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"I would say a political program is more important
than new rules
or replacing rules with other rules."

— REM KOOLHAAS

A Legislative Space Known as SWITZERLAND

Marc Angélil
in Conversation with
Arno Brandhuber

The essay “Mapping Flows: Switzerland as Operational Landscape,” written by Marc Angélil and Cary Siress, was published in 2015 as part of the *Research in Urbanism* series edited by Steffen Nijhuis, Daniel Jauslin, and Frank van der Hoeven at Delft University of Technology.¹ In the essay, Angélil and Siress, drawing on episodes involving the use (and abuse) of maps throughout the history of Switzerland, address the geopolitical agency of cartography in the production of territory. In particular, the authors argue that the mid-nineteenth century map made by Guillaume-Henri Dufour played an important role in the process of re-territorializing “a loose coalition of fiercely independent cantons into that unified economic and legislative space known as Switzerland.”

Understanding the legislative tool of the Swiss referendum means understanding this “legislative space known as Switzerland”—as well as the “infrastructural machine” that comes in conjunction with it, and which, in the words of Angélil and Siress, “remains central to Swiss self-esteem.”

In December 2015, Arno Brandhuber met with Marc Angélil, professor in the department of architecture at ETH Zurich, as well as founder of AGPS Architects and author of several books. In Angélil’s office on the Hönggerberg campus of ETH Zurich, the two architects discussed the origins of the Swiss referendum as a tool that enables direct democracy.

BOTTOM-UP NATION BUILDING: EIDGENOSSENSCHAFT & DUFOUR’S MAP

Arno Brandhuber: In your essay with Cary Siress, you wrote: “This passion for all things perfect is more than mere myth, it is the hallmark of Swiss identity both within and beyond its national borders.” What role did this passion for perfection, this specific kind of ‘Swissness,’ play in the process of mapping that defined the legislative space known as Switzerland—which then in turn reproduces perfection as a hallmark of its identity?

Marc Angélil: Let me start early in the history of Switzerland—which must be understood as a construction, it should be said. History is not *a priori* given. In any case, historically speaking, Switzerland was nothing more than a loose assembly of various highly heterogeneous groups: different currencies, different measuring techniques. This led to the notion of the *Eidgenossenschaft*, which translates as the ‘oath fellowship.’ So a few people, a heterogeneous assembly of farmers, peasants, took an oath to agree upon and follow certain rules, most of which pertained to resources. The stretches of forests, or Alpine pastures where cows grazed, these required a high degree of organization and management. This is what Elinor Ostrom calls ‘common-pool resources’ and ‘the commons.’ You have to understand Switzerland, at its origins, as a form of cooperative—a co-op that, according to Ostrom, later on established a series of rules dictating how to manage its territory and resources. This takes you straightaway to what Stuart Elden called ‘territory as political technology,’² that is, territory understood as a series of norms that are created and loosely agreed upon in order to manage this political technology. And clearly, it’s a construction.

Another thing that’s very important to consider for the Swiss identity is that this loosely assembled body of peasants also began to protect their territory vis-à-vis the state. The state, in this case, was the Hapsburgs. The peasants created these little militia armies—today we still have a militia system that requires every Swiss man to enroll in the military—which were basically guerrilla troops that attacked the enemy. In the most surprising moments in history, these militias would become the official ad hoc authority. This all took place in the fourteenth century, which is very early. Over time, this political technology grew, and helped create the legislative framework of what, much later, would be understood as Switzerland.

The other episode is the making of the famous Dufour Map. The military engineer Guillaume-Henri Dufour, who’d been trained in France, was given the assignment to create a map of the territory governed by this loose group. He started in 1842, years before Switzerland was officially formed as a modern political entity, and took 30 years to finish. So the map, which in this case was a technological enterprise *and* another type of political technology (because it was politically driven), led to the foundation of Switzerland before Switzerland was even officially established as a confederation. The map preceded the territory. This is Jean Baudrillard’s argument, that the map precedes the

territory and that it's the map that *creates* the territory.³ It's only when you see the map that you realize: this is yours. In Baudrillard's sense, then, this didn't happen until even later, when the map was officially exhibited in the national exhibition in Zurich at the end of the nineteenth century. The Swiss people saw their territory for the first time. This map therefore was a kind of nation-building project, to acquire an identity: 'This is me.'

AB: But there was something particularly unique about Dufour's map, as well: these maps are very accurate, extremely precise. For that time period, you could say, extraordinarily precise.

