accept the conditions first in order to challenge them. While the didactic requirements and goals in the first semester are still very much defined by the teaching staff, in the second, the students are expected to set these goals themselves, developing them from their experiences with the initial exercises. These goals then provide the standard by which to evaluate their own work. I consider working out one’s own concepts and theses to be another method or tool that qualifies the students to recognize and deal with this “dilemma” in the first place. We therefore expect our students not only to learn about the “tools of the trade” in order to practice the architect’s profession but also to constantly question the discipline in order to generate their own tools.

MA: As a matter of fact, the basic structure of the course provides the framework to engage the issue. The series of assignments – twelve exercises during the fall term and an additional five during the spring term – moves along two tracks, one pertaining to the “how” and the other to the “why.” Both run simultaneously, without at first interfering with each other – maintaining their autonomy – which is not to say that they operate completely independently of one another. Quite the opposite: once their specific internal mechanisms are recognized, their relationship is investigated in terms of what Niklas Luhmann calls “structural coupling,” a term characterizing inter-
dependencies between systems. The first track focuses on processes, instruments, techniques and methods that can be used in architectural design. This can be a diagram, a plan, a specific technique to build a model, an organizational strategy, or a space-defining method. These operational devices always imply certain concepts. This takes us to the second track. Every exercise offers a platform for discussion on explicit ideas, concepts, or theories – a dialog initiated in the studio by texts, which students are asked to read, that are specific essays selected to nurture speculative thinking and the production of critical frameworks. Our teaching promotes a discourse on the construction of concepts, confronting students with contradictory discourses on method. What our students acquire is a twofold sensibility: while learning about the tools of the trade – this is extremely important to us, because we are responsible for teaching them a métier – they simultaneously learn to critically question recognized standards. This establishes a basis for what they will do after the ETH, namely to practice architecture in a context that is actually quite vicious.

The second aspect of this sensibility is particularly valuable, especially considering that only about forty percent of our students from the first-year course ultimately graduate with a Master in Architecture. And only a part of these will work in the classic profession of architecture. Providing training that is not based on architectural typologies, but on architectural methodology, therefore seems to me to be all the more important as an objective. Let us take the example of dealing with new technologies. When the first computers made their entry into education at the Department of Architecture in the late 1980s, they were largely treated as electronic drawing pencils. At the end of the 1990s, however, the pendulum swung over completely to the other side and we were already talking about the “paperless studio.” That means instruction relying entirely on the digital medium, without any hand-drawn sketches and drawings or physical models being made at all. I remember critiques only taking place in front of screens. But here, too, it seems to me important to incorporate questions about the digital medium into a pedagogical concept. Students must acquire the ability to jump constantly from one medium to another, to make drawings by hand, to continue developing them by computer and vice versa. We therefore begin as early as the first week with hand drawings, and in the second week of their training we introduce them to computer programs with the idea of “learning by doing.” Here again the priorities should be a playful approach and independent action. This reorientation likewise applies to the digital production of models. The first euphoric wave of digitally plotted models has by now been followed by
the skillful combination of both digital and handmade model components so as to fully exploit the respective advantages of each production technique.

MA: The combination of different techniques is another example of “structural coupling,” pertaining to the cross-pollination or short-circuiting of the instruments used in the making of architecture: the amalgamation of analogue and digital tools, drawings and models, diagrams and plans. This is in the spirit of what Michel de Certeau, well-known for his investigations of the everyday and someone suspicious of the single-mindedness of given discourses, calls “heterologies.” De Certeau as well as Henri Lefebvre regarded the routines of everyday life as a means of countering pure “mystified consciousness.” They stressed instead the unclean and contaminated exigencies of daily procedures. Accordingly, our teaching not only fosters the interaction of theory and practice but also addresses the negotiations involved when exposing various “unmatched” modes of production to one another. Design is here considered an ongoing discourse among conflicting parameters, methods, interests, ideologies etc. – ascribing a significant role and considerable responsibility to the designers involved. This sets the stage for yet another topic at the core of our teaching, which we have not addressed in our discussion so far. That is the question of the architect’s role in contemporary cultural practices: is the architect an artist, expert, mediator, impresario or bricoleur? Despite all claims to the end of authorship, or the “death of the author” as Roland Barthes would call it, we have come to understand that such a proposition – highlighting the work and not its maker – ultimately necessitates an additional effort by the authors of architectural works. Practically speaking, in order to cultivate this type of navigation between incompatible constraints and propositions, we ask the students to work in small and large teams, thus emphasizing an understanding of architecture as a collaborative enterprise. Such group efforts frequently entail complicated negotiations. Here, any kind of action involves communication. To borrow a concept from Jürgen Habermas, one might regard design as a form of “communicative action,” a mode of production requiring thoughtful interpretation of all presented points of view. “This does not mean that interpretation must lead in every case to a stable and unambiguously differentiated agreement,” writes Habermas. “Stability and absence of ambiguity are rather the exception in the communicative practice of everyday life. A more realistic picture is that of a diffuse, fragile, continually revised and only momentarily successful communication, in which participants rely on problematic and unclarified presuppositions and feel their way from one occasional commonality to the next.”