Architecture and Education I Interview 4
Andrea Deplazes I January 2012

Samuel Penn: In Tec21, a magazine published by SIA, you mention the duality of the Swiss architectural education system, the relationship between university and technical college education, and the recent creation of an Architecture Council (Architekturrat) that was established to discuss the serious problems faced by the erosion of the two systems. Could you talk a little bit about why the architecture council was formed and why there is a debate about the need for harmonisation of the two educational systems?

Andrea Deplazes: If we are to talk about this then we have to start with the effects of Bologna. Switzerland had a dual system, split into university and technical education - technical schools that would deal with all the necessary aspects of execution - the planning of construction and generally being able to realise the design ideas on a building site. The success of architecture in Switzerland comes down to the fact that there is a close connection between theoretical education and application in practice. This relationship bridges in both directions, and it is a precondition for teachers at our university to be engaged in practice at a high level. We are concerned that our teachers are good architects as well as being theoretically acute. We also have to recognise that the craftsmen and entrepreneurs in the building industry that surround the profession need to work closely together with architects to execute the projects to a high standard. So there is a respect that goes both ways. This was our basic understanding. Now Bologna. The Bologna declaration was created for universities in the hope that the exchange of students from member countries would become more fluid. The credit points system that was developed, which is essentially like money, like the Euro. But what those involved in Bologna didn't consider was how those choosing a university could value these credit points from institution to institution, country to country. In theory 100 credit points in Switzerland should be the same as 100 credit points in Scotland. Then you have a dilemma because we know the Euro doesn't have the same 'purchasing-power' (kaufkraft) in Greece as it does in Germany for example. Evidently they did not think of this and then the chaos of university ranking and qualifying followed. This is one part of the story, but the other part was that all countries that had a successful duel system architectural education, with technical colleges now had to shift toward having university status because they had to satisfy the same conditions as the higher education sector. Suddenly there were several schools of architecture competing at the same level, and the technical colleges totally forgot what their remit was and started to produce programmes similar to the ones taught at universities. The technical colleges are funded by the Cantons, they are not federally funded, and it is possible that because of the funding differences - some Cantons are more prosperous than others - that the wealthier ones immediately transformed into universities and the poorer ones struggled to survive. During this struggle all the institutions and schools invented new programmes. This now means that we had to accept that most institutions were aligning the type of teaching programmes they were developing, and it also meant that they were adopting the conceptual aspects of university teaching and stopped focusing on the parts dedicated to teaching 'know how' and the execution of building projects. We think this is a dangerous development because it's easy to see what has happened in other countries that left the dual system behind. The Architecture Council was established to provide a forum for all the heads of schools to discuss what the best way for the discipline to organise itself should be. Instead of seeing this as an opportunity to determine a way forward, the technical colleges saw this as a danger because universities already had well established profiles. So it was up to the colleges to decide whether they wanted to develop what the universities already did as a stock and trade or to develop their own distinct type of programmes. It wasn't up to the Architecture Council to find a way to harmonise the two strands but rather, to find a way to deal with the consequences of Bologna.

Samuel Penn: That's an important distinction. The Architecture Council wasn't established to homogenise the two systems but rather to find a solution to the dilemma faced by signing up to the Bologna Declaration. You have been involved in the Council for a while, what possible solutions can you start seeing emerging?

Andrea Deplazes: It's an ongoing discussion, but I was the first to admit that the dual system was dead. I mean, who is coming to teach at the technical colleges now? It's graduates from the universities that are trying to find positions in those schools. This means that there is a shift of 'interesting' new knowledge toward the technical colleges, but there is no longer anyone there qualified to teach construction at a professional level, with a basis to understand the rules of construction in the most holistic sense. Part of this knowledge is also knowing how to avoid making mistakes and if that starts to disappear there is a possibility that it will damage the profession. I mean,

these basics can be learned just like you can learn the basics of medicine. It's a hard job and not many people have the training needed to do it properly anymore. So I see these problems, the problems of having the wrong teaching staff and the new pressures of having to survive and compete in a market with established universities. In the past it was easy to understand the student profiles. If they came from a university they would have these skills and knowledge and if they came from a technical college they would have these skills and knowledge. Since the change, it has become more difficult. I can understand the profile of a student coming from a University because they haven't had to change to adapt to another system, but it's another story with students that come from the technical colleges. They're profile is harder to understand now. Now I have no idea what the capacities of students are that come from the technical colleges. This is something we want to address in the Council. But I have several hats and am pushing this discussion on several levels. I'm not only engaged as a teacher at the ETH, I am also on the board of the SIA, which is the Swiss Association of Engineers and Architects. This is also an interesting feature of our membership, that engineers and architects share the same society. Cross disciplinary exchange is absolutely necessary if architects want to be part of this complex building culture - not only part of, but in control of it! This is what we want.