MA: Exactly. I mean, imagine it: here you have a military engineer who's given the task to do the impossible, to measure the entire topography of Switzerland's rocky terrain, including the Alps. No wonder it took him 30 years! There were also big debates over how exactly you were supposed to measure. Then it had to be translated onto paper. This wasn't done directly—you first had to produce copperplates, which involves yet another step of translating information. So suddenly politics and science merge together in the making of this map. There's a conflation of the two in order to create territory. You end up having this *ménage à trois* between the military, science (understood as the knowledge and techniques required to measure the land and translate these measurements onto paper), and the territory of what was considered to be Switzerland. And through this, Switzerland as a bounded place, as an entity, was seen and made visible for the first time.

So those two examples show you how territory becomes a political technology. They show you how it's highly constructed—territory is not given *a priori*—but they also show how it's transformed over time, what traces are transposed from one historical period to another and what aspects change. Then you begin to see that Switzerland, as a construct, is obviously something that evolved over time, but on the basis of strong foundations: precision, military science, the commons. Switzerland was never a state with a monarchy or a top-down-organized constitution. It was always bottom-up. This is extremely interesting, and we forget that in our history. Because now things have changed. We still have the principle of direct democracy, where we vote on everything possible at the communal level, cantonal level, and at the national level, but there are moments where, suddenly, top-down decisions are made. One of these came in 2008, during the financial crisis, when the UBS was rescued because it was considered too big to fail. Within a week, clearly a top-down decision was pushed through to rescue the biggest bank in Switzerland.

POLITICAL TECHNOLOGIES: PERFECTION & PRECISION

AB: Let's get back to this notion of 'precision.' The widespread perception of Swiss precision, this image of perfection—when did that arrive? Your

argument, as I understood it, was that the precision of the Dufour Map led to a kind of self-image of Switzerland as being in a state of perfection.

MA: Precision and perfection are really a hallmark of Swiss identity, through and through. This started very early on, in the organization of the commons, where you needed very clear rules and you couldn't deviate from those rules. Every farmer was allowed to send a certain number of cows up to the Alpine pastures—this was contractually agreed upon within every community, along with the amount of wood that must be cut to avoid deforestation. So this precision was established very early on, in order to bring together, to somehow homogenize a heterogeneous group under the umbrella of what Switzerland would later become. The Dufour Map was another example of this. You have a complex territory—therefore you need precision in order to present it. And later on, you also need precision in order to build tunnels and bridges that will pass through it. In Switzerland, a straight road is a rarity. This precision was also nurtured in the educational system, right up to the Eidgenössische Technische Hochschule [*Swiss Federal Institute of Technology, ETH Zurich*]. The ETH was founded by the Swiss government 160 years ago in order to nurture an engineering knowledge-base in service to the government. You see, precision emerges quite early on within the educational system. And it's carried even further; it has remained a part of this culture at the military level, the educational level . . . at the level of how to organize the collective. At the engineering level—how to establish infrastructure systems, etc. It is part of this spirit. But it's also part of this political technology that constitutes what we consider Switzerland.

AB: How then would you explain the fact that this precision, or perfection, wound up becoming ideological to such a great extent?

MA: Precision and perfection are primordial questions in this culture, questions of necessity. A necessity that has to do with *making*. Practice, in Switzerland, has always been valued higher than any theoretical superstructure that you can build around it. Academics are regarded suspiciously. However, if they're seen as *makers*, they have a higher value within society. It's also a culture without philosophers in the traditional sense, the way you have them in Germany, in France, or in Italy. We don't have a philosophical body of knowledge to fall back on. It was a culture that foregrounded practice. And that practice was closely tied to the construction of this political technology. It was essential to maintaining Switzerland as an entity. And therefore it became ideological.

AB: Could this technical thinking also serve to explain why, politically, you opt to remain neutral?

MA: I think you're right, the notion of Swiss neutrality is a construction



Legend table with 10 columns and 10 rows, detailing symbols for various geographical features like roads, railways, and water bodies.



