

The Clock and the Bear Pit; Some Reflections on Urban Planning and Creativity

Liam Nilsen and I just had the opportunity to visit the “Einstein house”, Kramgasse 49 in Bern. This is the small but comfortable walk-up apartment where Einstein was living when he wrote the *annus mirabilis* papers, and thus arguably the site of the most recent Really Big Ideas in physics. Lacking any other office or intellectual center, he referenced the apartment itself in his writings: “The Special Theory of Relativity was developed at 49 Kramgasse in Bern...” For me it was a sort of intellectual pilgrimage. I took two impressions away.

First of all, it provided some perspective on the oft-told drama of Einstein's trivial job as a patent office clerk, largely unrecognized by the universities for several years after revolutionizing physics in 1905. That story is a crowd-pleaser, paralleling many other stories of discoverers and artists who went largely unrecognized in their finest hours, or even their whole life: Newton most obviously, but also and to varying extents Wegener, Mendel, Thoreau, Poe, Dickinson, Kafka, Van Gogh, Monet, El Greco, and so forth. And it is worth mentioning that Shakespeare appears to have paid the rent as a director and actor, not a writer. The reasons that we little people appreciate these stories are not hard to guess. After all, like Newton and Monet, most of us are not recognized by our peers as transcendent revolutionary geniuses. And most of us have, at some point, felt undervalued by society, so the fantasy of being *ridiculously* undervalued has a perennial appeal.

However, 49 Kramgasse is hardly a shack in the woods. It's a small but bourgeois apartment, with a painted ceiling and tile and hardwood and nice furnishings, located on the main commercial street in Bern, overlooking the river. As Liam points out, Bern was considerably smaller in 1905—around 90,000 people—so in a sense everybody lived “downtown”. But it is almost precisely, smack-dab in the middle of the downtown commercial center: a neighborhood that today is so high-rent that independent shops have opened in the basements and back rooms of virtually all the storefronts. My point is that while Einstein was indeed *ridiculously* undervalued in 1905, he wasn't exactly starving to death in a ditch. I am reminded of Woolf's economic criteria in *A Room of One's Own*: “Give her a room of her own and five hundred a year”...we need not bother with all the inflation calculators and cost-of-living adjustments and exchange rates to say that Einstein had that, in 1905. The fact that he was ignored by the academic establishment and unrewarded by capitalism are important pieces of the story, but so is the fact that he had a relatively comfortable middle-class lifestyle.

The other thing that I kept remarking on was the clocks. The clocks are metonymic, here, but they're an important metonym. The Bernese *adore* their clocks, and Kramgasse is dominated by the enormous Zytglogge tower, quite visible outside of Einstein's window, a view you can see here thanks to Liam.



The Zytglogge is a double complication, with a clock above and a calendrical and astrological wheel below, and then on the side there are clockwork automatons that bang a drum on the hour for the tourists. Perhaps it bears mentioning here that Einstein liked to sit in the window thinking about physics for hours at a time...he would have spent much of that time looking at the Zytglogge. The shops along Kramgasse also specialize in clocks—there are currently something like four clock-shops per block, by my count, and several of them boast of being over a hundred years old, so we can imagine that they were around in Einstein's day. Standing in front of their window displays, each one a tableau of Swiss obsessiveness, one is always tempted to compare the clock faces. Are any running fast? Are any running slow? In the block above Einstein's house, this question appears again, with a tantalizing twist. The street runs from the Käfigturm down to the Zytglogge, both of them capped by enormous clocks and decorated with personifications of Time. But are these clocks synchronized, as good Swiss clocks should be? It is impossible to tell, because you can never see both of them at the same time, you have to turn back and forth. Clearly, all of these experiences (which seem to be largely unmentioned in the versions of the Einstein legend that I've read) are suggestive of the metaphors habitually used in discussing relativity.

I do not mean to suggest a C. Auguste Dupin-style analysis here: a man lives near a clock, therefore he discovers special relativity. That would be absurd. Einstein was not the only middle-class science enthusiast who was walking around in Bern, and Bern is hardly the only city covered in clock-shops. On the other hand, I think it is reasonable to talk about an urban environment or a class or other living patterns as *catalysts* for creativity.