Samuel Penn: It's my opinion that that Switzerland is a few years behind the rest of the world. The architecture here is better because you still work within an older system, one we abandoned to our detriment some time ago. Our path has led us to the point where the general contractor has become the leader in the industry. We are now in the absurd position in which they, because we couldn't, or wouldn't shore the ever increasing risks, are the ones that engage an architect of their choice to deliver the building on time and cost. I have noticed that this tendency is slowly creeping over the borders into Switzerland as well.

Andrea Deplazes: Yes, if we do nothing, then we are heading in that direction too. We think it's more interesting to look at alternatives in which we can strengthen the position of the architect. We are a small country and we have all the different factions working together at once - the entrepreneurs, the contractors and in many instances we can see those entrepreneurs taking on all the roles, the roles of contractor and architect and engineers, a total service if you like. These systems work well together in parallel. Ours isn't a mono-culture but rather a poly-culture of possible ways to reach a goal. There is a lot of choice and therefore a high level of competition to provide the best service possible. As an architect here in Switzerland I can take on one hundred percent of the contract, the planning, the supervising, the realisation and completing with a guarantee - if I want to do this I can. I could push it through on my own and convince the client that it's the right decision. We often create a general planning team in which we are the total providers of the building contract, in which case we the architects partner with the contractors and engineers etc. to provide the total service. And on the other side you have the building industry, the big entrepreneurs who are trying to do the same. It's an interesting dynamic and a battle. The architects have the advantage in that they can create more value through their designs, unlike the contractor who can produce economic value, the architect also has a cultural role. The architects role and advantage is that they can see exactly how to provide this added value because they have the expertise and overview of all the factors in a project. So, if you decide you want to be an architect rather than a lawyer or a banker, then you have to be an architect and deal with real issues. The question is, what is it to be a professional, and what is competence? My problem is that if we lose our competence because we are delegating the core of our work, then it's clear that the market will be open for the entrepreneurs to step in to the void we have left behind. I'm convinced that this isn't the only way that we can deal with the situation and try to approach it another way. I share the conviction as many of my colleagues do, that we cannot let our schools become self sufficient and isolated ivory towers, think tanks, that only deal with the theoretical aspects of the discipline. We have to work hard to make sure this doesn't happen - because if we don't do anything then that's the direction we're heading in.

Samuel Penn: Who are the people and what are the organisations that are fighting for the profession here in Switzerland?

Andrea Deplazes: The SIA is the association that also deals with the relationships between the public, the clients, the Cantons, with the law and the Federal Associations. For instance architects fees need to be protected because there is always pressure to reduce them. Our association is similar to the RIBA in that respect. We recognise that we have to fight for our profession. If I compare this to the real estate business, we design a building, say an office, deliver it on time and cost, did the best under pressure, then it goes on the market and suddenly the value of the property rises without anything being done in the meantime - then we have to ask ourselves why we shouldn't profit from

this effect? Our work was clever, it added value and the prices rose. The same goes for intellectual property. We are pushing hard to get our intellectual property recognised. After all if our work has added the value then it was our intellectual property that generated the rise in value. Every other business and market uses this strategy? So this is part of the role of the SIA. The SIA has remained a private association and is now the leading association that not only promotes the nice cultural aspects of the profession but has become strong enough to have economical influence. We have lawyers, and our members are well supported by them. Again this is how I imagine the RIBA functions, or at least how it should function if it doesn't - to protect and help its members, to promote the profession practically.

Samuel Penn: I think this kind of membership association last existed in the United Kingdom with our 17 Century Guilds and Liveries. Part of my interest lies in the independence, or as you call it private way that the Swiss organise themselves. There is a sense that all associations and institutions know how to self-regulate and to self-validate?

Andrea Deplazes: Yes. It's not a top down system. We realised that we had to organise ourselves, the same goes for the SIA and the new Architecture Council. The Federal Government and the Cantons don't deal with these issues. They have other problems solve and aren't interested. You also have to realise that the title of architect is not protected in Switzerland. Anybody who wants to start an office as an architect can do so, and can call themselves an architect. In Germany for instance the Government said that there has to be an architects chamber, a registration council, three years of practice, an exam, and then and only then can you join the chamber and practice as an architect. We found that this way didn't help to make better architecture. It didn't solve any problems. We are interested in having engaged members not just official members that can pass an exam to become registered and part of a chamber. An engaged member in my eyes is someone who does their job to the best of their ability, they see the good and the bad parts and think that maybe they could do something to rectify the problems. We want to attract people who think that they are the ones that can help make things better. We have to work together for our profession, and independently to compete for work! This is the dynamic of our profession. We are at the same time good friends and rivals.