Scale bar showing 0, 10, 20, 30 km. Text: Massstab 1: 1,000,000. Gedruckt am 15.03.2016 17:15. <https://s.geo.admin.ch/6a7cf4fd38>



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Swiss army, Blattman Map, 2010

as well, and it belongs to this cluster of techniques that were deployed in Switzerland's history. Neutrality is a highly political position, and it emerged in its own right during the period when Switzerland was selling its young men to fight as troops in foreign armies, whether for Napoleon, or Italy, or the Germans. The Swiss Guard in Rome is a vestige of this—it's also a way of saying, 'O.K., we are a force, but this force can be sold to somebody else.' So you had to nurture different alliances. This became very obvious in World War II in the relationship between Germany and Switzerland and the Allied powers. For example the famous Bergier Report, which was published several years ago, analyzed which industries were cooperating with the north-south axis of Germany-Italy and documented when the money changed hands between Germany and Switzerland. At the same time, Switzerland was also negotiating with the Allied powers, particularly France. You had Switzerland claiming its neutrality in the middle of European territory while building its fortifications in the Swiss Alps at the same time. So the concept here was to try to protect itself in the event it was attacked, and at the same time to establish friendly relations with the Nazi regime from an economic point of view. That's a point in history where neutrality was a problematic concept. On the one hand, it was a question of survival, because the Swiss were truly terrified that they could simply be erased. On the other hand, they used their economic power to maintain friendly relations in order to avert any kind of attack. What you see is that Swiss neutrality has undergone several difficult phases. It's at its best when it can be used to negotiate between parties in global conflicts. I'm very pleased and proud that Switzerland is part of the United Nations now, after many years of Switzerland remaining separate from the global community.

AB: There's a contemporary map, made by the chief of the armed forces, that depicts Switzerland in the center, and all the countries having difficulties in Europe and the Middle East are arrayed around it.

MA: We use two types of maps in Switzerland that are contradictory. One type suggests that Switzerland is a neutral island, surrounded by hostile territories. This is a classical vision that conceives of Switzerland as a bounded space. The other type is exactly the opposite, and tries to see Switzerland as part of the global economy, as a global player, and charts how the flows of culture, currency, and information pass through the country—typically, this flow runs north-to-south across the Swiss Alps, and it too is traditionally rooted in the Swiss identity. Switzerland as a state, or a confederation, has always played both games at the same time. It has tried to open its borders, sending goods and people to the outside, maintaining good relationships with its neighbors, even at the global level.

Yet the other game is a mentality that says, 'Let's protect ourselves, we

don't want to be part of the EU, we have our own territory, we have our own rules, and we won't play according to the rules of Brussels.' Being Swiss, you have to be very aware of the fact that both tendencies are constantly in play at the same time. This is also what we saw during World War II: 'Protect the territory, maintain clear lines.' Make it so that everybody knows exactly where the line of Switzerland is.

The other approach was to say, 'No, no, these lines can be much more diffuse.' The map drawn by the ETH Basel Studio, where you suddenly couldn't see the contours of Switzerland anymore, made this very obvious—because the territory around Basel leads into Germany; Geneva fades into France; and the Ticino region becomes part of the metropolitan agglomeration of Milan.⁴ This is equally the reality, because you cannot be entirely self-sustainable. You will always be connected to the outside.

AB: There was also a suggestion made at the United Nations that one part of Switzerland should go to Germany, one to France, and one to Italy.

MA: Exactly. This was in a petition made by Gaddafi to the UN in New York. He was angry because his son had been thrown in jail despite his strong financial relations with Switzerland—not only keeping his fortune in Swiss banks but also selling petrol to Switzerland. He was angry, and he launched this attack against Switzerland suggesting it should be erased from the map. Which is a very interesting proposition—to say, 'Let's return the German-speaking part to Germany, the French-speaking part to France, and the Italian-speaking part to Italy.' This was a campaign that lasted for at least three years. And it was piqued even further by Switzerland's ban on minarets, which made him angrier because he considered it a fundamental attack against Islam, the idea of erasing the minaret as an architectural symbol. Of course the Swiss population voted in favor of the referendum, in spite of the fact that many politicians and the Swiss intelligentsia were entirely embarrassed about it, but it passed anyway. When you vote on such an issue, because we have a democratic system, the people can always vote the way they want to vote. And they don't necessarily vote the way the government or the political elite wants. That's a condition you have to live with. What's interesting is what happened afterward. In the case of the minaret referendum, it wasn't as dramatic as originally anticipated. It somehow became a law that faded away in the background of Swiss bureaucracy.

One referendum we had that was more difficult to swallow was two years ago, when the initiative against mass migration was passed by the Swiss people. The people basically said, 'No more migrants can come into Switzerland.' This led to conflicts with the EU that haven't been resolved; it's still being debated, quotas are being discussed, and obviously it runs counter to the fact

that Switzerland wants to remain open to Europe while maintaining its identity. So within this political technology, we're encountering a kind of dilemma and a schizophrenia between being closed and open.

AB: Are you part of the Schengen Area?

MA: We are part of Schengen. But we joined late.

