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This essay deals with a type of shell made of reinforced concrete in Switzerland that reaches huge dimensions and whose prevalence in the domestic sphere is unparalleled worldwide. Despite their literal mightiness, their location under the ground and their profane architectural form mean that they are barely noticeable. The category referred to is that of the civil defence shelter built throughout the duration of the Cold War. Based on the *Schutzbaugesetz* (Civil Defence Construction Law) passed in 1963 and the civil defence concept that was formulated shortly afterwards, the Swiss authorities accelerated the construction of highly standardised defence shelters in order to provide each and every inhabitant a 'modern' protective space that would not only shield them from the devastating effects of an atomic-bomb attack but from chemical and biological weapons as well. With an expenditure of approximately 12 billion Swiss francs, Switzerland nowadays boasts 360,000 such atomic shelters. Strung out in sequence, these subterranean cells made of reinforced concrete – built in the cellars of single-family houses, but also under school complexes, municipal town halls or parking garages – would give a traversable route of 1,200 kilometres, equivalent to the distance between Zurich and Algiers.¹

Even if the figures are unparalleled by any other country in the world, these Swiss survival catacombs should not be reduced simply to their undoubtedly impressive material and monetary dimensions. The reinforced concrete cells, which are to be found in almost every apartment building, are closely interlinked with specific rationalities and expertise in Switzerland during the Cold War, with its politico-cultural self-images and identity discourses. In this respect the built civil defence environment should also be understood as political plastic, as the ideological and material armour of Switzerland in the Atomic Age. Conceived and implemented in the 1960s and 1970s, at the latest by the 1980s this cemented Switzerland under the ground began to erode.

I will initially examine the formation of civil defence spaces as a realm of technical knowledge as generated by engineers, specified in technical guidelines and, finally, as materialised in concrete during the course of the 1960s.² In a second part I outline the hegemonial imaginational arsenal and the identity discourses that engineers and officials spun around these concrete shells, arriving finally in the third part to a civil-societal critique of concrete and the armour-plated Switzerland of the Cold War.

Calculating and Materializing the Apocalypse

Before and during the Second World War, in order to protect the civilian population against aerial attacks, civil defence organisations, authorities, and the military encouraged the voluntary construction of makeshift air-raid shelters. Due to the fact that the additional costs had to be largely borne by house owners and tenants, and because existing construction regulations varied greatly from canton to canton, the population initially showed very little self-initiative during the war in building such air-raid shelters, so that by the end of 1945 provisional defence shelters existed for only 15 per cent of the population.³ In the immediate post-war years, and as a result of the general peace euphoria, the Swiss Federal Council initially focused on terminating all air-raid protection measures. However, only a short time later differences in the positions of the USA and the Soviet Union about how the world should be re-ordered emerged, leading to the division of Europe into two enemy power blocs, whereupon the conviction also began to spread in Switzerland that civilian defence measures were a necessity. Faced with the recurring crises that threatened from one day to the next to drive the world to the precipice of a nuclear catastrophe, the characteristic atmosphere of this newly dawning Atomic Era was one of fear. In 1951, during the course of the Korean War, the Federal Council decided that air-raid cellars should be included in all new buildings or remodelling projects. The guidelines published at the time by the Air-raid Defence Section (Abteilung für Luftschutz) of the Military Department (Militärdepartement) clearly demonstrate that such protective structures were largely intended to withstand conventional warfare scenarios, for instance involving high explosive and incendiary bombardments.⁴ The main focus lay in securing the entrances against bomb shrapnel and debris (which was achieved by simply reinforcing the rooms with timber bracings and sand sacks), the provision of fire-fighting equipment and the installation of escape routes and emergency exits. Reinforced concrete was first-and-foremost viewed as a means by which to reinforce the ceilings.

In the course of the 1950s, as thermonuclear war scenarios terrified the world and the threat of atomic radiation grew to be a prime concern, it became apparent that the perceived threats and defence measures to date no longer matched the new nuclear reality and that know-how about modern nuclear-shelter construction was lacking. As a response the newly founded Federal Civil Defence Office (Bundesamt für Zivilschutz, BZS) created a special task force for civil defence construction, and at the beginning of the 1960s the Research Institute for Military Construction Technology (Forschungsinstitut für militärische Bautechnik) at the Swiss Federal Institute of Technology in Zurich constituted a parallel institution dedicated to the development of construction guidelines for the Atomic Age. In order to rapidly acquire the available knowledge in the field of the effects of nuclear weapons and the corresponding means of defence construction, a small circle of civil engineers (many of them with research and professional experience in the USA), architects, physicists and chemists concentrated on setting up an international and above all US-American network of