Samuel Penn: In the UK we tend to defer our responsibilities to the state. We pass the risk to them and in return they regulate every aspect of society.

Andrea Deplazes: It's true that the Swiss would become suspicious if the state started to interfere in too many areas. We try not to over-regulate. We have a lot of top lawyers in this country that fight to maintain a liberal society. Of course the nature of the state is to try and regulate, but there is also a resistance of vital independent entrepreneurs and a strong majority of middle-class, and because they are engaged in the political process they can keep this tendency at bay. This is due to the sovereignty of the Cantons and the authority of the villages and municipalities. We're not like France where Paris is the centre for decision making. But that doesn't mean that we allow totally free entrepreneurialism. I already said, we are not interested in mono-culture. As architects we are also in control of information, digital information, and how it's used in the building industry. This means that we are devising the way information is shared among the different actors, again, this gives us more control over the processes and the actors in the industry - because we are leading research at that level. Most of fabricators and contractors use machines that are driven digitally nowadays and we develop the digital data that the machines need to produce the components. So now I, the architect, am an important part of this chain because I hold all the data. This gives us a lot of leverage. That's a significant change in the industry and one which we can profit from. Here in the ETH we tried it out with the Monte Rosa mountain shelter that was developed by students, not professionals. They worked on every part, from the building physics to structure and so on, and eventually we as a practice took it to completion. So it's up to you how you organise the production of a project and the rules of the profession - it's up to you, not the state. You have to take responsibility for any damages or mistakes otherwise the insurance association and lawyers will start determining how you should do your job. This would be a great pity.

Samuel Penn: It certainly would be a pity, and that's partly why I'm here, because that's exactly the situation that we are now facing in the UK. In many PFI schemes banks are not willing to lend to the contractors until stringent insurance criteria are met. It has become so intrusive that they are now demanding certain types of construction because they have to insure for the period of the building being occupied by the tenants. I have a feeling that if this started to happen in Switzerland it would not be tolerated and dealt with swiftly at a professional or even business level. It seems that you understand the situation more at that level. What I'm trying to say is that you, the profession here in

Switzerland, are much more au fait with those practices. Where do you get this from and who teaches it?

Andrea Deplazes: The Swiss system provokes you to have to be responsible for what you are doing. Our democracy means that I should allow you to live your life and you should allow me to live mine, but you also have to be responsible for your actions. This is our basic understanding. For example, compared to Germany, we have a system of trust - the first step in any venture to say ok, I think you are professional and that you are responsible for your actions, so try your best don't make mistakes, but we have to trust in the first instance. In Germany if you venture into a contract you have to think of all the worst case scenarios that could happen - so there's a different approach, one in which I don't trust you. You have to think of all the worst case scenarios that could happen theoretically. In Germany you can't work without double proof. The engineer will validate the architect but is not allowed to validate his own work. He needs another proof engineer that examines the work of the first engineer. You have to ask where this stops? This is simply an over-controlled system of mistrust. We have the same problem at the ETH when we want to engage German staff members because they are always worried that we are going to treat them badly or to trap them in a contract. For us here in Switzerland it's more normal to say, you are ok and I am ok, and now let's find out how to proceed. If something bad happens after that then of course we would have a problem, the person that made the mistake would have to take responsibility and pay for the damage or maybe even go to prison. Of course we have to have insurance if we make a mistake in the design for the clients sake, and the SIA stipulates that you should have insurance in their guidance. But we discuss this with the client and are free to determine the amount and the insurance provider. For example, we designed a house in Fläsch for a client in using only concrete mixed with foamed glass, no insulation. This was a totally new technique and there was no prior proof that it worked, and we said to the client ok we, the architects, the engineers and the manufacturers of the material and the builder, will make a contract together and will determine what the worst case scenario could be in using this material, and if it failed what we would be obliged to do to remedy the situation. We determined that the worst case would be water ingress into the small fissures in the concrete which would freeze and cause the surface to crack. Our solution was to say that if this happened we would render the whole house, thereby protecting the surface from water. We also said that we would be the ones obliged to pay for that, not the client. We put this to the client and they agreed, they trusted us and gave permission to proceed. Of course then we, as a team, had a lot of discussions about how we could avoid the worst case from happening.

Samuel Penn: I take it that the contracts provided by the SIA are similar to our traditional JCT. Are these particular contractual agreements you made, adjustments to those contracts, or private ones?