ACTION: DESIGN & RESEARCH

AB: Here we are at an architecture school and you're teaching architecture. If we look at things from a bigger scale, as we've done up to this point in our conversation, we know that much more is decided at the levels of legislation, norms, and normativity—at the level of politics in general. These decisions have far greater influence—especially in a direct democracy—than any form of architecture. Considering all this, shouldn't we be applying the design process to this field as well?

MA: What's interesting about designing at a place like ETH Zurich is that, first of all, you're getting very well-educated students, fantastic thinkers, and students that have been disciplined to such a degree that they'll constantly perform. They are makers, they draw like angels, they bring a high degree of precision to whatever they do. But since there is a tendency to operate within a normative framework, there is also a tendency to replicate what's considered the architectural norm within their projects. You find this in many different cultures as well. What's interesting is that, because they know how to draw and because they're intelligent thinkers, you get a few out of every class, maybe 10 percent, who rebel—who establish a resistance within these norms, and begin to push the envelope. And this is extremely exciting. At the moment, I have 50 students in my design class, which is too many, but anyway at least five of them are doing work that's highly provocative, and that has the potential to push architecture as a discipline. Whereas the others perform within the norm, and will be very good architects, they will just continue maintaining the high standards of architecture that Switzerland has always had. And this is also part of the tradition.

You know, I also think it's interesting that the department of architecture belongs to the science and engineering school, and it was considered department number one within the numbering system when the school was founded 110 years ago. The government considered architecture important enough to make it the first department of the school founded to advise the state on how to build a nation.

AB: The ETH Zurich is like a small-scale model of the entire Swiss Confederation—although universities in Switzerland have this self-conception of being neutral, non-political. It's not like in Germany, where you'll find Marburg

as a leftwing university city, while other universities are known as being more traditional. But in Switzerland there's this notion that a university is neutral. Can they be political then, or are they out of this discussion by definition? You mentioned yourself that neutrality doesn't mean being apolitical. Schools that regard themselves as apolitical seem to be driven by a kind of fear.

MA: In this case, we need to draw a distinction between teaching and research. The ETH Zurich is a professional school, so your objective is to train professionals that, when they graduate, can operate not only within the Swiss system but on a global basis. Therefore you have an obligation to them, because when they leave the school they are seen as licensed architects. This isn't the case in the US, this isn't the case in Germany. So there's a trajectory here related to teaching that aims to create professionals capable of operating within the system.

On the other hand, there is a research side. I spend 50 percent of my time conducting research and 50 percent teaching. Research, on the other hand, can be much more provocative, and enter into uncharted territories. I'll give you an example: a few years ago the department of architecture signed a petition that went out to the press. We organized a conference, and we were featured in the headline news at prime time, right at 7:30 p.m., on Swiss TV. We launched an attack against Switzerland's energy codes. So at that moment, the department of architecture became highly political, and there were even attacks on the architecture department made at the parliamentary level, saying, 'How is it possible that the department of architecture is expressing such a bias against the existing energy codes?' Which also amounts to an attack against the industry, which wants to have triple, quadruple-glazed walls that are insulated *ad absurdum*. And suddenly here we are talking about an entirely different strategy in terms of the energy system. When you do an action like this, you cannot leave it at that. It has to be followed up; so we had one colleague, Professor Hansjürg Leibundgut, pushing for other concepts. It was highly political to call into question certain norms that were established on the basis of research done 15 years earlier, interestingly enough, at ETH. But I think in the end—I was dean at the time, so I was involved in all the negotiations—the members of parliament realized: this is why they have us. They also have us to criticize what is given. We are there to promote, let's say, the next step of development.

1 Marc Angéll and Cary Sirex, "Mapping Flows: Switzerland as Operational Landscape," in *Flowscape: Designing Infrastructure as Landscape*, vol. 3 of *Research in Urbanism Series* edited by Steffen Nijhuis, Daniel Jauslin, and Frank van der Hoeven (Delft: TU Delft, 2015), 35–55.

2 See Stuart Elden, *The Birth of Territory* (Chicago: University of Chicago Press, 2013).

3 See Jean Baudrillard, *Simulacra and Simulation* (Ann Arbor: University of Michigan Press, 1995). Originally published in 1981.

4 See Roger Diener, Jacques Herzog, Marcel Meili, Pierre de Meuron, Christian Schmid, ETH Studio Basel - Institut Stadt der Gegenwart (eds.), *Die Schweiz: Ein städtebauliches Portrait*, vol. 2, *Grenzen, Gemeinden: Eine kurze Geschichte des Territoriums* (Basel: Birkhäuser Verlag, 2005).