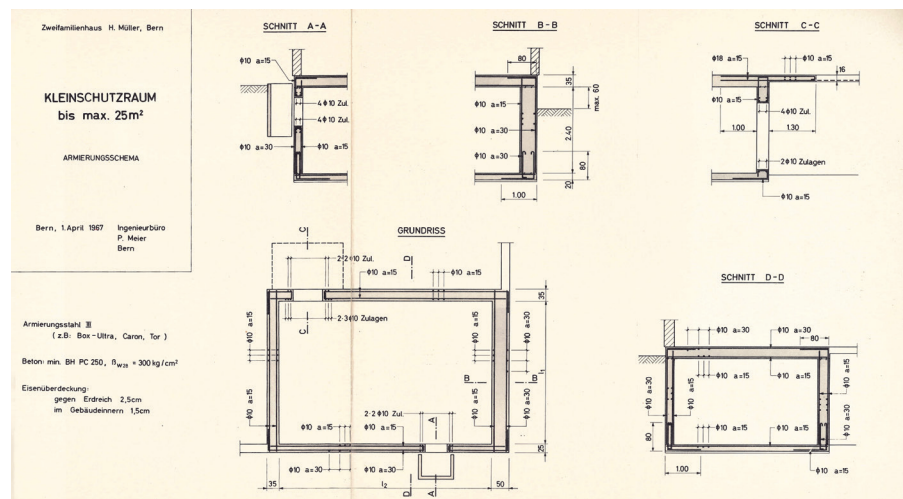
experts and on the transfer of data and studies on the effects of nuclear weapons. As of the mid-1950s the USA partly declassified technical reports in this field, aimed at giving other countries the opportunity to develop their own protective measures via this controlled access to the data.⁵

Two premises were crucial for Swiss attempts to achieve a balanced dimensioning in the question of atomic-defence shelters: first they should be economical, and second they should be effective against all the effects of a nuclear attack. In terms of the desired uniform protection, those responsible judged reinforced concrete to be an ideal construction material.⁶ Due to its mass and its ductility, when used for underground structures it was able to withstand both dynamic and static pressure, in addition providing a shield against heat radiation and primary nuclear radiation, as shown in American nuclear test trials in the Nevada Desert and in evaluations of the A-bomb attacks on Hiroshima and Nagasaki.⁷ This preference for concrete as a construction material was undoubtedly helped by the fact that at an early stage the Swiss cement industry promoted the material-technical advantages of reinforced concrete for air-raid defence and that it cultivated close ties with the officials responsible for built civil defence engineering.⁸ As opposed to the guidelines issued around 1950, by the mid-1960s the BZS stipulated that in the future civil defence shelters should solely be built in reinforced concrete. In addition, it became obligatory that all such structures be equipped with mechanical ventilation using ABC (atomic, biological and chemical) gas filters.

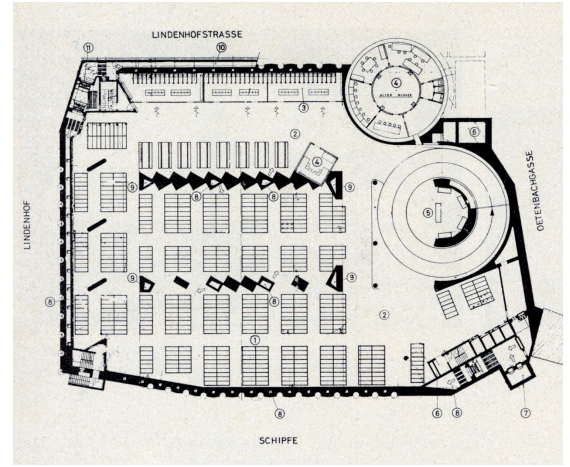
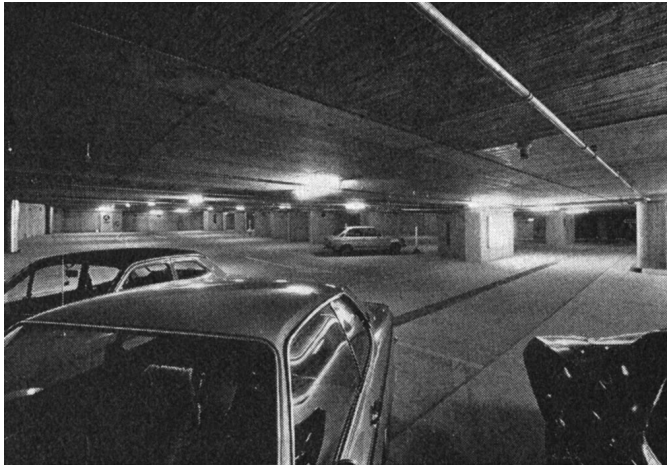
In order to achieve the premised economic rationale the experts drew on cost-benefit analyses, and by applying complex mathematical and quantitative methodologies derived from the field of operations research arrived at an 'optimal' constructional scope that promised to save the most lives per franc invested in built protective measures. The upshot of these optimisation studies was the prediction that with an expenditure outlay of 1,000 Swiss francs per person and a constructional protective scope of 1 atmosphere (a pressure resistance of 10 tonnes per square metre) the number of lives lost in Switzerland as a result of any potential attack could be reduced to one-tenth.⁹ These study findings and calculations, driven in turn by a belief in technical feasibility and a faith in progress, were then broken down into detailed standardisations for the planning and building of shelters in new buildings, as codified in the 1966 *Technische Weisungen für den privaten Schutzraumbau* (Technical Directives for the Construction of Private Shelters, *TWP 1966*).¹⁰ The reinforced concrete shelters were to be installed as deeply as possible in the terrain and, as a rule, to consist of a rectangular floor plan and cross section. As well as planning principles and detailed specifications for the concrete thickness of the roof (35 centimetres), floor (20 centimetres) and the perimeter walls facing the cellar (freestanding 80 centimetres, fully submerged 25 centimetres, partially submerged 50 centimetres), *TWP 1966* also contained information about the space requirements per shelter placement, about secure surface and sealing elements, ventilation installations or for instance the arrangement of the entrances and exits. In terms of material technology *TWP 1966* discussed the