Andrea Deplazes: This particular contract was drafted up privately. We sent it to a lawyer and asked them to make sure that it worked as well as the standard contract. In essence it was an addition to the standard SIA contract. There are of course ways to obtain certain certificates for materials. In Germany there is the TÜV, Technischer Überwachungsverein (Technical Monitoring Association). Here at the ETH we have the EMPA, an interdisciplinary research and services institution for material sciences and technology development. You don't have to get a certificate from them but you can say that these are totally competent guys, they do all kinds of testing, whatever you can imagine, and I want to have this or that tested to be absolutely sure it doesn't fail. It's private and it costs, but an investor will weigh up that it's worth proceeding with a controlled amount of risk. We had to do this for the Monte Rosa hut, we used special glazing where we had to prove that the windows would resist fire for at least thirty minutes, and we did it with EMPA to have an official certificate that makes it clear that we can proceed with the planning. If we hadn't done that then the project would have been stopped by the client and the committee that give building permission. There are several official standards and regulations that have to be complied with. The state has developed a lot of regulations, especially to do with fire protection and escape distances, it's all in a book and you can learn it. You send your drawings to the building department and they look at them to see if they comply with the standards and norms.

Samuel Penn: And who are the kind of people that look at the drawings in the building department?

Andrea Deplazes: Architects, engineers and specialists. I mean, we have the same system as you. The difference here is that the state system is kept in check by private interests, and we are very vigilant in making sure that the balance doesn't tip to the wrong side. This is not a given, and we have to work to maintain this balance. There are a lot of discussions and arguments. Our politicians are of course always looking for new projects, to extend their remit, and it's clear that their reach is

increasing, so it's up to us to make sure that their influence is somehow curbed. This goes for all fields of activity of course, not just the architectural profession. We have to ask ourselves very basic questions in this regard, if I want to be an architect, then I also want to be able to fulfil my contracts, but more importantly I want to have the right to be responsible for my own work. This has to be at the base of any discussion.

Samuel Penn: We started this interview with a question about the Bologna Declaration. Because Switzerland also signed up it has to follow the European directive. Do you think it's feasible for Switzerland to maintain it's position as a kind of independent island in the broader European context?

Andrea Deplazes: The question is, can we hold our position against all odds and what should we adopt and what should we avoid from Europe? You say that we work in an older system, yes, and it's the one the SIA base their ideas on, but now students have to face a more complicated world - more complicated than the one I did my qualifying exams in, and we are finding that, of course, we now have to go to specialists. I think our strength lies is being the ones who have the knowledge about how to link all the different specialisms together. We are the only ones with the complete picture or overview but also the ones with the depth of knowledge to remain significant actors in a project. Even if I'm not the one who can plan a complex glass façade for a building, I should know the principles well enough to be part of the discussion and to be able to tell the client if it's being done wrong. I think this is now the exception and that a lot of architects in other countries have now given up that position and are coming to terms with that fact. As you said, there are now developers and investors who now coordinate all the actors in the process. The difference between these entrepreneurs and architects affiliated with the SIA is that they are not only interested in their company success, they are interested in a shared discipline. This is a big difference. It could be an interesting challenge to see how we can resist the tendency that has taken hold in other countries.

Samuel Penn: My next question concerns the competition system in Switzerland. We are finding it very difficult to enter competitions nowadays and pre-qualification applications are totally risk averse in their formation. For young practices without pedigree it's almost impossible to qualify for work, it's even hard for established practices. I know that here in Switzerland the competition system is still relatively fair, and one aspect in particular interest me, how it is that younger offices are encouraged to compete for significant works enabling them to start to build a portfolio of work. Is this something that the SIA and the BSA (Bund Schweizer Architekten) keep an eye on?

Andrea Deplazes: Yes, the reason the system works is because it was developed and approved by the SIA. It was a lot of hard work. SIA provides the rules for running a competition and they stipulate how to make the competiton jury and how to proceed. This is of course a self-initiative to stem the tendencies to produce a single interest a partial system, that always come from the state. It is so successful that the Canton's and the Federal Government now accept the format. We now have a law for public works (Öffentliches Beschaffungswesen) and a commission in the SIA that specifically deals with competitions. It means that if a Canton or a city aim to procure a building they have to do it by selective or open competition. They have to advertise the competition publicly so that every professional can participate if they want. This includes any prequalification of course, but the works have to be tendered openly. We fought hard for this and there are a lot of small commissions within the SIA that are doing brilliant work! Architects like you and me are part of these commissions and they meet every month to make sure things are going well and to highlight possible mistakes. Not everything runs smoothly automatically so there are a lot of meeting to identify problems and find ways to solve them. These commissions are very present and active, and the politicians are aware that that they don't have to get involved because it's being dealt with. The SIA is really the key to the success of the Swiss system. It brings together the profession and education to provide a future for the following generations.