We can broaden that conversation by noting that clocks are only one feature of downtown Bern. The old town is in many ways like a dream of M.C. Escher: a completely three-dimensional city, built on steep hillsides, full of walls and turrets and bridges and tunnels and archways. All of this surrounds the Aare, a ferociously rapid torrent that the Bernese nevertheless love to swim and boat in. It is not uncommon to see pedestrians walking across a bridge, high over the river, suddenly strip to a bathing suit, mount the ramparts, and dive down into it. And did I mention the bear pit, a block or so down from 49 Kramgasse? With, you know, bears. Or the endless sculptures. Or the Marzilibahn funicular, just behind Einstein's place, which is still bizarre, but at that time ran on a much more ingeniously bizarre system, where the upper car loaded up on water to use as a counterweight, and then dumped it out at the bottom. Paul Goodman has written about the “incidental” educational space that cities can provide, and Bern is (and was) a marked example of that. You cannot ride on a water-powered funicular without thinking about physics. If your morning stroll takes you past fifteen clock shops and a bear pit and people jumping off bridges to go swimming through their piers, that is a significantly different cognitive experience than just driving over to Dunkin Donuts on your way to the office.

Woolf suggested that genius, or at least the expression of genius, requires a particular set of class circumstances. Whatever we might say about the intrinsic creativity, we can't really image Einstein writing those five papers if he were living in a ditch in Biltine, Chad. There are counterexamples, to be sure, but I am suspicious of them. Diogenes and Thoreau were famously living in ditches for reasons that smack of publicity efforts, and the same argument can be loosely extended to, let's say, all poets. But Woolf's insight is not a matter of boolean logic, it is the inescapably enormous probabilities associated with class and creativity. There are geniuses among the starving, of course: statistically, we might expect that *most* geniuses have been among the starving. But they understandably tend to expend their efforts on finding ways to starve to death a little slower.

I think that a similar pattern holds with Goodman's observation. It is *easy to think* in Bern; I can feel that palpably myself, and I am not staying downtown. Today there are hiking and biking trails everywhere, miniature petting zoos everywhere, a staggering array of unique playground equipment, and endless sculptures and public art. I don't know how much of this had analogues in Einstein's day, but clearly the general ethos was already there: *a city should be full of curious little things, preferably interactive, preferably without explanation*. Few of these things are tourist attractions, but they are endlessly thought-provoking. When Susannah gets off work, I am always trying to drag her off, not to a museum, but to a rotating disk that tips and is hard to balance on, or to a pen of llamas hidden behind a parking garage, or an outdoor elevator that takes you to a zip line past some goats, where the city abruptly ends and turns into a wheat field. A thousand little curiosities.

Bern is a tiny city, so it is hard to judge its success as an “incidental school”. Its other luminaries include the physicians Albrecht von Haller and Emil Kocher, the latter of whom was the first surgeon to win the Nobel Prize. Lenin and Bakunin both frequented Bern as well. Bakunin is buried there, at Bremgarten. Just before we left, I went to pay my respects without actually finding his grave. Instead, I wandered the Bremgarten cemetery,

awestruck. The monuments are the most diverse I've ever seen: stones carved in classical, art deco, modernist and cubist styles. Wooden monuments, aluminum monuments, bronze monuments, stainless steel monuments, mixed-media monuments, wooden cabinets full of artifacts. Several nudes. Plantings and benches in lieu of monuments. Monuments without any words. Columbaria. A thousand little curiosities.

I feel certain that it is this subtle diversity of experience that makes it easy to think in Bern, and that “a thousand little curiosities” helped catalyze the mental tempest that was Einstein in 1905. That is not to say, of course, that it was a decisive factor. And it is also not to say that I am sanguine about basing an urban planning strategy on this approach. One of the more infamous Bernese was the obnoxious eccentric aristocrat, Madame de Meuron, and it is easy to imagine that the conscious effort to create a space of incidental education might devolve into *mere* eccentricity. In that vein, it is also easy to think of examples of cities where the clocks and bear-pits and artwork are so self-consciously cloying that they run together, and stop being thought-provoking. There is a critical density of rogue art students beyond which an urban space starts becoming *less* interesting...

But I am writing this at our friends' house in Balduina, a post-war Roman suburb full of rather homogenous *palazzine* and soaring pines. There are no crazy medieval clocks, no bears, no hydraulic funiculars, no unusual playground equipment, and very little public artwork. Our friends are hastily moving to the middle of the nowhere, so they will be less bored than they are in Balduina. And there are a hell of a lot of Balduinas on earth. It may be a foolish enterprise to try to build a city where it is easy to think, but is certainly possible to create a city where thinking is difficult.