compressive cube strength and adhesive strength of the concrete to be used and stipulated that plastering or insulation was not to be applied on the inner sides of the shelter walls and ceilings. The guidelines likewise supplied civil engineers with rules for the dimensioning and the construction of standard small defence shelters, accompanied by a reinforcement scheme and material specifications for the concrete (fig. 1).

TWP 1966 boosted shelter construction in Switzerland, helped at the same time by a swell in public finances, which defrayed 70 per cent of the additional costs for shelter construction, as well as by the simultaneous beginning of the housing construction boom. Between 1970 and 1973 residential building enjoyed growth rates of 10 per cent per annum,¹¹ entailing a corresponding burgeoning in civil defence construction. It is therefore hardly surprising that the consumption of cement exploded, rising from 4.3 million tonnes in 1966 to 6 million in 1972, representing an increase of over 40 per cent.¹² It is impossible to calculate what proportion of this was accounted for by the newly emerging concrete survival infrastructure, but that individual civil defence projects indeed used up enormous amounts of cement is clear, for instance, in the example of the Urania Parking Garage in Zurich. In the 'Peace Version' the seven-storey underground car park in the centre of the city afforded space for 610 cars (fig. 2). In the 'War Version' it served as a defence shelter that could contain 10,000 people and was to be sealed using a gigantic reinforced concrete door (fig. 3). One thousand rail carriages of cement and 460 rail carriages of reinforcing material were carted to the building site in order to construct the mass public shelter. Nevertheless, as one of the few large-scale collective shelters it was also dimensioned to provide a considerably higher protection standard, designed to withstand 6 atmospheres (a pressure resistance of 60 tonnes per square metre). The costs totalled 22 million Swiss francs, 12 million francs of this alone for the construction and installations of the civil defence shelter, including drinking-water storage tanks, two emergency power generators, thirty-four gas filters and a command system.¹³



1. Model for the construction of a small standardised defence shelter



High-Tech Capsules of the Nation and the Family

These protective shelters, considered to be the actual ‘backbone’ of the country’s civil defence, were omnipresent in civil defence brochures and official public information films of the 1960s and 1970s. Using a technicistic imagery, the films and the photos familiarised viewers with the technical aspects of the constructional and material design of these subterranean survival realms, promising ‘almost total protection’.¹⁴ They are enacted as scientifically optimised, technologically elaborated, brightly lit and mostly automated defence capsules. Tracking camera shots, positioned at eye level and moving at a walking speed, guide the viewers through clinically immaculate catacombs devoid of people, along endless corridors with fully stocked storage rooms and excellently equipped operation theatres, and past lounge chairs with carefully folded woollen blankets, chrome-covered kitchens and gleaming technical installations. The passage from the world above to the world below is mostly staged as a movement from darkness into light, or indeed overexposed light for that matter.¹⁵ This invests the grey concrete capsules with a sacred aura – an effect that is underscored in many of the films by the slow automatic opening of the steel-reinforced doors.¹⁶

Parallel to this enthronement of defence shelters as modern, scientifically optimised and overly high-tech capsules, what is also identifiable is an ideological cloaking of these shelters in official descriptive strategies. In this process engineers and civil defence authorities compounded the subterranean concrete cells with the traditional self-perceptions and politico-cultural arsenal of images propagated after the Second World War under the auspices of a revived *Geistige Landesverteidigung* (i.e., spiritual or intellectual national defence), targeted at consolidating a common spirit of defence and resistance against Communist totalitarianism.