Samuel Penn: Was the original establishment of the competition system a reaction to something in the past? I've read about the origin of this particular system and it goes back to the 1930's.

Andrea Deplazes: The SIA is going to be seventy-five this year. It's one of the first Swiss associations for the architectural discipline. You can see that through the decades, the competition system was central in determining the quality of the architecture. If you want to be an architect of standing then you really have to take part in these competitions. If you don't compete then you somehow show that you're not good enough, so it also has an effect on the architect personally, to work at a higher level. I had conversations with other professional, lawyers, doctors and engineers, and other than on their fees none of them have to compete for work the way we have to. We are the

only ones that have to come up with complete ideas during our competitions to win work, and I think this is good, but it's also a great advantage for the public. We are doing a lot of private work and potentially for nothing. I mean, when we do a competition in our office, with an average project is worth twenty million, with three or four people working on it for two or three months, then you can calculate what our potential gain and loss would be, and of course the chance loosing is much greater than the chance of winning, say a fifteen percent chance of winning first prize. It's actually a huge advantage for the public sector. And so it's really important that we make people realise the amount of work that goes in to these competitions, otherwise they will start taking it for granted. So at the SIA we promote architecture as a significant and difficult act, we want to show the younger generation that it's worth becoming an architect, to encourage them and help them become established in a good position.

Samuel Penn: You're right, it's the young ones that concern me the most. In most places they are having great difficulties finding any work. They are demoralised and disenchanted.

Andrea Deplazes: This is the worst thing that could happen. If young architects are starting to give away their work and expertise for nothing then it will have a very damaging effect on the profession. If we start to devalue our conceptual ideas, that I will compare to chess in complexity, if we start giving away this part of our work for nothing, then I think we can give up. The value of the work that the architect does at the beginning is so high. For example, if we look at the competition again - if a full project from beginning to end is hundred percent then the work we do at the competition stage is the first five percent. It is in this first five percent that the critical part of the work happens. In the genesis of the concept lies all the added value that will eventually be in the finished building. Everything is located there, so it's a key moment. In marketing an idea is worth gold! We have to think like this about the first conceptual stages of a project, and this attitude has to be cultivated right from the start with the students. This is why I say to my students that if you don't have an idea then you really have a problem, and the idea has to be a good one, not just any idea. Finally it's important that the students learn that they have to be able to push the idea through in the real world, and here again the SIA plays a critical role by promoting the good architecture that's built. We have to prove, by providing figures, that it is better to employ and architect, that by using an architect you get a better outcome. This is another significant part of our association. We have to prove that to push for good architecture is better than just settling for second best. You have to ask yourself how you can maximise and profit from each situation, with one hit you have to have a triple effect. In fact I like the students who are lazy, but then in the right moment they attack - they're on top! It's like a sport. In my year I have ninety students and it's chaos. Thirty percent I don't have to look after because they are totally self motivated and sharp. With the bottom thirty percent I only have to make sure that they leave, but it's the middle that are the most difficult because they are generally competent and responsible students but uninspired, and it's them that end up becoming project managers and consultants to clients. This is a real pest and a problem I still don't know how to solve.

Samuel Penn: In the UK the schools are validated by the RIBA and ARB. In order to gain validation we have to prove that certain criteria and procedures are met. It means that a non-governmental agency establishes what should be taught. Is the ETH D-Arch validated by anyone?

Andrea Deplazes: The ETH is a federal university but our school is not regulated by another agency. We still have the international rating system to contend with. You can't avoid Standard and Poor's and the ETH has a good ranking. It happens whether you like it or not. Other than that we are totally free. I have a contract that has three sentences, basically it says that I have to educate following the rules of my discipline, I have to research, and I have to find the best ways of teaching and practicing. It's very simple. It means that the application process for new professors is critical and we are very thorough, because if you make the wrong choice then you potentially have a real problem. We want to have the best students and the best teachers here and this means that we have to take care. Once you think you have found a good teacher or professor, because the application process is so rigorous, then they are on board you have to trust them. I was part of a committee in Germany recently and we found a good set of applicants and made our recommendations. We thought we had finished and then we found out that the students were now being asked if they agreed with our choice, and the students said no to our choice and I said ok, if this is the game forget it. This was the first and last time I was in an evaluation committee in Germany. You have to trust the competence of someone. You have to have basic human trust. Without that you can forget everything. Without it you just have an infinite regress of insurance! Personal human trust and engagement - for me, without these two things you can't do anything.