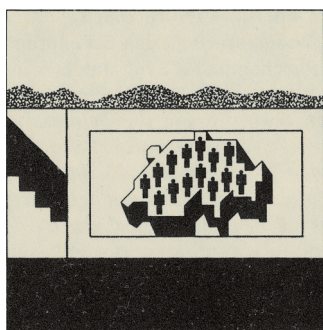
Already in the 1950s the proponents of air-raid defences extolled the virtues of such constructions as the ‘citizens’ reduit’, an image the population was judged to ‘organically’ identify with.¹⁷ Alongside the symbolic force of the reduit mentality, which following the war advanced to become a national myth,

2. ‘Peace’ modus: garage level in the Urania Parking Garage

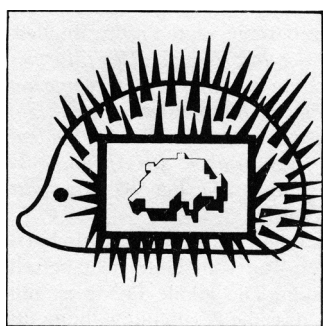
3. ‘War’ modus: shelter-space organisation of a level in the Urania Parking Garage

engineers and officials resorted to one of the central Swiss self-images that had been in circulation since the very beginning of the twentieth century: that of peace-loving ‘island’ sealed off from the outer world. Thus one civil defence engineer described the subterranean concrete shell in 1968 as follows: ‘The image of a defence shelter, that continues to live on in an sea of destruction after the breaking off of contacts to the world outside, can be vividly encapsulated in the term “island of survival”.’¹⁸ This idea of Switzerland as an island buffeted by enclosing seas and isolated from the outside world corresponds to a topos that had already been perpetuated in postcards and paintings during and shortly after the First World War.¹⁹ As Peter von Matt demonstrates, this vision of ‘Switzerland as a small pure homestead on an island in the stormy ocean’ experienced a revival during World War Two and helped to obscure the profound political and economic dependencies the country found itself in.²⁰ After the defeat of Nazi Germany civil defence planners transposed this island metaphor to the new underground reinforced concrete shells, now intended to serve as the locus of survival for Switzerland and everything Swiss.

That which was to be guaranteed a continued existence in such shelters was, first and foremost, to be Switzerland as a federal and nationally organised republic as an exclusively male domain. This is ideally represented in civil defence training material showing the symbolic image of a territorial map with stalwart rows of male figures visually embedded in the unbroken rectangular outline of the shell of a shelter (fig. 4). However, the inherent substrate, and the ideological core of Switzerland during the Cold War, was situated in the bourgeois image of the family. The defence shelter was directly referred to as the ‘survival island of the family’ in which the ‘democratic substance of Switzerland’ could continue to exist.²¹ In the symbolic images of the bunker as a protective shell the family appears mostly as a nuclear one – consisting of a father, mother and one or two children (and occasionally a dog) – endowed with the traditional middle-class patriarchal role allocations and attributes. The husband and father reads a newspaper, controls the technical equipment and is responsible for listening to the radio. The wife and mother, dressed in a prim skirt, looks after the children and is responsible for feeding the family and preserving family bonds.²² This image of the nuclear family in the shelter acts simultaneously to underline the preserving unity of national independence, thus aggregating the civic cell of national resistance’.²³ The resistance required to triumph in the total war with the enemy from the East is sustained not merely by a spirit of combat directed outwardly but, more crucially, in an inward ideological fortification. This dualism of an externally combat-ready and internally integrated defensive collective community found its most striking expression in the symbolic image of the hedgehog, its spiky rear directed to the East and its body framing the rectangular shell of a shelter with an integrated territorial map of Switzerland (fig. 5). As an emblem of *Geistige Landesverteidigung* and the embodiment of ‘Fortress Switzerland’, the hedgehog was also manifested in the Swiss National Exhibition that took place in Lausanne in 1964, in the form of an army pavilion adorned with 141 spikes.²⁴ As opposed to the symbolic image of the hedgehog



4. Federal male-dominated republic Switzerland in the shelter, 1976



5. Swiss territorial map framed by a civil defence shelter within the hedgehog, 1976

in the civil defence literature, in which the material of the rectangular shell of the shelter remains unarticulated, the spikes of the army pavilion made of heavy concrete pyramids directly amalgamated with the popular ideological self-image of Switzerland.

Cold and Dark Concrete Worlds

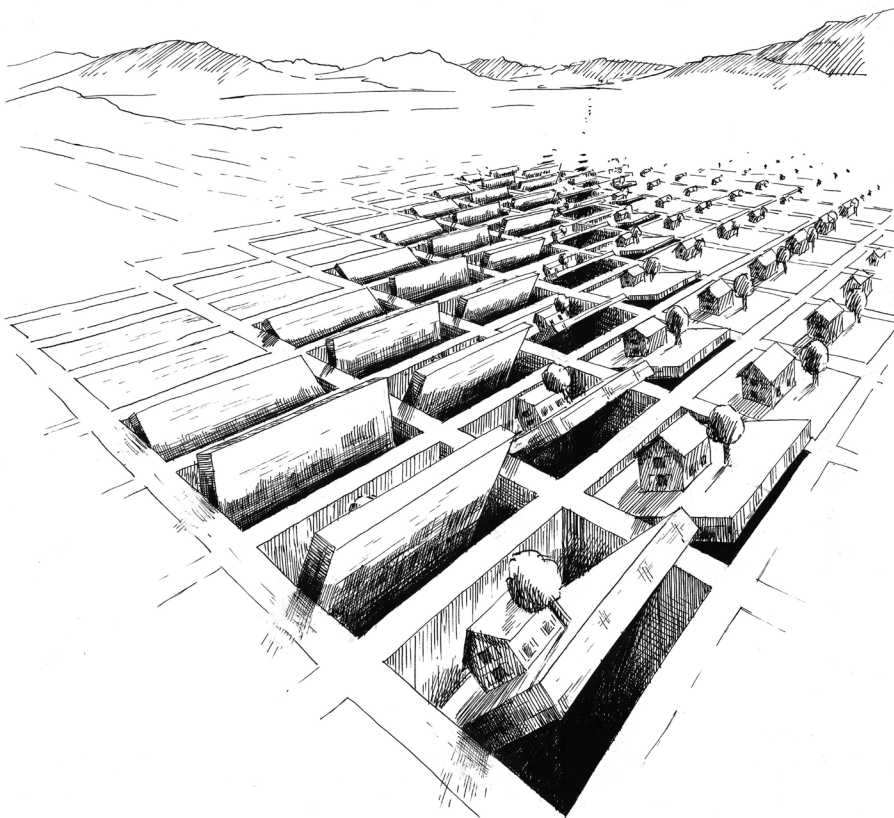
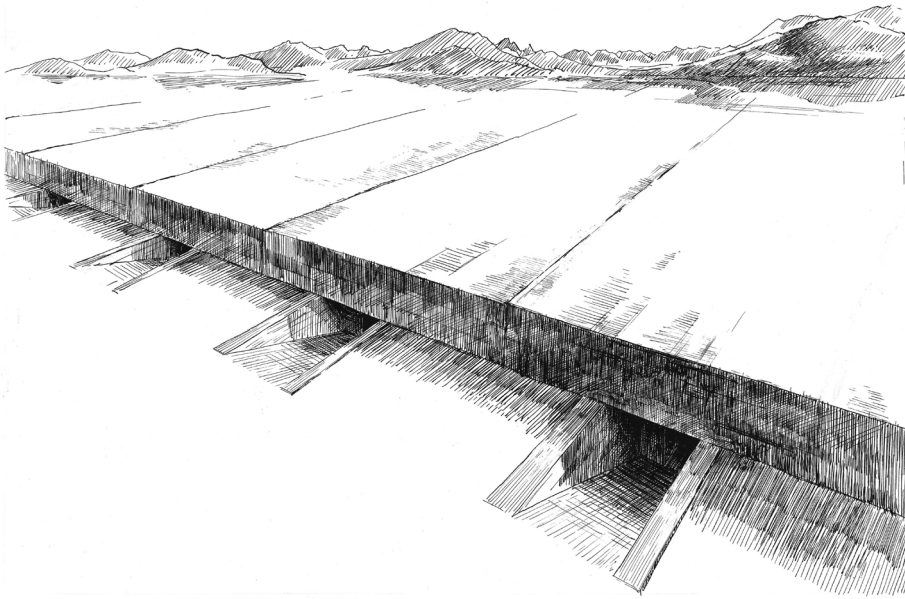
In the 1950s and 1960s, when civil defence was politically propagated and the constructional-technical guidelines were formulated, this future narrative of technical progress, economic growth and social prosperity exercised a powerful integration pull. However, during the course of the 1970s, and in particular by the beginning of the 1980s, the symptoms of a new understanding of the future began to make themselves felt. A general perception of economic and social crisis, triggered by the Oil Shock of 1973, became combined with fears about the depletion of natural resources and the destruction of the environment. Expectations about the future darkened further with the increasingly negatively connotations associated with urbanisation and the sprawling over-development of the national landscape, made all the more acute by a background of heightened geo-political tensions. This last factor worsened with the NATO Double-Track Decision of December 1979, which justified the installation of new nuclear-warhead rockets and missiles in Western Europe, ushering in a renewed climax in the East-West Conflict.

In around 1980, as these various feelings of crisis intensified, civil defence infrastructure projects began to be greeted with ever more hostility. Defence shelters, and namely the concrete used to build them, became objects of radical dissent or indeed came to be demonised by a combination of peace activists, rioting youths and socially critical writers, culminating in an outright rejection of the innate rationale of these concrete shells and their promises of protection. The youth protest movement of the early 1980s, which exploded in cities like Zurich ('Greenland'), Geneva ('Calvingrad') and Lausanne (*Lôzane bouge*) against the perceived coldness and rigidity of society, dethroned concrete and adopted it instead as the intrinsic symbol of alienation and of a complete stasis in any vision of the future. Thus, for instance, the slogan 'No Future' appears in the activist film *Günz, Mündel, Riss und Würm* (lit. Günz, Legal Minor, Crack and Worm) as an accompaniment to a tracking shot along a sequence of underground concrete rooms reminiscent of a civil defence installation.²⁵ 'Concrete – grey like the future', 'Do you want total concrete?' or 'How much concrete does a person need?' were some of the graffiti sprayed by the youth-movement activists on Zurich's concrete walls in the early 1980s.²⁶ In 1984, after the struggle for autonomous spaces had shifted to the house-squatting scene, in an insolent act of defacement and refusal a group of young activists encased their *Zivildienstbüchlein* (the personal document recording civil defence service) in cement in a concrete cylinder. This was then sunk in the River Sihl, accompanied by a speech emphasising that as a contemporary monument the concrete block articulated how they felt about the institutions and an entire country that had become cold

and unyielding. 'Civil defence', so ran their battle cry, 'means nothing but opposition for us from now on'.²⁷

Peace activists, on the other hand, focused their criticisms in particular on the concrete of the civil defence shelters and on the official promises of survival and protection they were said to offer, which considering the studies about a so-called 'nuclear winter' and the devastating long-term effects of an atomic war seemed less and less believable. Instead of survival islands, they referred to them as 'concrete coffins', 'concrete dungeons' and 'concrete sardine tins' that would imprison the population in the 'torpid weapon-bristling hedgehog' and ultimately leave them to perish.²⁸ During a large Demonstration for Peace and Immediate Disarmament in December 1981, Switzerland was also described as a society with a 'worldwide common destiny', thus rejecting the image of the country as an island. One female speaker asked the 30,000 women, men and children who had gathered on the Bundesplatz in front of the Swiss parliament what exactly they thought they were going to still do 'crammed up' in these 'concrete holes' when faced with an 'atomic holocaust'.²⁹ Personal fear was invoked by her and other activists as the driving force and a new sanity against the 'cold' rationality of the experts that was based on mathematical calculations – an opposition that challenged the 'necrophilic' thinking of civil defence experts extolling atomic bunkers instead of nurturing 'liveable' lives.³⁰

Writers likewise preoccupied themselves in their novels with the impossibility of survival following a Third World War, mercilessly depicting scenes of death in the concrete cells in all its wretchedness. An early and little-known example of this rising wave of German-language apocalypse literature is Gertrud Wilker's story 'Flaschenpost' (i.e., message in a bottle).³¹ Her text, begun in 1969 but first published in 1977, describes the last weeks and days of a woman who, together with her two teenage children, has sought refuge in the collective public shelter of a Swiss municipality after the explosion of an atomic bomb. In order to stop going 'bunker stir-crazy' and to fight against forgetfulness the protagonist writes out 'radiation-resistant' words in her notebook – words intended to reinvigorate life again afterwards.³² They are interspersed in the story with flashbacks to the time before the nuclear attack and with detailed scientific descriptions of the effects of nuclear weapons and measures to shield against the blast waves and the nuclear radiation. Thus, for instance, Wilker calculates that a protective layer of 12 centimetres of concrete are necessary to reduce the primary radiation by half, and 6 centimetres of concrete to reduce the secondary radiation.³³ As more and more people begin to die in the shelter and the life of the protagonist also begins to rapidly fade, a handful of youths, including her daughter and son, ram the concrete doors open. With no hope left and with her last remaining strength she records: 'Well, the bolt is gone. I think they're just pushing the concrete door-wings apart. They can see daylight (I can't). I don't want to think how intense the radiation dose must have been for them and what this means for them.'³⁴ With her last words she writes 'I can't hear anything anymore either. It's becoming cold, always colder.'³⁵



6. Switzerland as a concrete slab, drawing by Bernhard Chiquet, 1988

7. Swivelling concrete compartments, drawing by Bernhard Chiquet, 1988

The perhaps most negative visual monument to a cemented-over Switzerland was set by the book *Schutzraum Schweiz* (Shelter Switzerland), issued in 1988 by a group of historians, left-wing politicians, peace activists and doctors.³⁶ The cover of the book is adorned with the drawing of a concrete roof surface from which a steep ramp leads down into the dark concrete underground (fig. 6). In the book itself one of these ramps is populated by a faceless mass of people, pressing themselves into the massive concrete container as tank battalions begin to already rumble over up above. A further drawing shows Switzerland as a subdivided landscape of single-family houses. Each house stands on a concrete lid, whereby some of the concreted-over segments are already tilting downwards, thus swivelling the individual houses down into the underground darkness (fig. 7). Switzerland as a whole degenerates into an endless concrete slab and a death zone.

Notes

- ¹ Jost auf der Maur, *Die Schweiz unter Tag: Eine Entdeckungsreise* (Basel: Echtzeit, 2017), 114.
- ² For the development of nuclear-shelter construction know-how see Silvia Berger Ziauddin, 'Superpower Underground: Switzerland's Rise to Global Bunker Expertise in the Atomic Age', *Technology and Culture* 58, no. 4 (2017), 921–54.
- ³ See Beat Tscharner, 'Die Wiedereinführung der privaten Luftschutzkeller', *Protar* 18, no. 7/8 (1952), 78–81, here 79.
- ⁴ The 1949 guidelines for built air-raid protection focused on high-explosive, incendiary, rocket-propelled and winged bombs, as well as artillery and infantry shells, and only mentioned the effects of an atom bomb in passing. See Beat Tscharner, 'Die neuen Richtlinien für den baulichen Luftschutz I', *Protar* 15, no. 9/10 (1949), 105–14.
- ⁵ See Berger Ziauddin, 'Superpower Underground' (see note 2), 928.
- ⁶ See Walter Rimathé, 'Bauliche Massnahmen zum Schutz gegen Atombomben', *Cementbulletin* 26, no. 10 (1958), 1–8; Theo Ginsburg and Alex Haerter, 'Technische Grundlagen des Schutzraumbaus', *Neue Zürcher Zeitung*, 23 June 1965.
- ⁷ See Samuel Glasstone, *Die Wirkungen der Kernwaffen* (Cologne: Heymanns, 1960), 633; Alex Haerter and Gottfried Schindler, *Handbuch der Waffenwirkungen für die Bemessung von Schutzbauten*, implemented by the Arbeitsgruppe für den baulichen Zivilschutz für das Bundesamt für Zivilschutz (Bern: Bundesamt für Zivilschutz, 1964), 320.
- ⁸ See 'Der Beton im Luftschutz', *Cementbulletin* 9, no. 7 (1941), 1–6; Rimathé, 'Bauliche Massnahmen' (see note 6).
- ⁹ See Berger Ziauddin, 'Superpower Underground' (see note 2), 937.
- ¹⁰ Eidgenössisches Justiz- und Polizeidepartement, Bundesamt für Zivilschutz, *TWP 1966: Technische Weisungen für den privaten Schutzraumbau* (Bern: Eidgenössische Drucksachen- und Materialzentrale, 1966).
- ¹¹ P. G. Rogge and H. Bülow, 'Die Stellung der schweizerischen Bauwirtschaft in einer sich ändernden Umwelt', *Schweizerische Bauzeitung* 93, no. 4 (1975), 56–61, here 57.
- ¹² Georges Spicher, Hugo Marfurt and Nicolas Stoll, *Ohne Zement geht nichts: Geschichte der schweizerischen Zementindustrie* (Zürich: Verlag Neue Zürcher Zeitung, 2013), 199.
- ¹³ 'Der Schutzraumdienst am Beispiel der Organisation im öffentlichen Schutzraum Urania', *Zivilschutz* 22, no. 11/12 (1975), 348–51; 'Grösstes Zürcher Parkhaus in der Innenstadt offen', *Tages-Anzeiger*, 30 November 1974; 'Doppelleben im Untergrund', *Neue Zürcher Zeitung*, 23 October 2012.
- ¹⁴ According to a diagram in the red Civil Defence Book, which in 1969 was sent to all Swiss households, defence shelters provided 90 per cent 'safety'. Eidgenössisches Justiz- und Polizeidepartement (ed.), *Zivilverteidigung* (Aarau: Miles-Verlag, 1969), 74.
- ¹⁵ This is impressively shown in the civil defence film *Blumen und tote Fische*. In one scene the camera moves slowly along a gloomy curved passageway before suddenly revealing the opened doors to the shelter. The light streaming from inside the installation makes the massive threshold and the doors themselves shine like an aureole. *Blumen und tote Fische*, dir. Roland Bertschinger, produced on behalf of the Bundesamt für Zivilschutz (1969), 6'41"–7'11".
- ¹⁶ *Ibid.*, 9'16"–9'26".
- ¹⁷ 'Reduit der Bürger', *Protar* 18, no. 7/8 (1952), 91.
- ¹⁸ 'Das Bild eines Schutzraums, welcher nach Unterbrechung aller Kontakte mit der Aussenwelt in einem Meer von Zerstörung weiterexistiert, kann anschaulich mit dem Begriff "Überlebensinsel" beschrieben werden' (Werner Heierli, 'Der Schutzraum als Überlebensinsel', *Schutz+Wehr* 34, no. 9/10, 1968, 120–2, here 120).
- ¹⁹ See Philipp Sarasin, 'Die Insel der Seligen und die Kultur der Bedrohung', in Brigitta Gerber and Damir Skenderovic (eds.), *Wider die Ausgrenzung: Für eine offene Schweiz*, vol. 3: *Akteure* (Zürich: Chronos, 2011), 11–34; Beatrice Ziegler, 'Switzerland: An Island of Peace', in *1914-1918-online: International Encyclopedia of the First World War*, issued by the Freie Universität Berlin 2018-04-11. DOI: 10.15463/ie1418.11239.
- ²⁰ 'Das kleine saubere Schweizerhaus auf der umbrandeten Insel im Weltmeer' (Peter von Matt, 'Kritischer Patriotismus', in *Die tintenblauen Eidgenossen: Über die literarische und politische Schweiz*, München: Carl Hanser Verlag, 2001, 131–143, here 134).

- ²¹ ‘Überlebensinsel der Familie’ (Heierli, ‘Der Schutzraum als Überlebensinsel’, see note 18, 122); ‘demokratische Substanz der Schweiz’ (Bundesamt für Gesundheit (ed.), *Zivilschutz-Konzeption 1971*, Bern: Eidgenössische Drucksachen- und Materialzentrale, 1971, 3.
- ²² See for instance *Zivilverteidigung* (see note 14), 55.
- ²³ Werner Heierli, *Überleben im Ernstfall* (Solothurn: Vogt-Schild, 1982), 120.
- ²⁴ Gustav Däniker, ‘Konzept und Entstehung der “wehrhaften Schweiz”’, *Schweizer Soldat* 39, no. 17 (1963/1964), 385.
- ²⁵ Günz, Riss, Mündel und Würm, prod. Geschichtsladen Zürich, Lehrlingstreff Zürich, Videoladen Zürich (1986), 3’33” (Schweizerisches Sozialarchiv Zurich, F_Videos Stadt in Bewegung/Vid V 033).
- ²⁶ ‘Wollt ihr den totalen Beton?’ ‘Beton Grau wie die Zukunft?’ ‘Wieviel Beton braucht der Mensch?’ (Schweizerisches Sozialarchiv Zurich, Fotoarchiv Gertrud Vogel, F 5107, Na-10-107-032; Na-10-116-007; Na-10-115-026)
- ²⁷ ‘Heisst für uns fürderhin nichts als Widerstand’ (Schweizer Fernsehen DRS, ‘Zivilschutz-Verweigerer’, *DRS Aktuell*, 9 November 1984; Günz, Riss, Mündel und Würm, see note 25, 40’30”).
- ²⁸ ‘Nuklearen Winter’, ‘Betonsärge’, ‘Betonverliese’, ‘Sardinienbüchsen aus Eisenbeton’, ‘waffenstarrten Igel’. Igel Konradin Kreuzer, ‘Der schweizerische Zivilschutz: Ein Beitrag zum Krieg’, in Hans A. Pestalozzi, *Rettet die Schweiz: Schafft die Armee ab* (Bern: Zytglogge, 1982), 129–39, here 135; Konradin Kreuzer, ‘Die Bunkerschweiz’, *Arch+* 16, no. 71 (1983), 26–8, here 26; ‘Rede von Christine Perren anlässlich der Friedensdemonstration vom 4.12.1981 in Bern’, in Komitee für Frieden und Abrüstung (ed.), *Friedensdebatte in der Schweiz* (Bern: A.G. Friedensdebatte KFA, 1982), 16; Flugblatt Schutzraum – Schutzraum (Schweizerisches Sozialarchiv Zurich, QS 45.3C*25, 1960–1984).
- ²⁹ ‘Weltweite Schicksalsgemeinschaft’, ‘eingepfercht’, ‘Betonlöchern’, ‘atomaren Holocaust’ (‘Rede von Christine Perren’, see note 28).
- ³⁰ See Kathrin Huber, ‘Angst, Bedrohung, Verteidigung aus weiblicher Sicht: Referat in der Arbeitsgruppe “Leben ist bedroht – Sicherheit ist gefragt – Was für eine Sicherheit”’, in Frauen für den Frieden Region Basel (ed.), *Aufbruch der Frauen: Dokumentation Frauen-Symposium, 25-26 April 1987 in Basel* (Basel: Frauen für den Frieden Region Basel, 1987), 66–70, here 70.
- ³¹ Gertrud Wilker, ‘Flaschenpost’, in *Winterdorf: Erzählungen* (Frauenfeld: Huber, 1977), 47–90.
- ³² *Ibid.*, 60, 70.
- ³³ *Ibid.*, 53.
- ³⁴ ‘Also ist der Riegel weg. Sie schieben, glaube ich, eben die Betonflügel auseinander. Sie können Tageslicht sehen (Ich nicht). Ich will nicht daran denken, wie stark die Strahlungs-dosis für sie gewesen sein muss und was das für sie bedeutet. [...] Auch höre ich nichts mehr. Es wird kalt, immer kälter’ (*Ibid.*, 86).
- ³⁵ ‘Auch höre ich nichts mehr. Es wird kalt, immer kälter’ (*Ibid.*, 89).
- ³⁶ Peter Albrecht et al. (eds.), *Schutzraum Schweiz: Mit dem Zivilschutz in die Notstandsgesellschaft* (Bern: Zytglogge, 1988).