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# ‘Do You Have Celtic, Jewish or Germanic Roots?’ Applied Swiss History before and after DNA

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Since the project for sequencing the human genome has been launched, actual and potential applications of medical genetics and gene technology, such as preimplantation diagnostics, embryo selection, cloning, genetic modification of organisms and personalized medicine, have prompted euphoric as well as alarmist assessments regarding their societal impact. Scholars in cultural studies see a new genetic determinism and racism at work, and have warned against the possibility of a new eugenics and of discrimination on the basis of genetic traits (for example, Duster 2003 [1990]; Kevles 1997). On the other hand, the transformative force of the new biosciences has also been worked out, such as in the implosion of traditional notions of ‘nature’ and ‘culture’ and the transcending of conventional ideas of kinship (for example, Franklin 2001: 303–25; Haraway 1991, 1992, 1995; Rabinow 1996 [1992]). As a shorthand, these differences may be reduced to an emphasis on either ‘the old’ or ‘the new’: are individual and collective identities, such as races, ethnicities or nations, (re)biologized and are we faced with the nightmare of the progressive feasibility of eugenics? Or do the specificities of the current political and economic context of genetics and genomics render such fears about the (re)animation of the demons of the past pointless? Hardly anyone takes a position at either of the extreme ends of what is actually a spectrum of estimates. Neither is there a simple continuation of ‘old’ biological categories such as types and races, nor has there been a complete break away from the ‘old’ triangle of biology, (national) territory and quality in a context of globalized, market- and media-driven, neoliberal societies. Most importantly, recent scholarship has made clear that the different life sciences interact in complex and diverse ways with different contexts of application, resulting in a diversity of actual formations along the ‘old/new continuum’ (Sommer 2008a, 2010, forthcoming).

In this chapter, I engage with a particular application of a specific genetic science mostly in a restricted cultural context: the commercialization of human population genetics in a so-called genetic ancestry tracing company that is located in Switzerland. Despite a considerable overlap in interests, practices, technologies, personae and corporate bodies/institutions, human population genetics (also referred to as anthropological genetics or genetic anthropology) differs from medical genetics and genomics in important ways, the most obvious being its backwards-orientedness. Scientists who are involved in population-genetic projects tend to emphasize that (in contrast to medical projects) they produce purely anthropological knowledge, by which they mean politically neutral, historical knowledge, without practical/commercial intent. However, as genetic anthropology is always already involved in identity politics of individuals and groups – its goal is the establishment of phylogenies and evolutionary histories – this distinction is naïve. It is not that human population genetics, in contrast to medical genetics, is not applied; rather, it is the specific kinds of application that differ from medical genetics. If we are interested in the changes brought about in ‘identity politics’ by the introduction of population-genetic techniques, we must look at these contexts of application ‘before and after DNA’. As indicated by the term ‘genetic history’ often used by practitioners, we are dealing with applied kinds of history and historically founded identities (Sommer 2008a, 2010, forthcoming).

In order to see how the commercial DNA services for the determination of one’s kinship and history relate to previous practices of biological and humanistic applied history in my case study, I take a brief look at identity-political uses of the past in Switzerland. I then move on to the ways in which the genetic ancestry tracing company under concern enters this cultural space. I analyse appearances and representations of the company (mainly) in the Swiss media, and some of the ways in which (mainly) Swiss customers appropriate personalized genetic history and identity. As we will see, the forms of implementing, engaging with or rejecting genetic knowledge differ between customer groups. In the end, I return to some aspects of the question about ‘old versus new identity politics after DNA’ in relation to my particular case study.

### **Applied Swiss History before DNA: Ur-folk, Helvetians and *Homo alpinus***

Guy Marchal (2006) has studied historical culture and the politics of history in Switzerland. More precisely, he introduces the term *Gebrauchsgeschichte*, which refers to the temporary conversion of history into an article of everyday use; it designates a history serviceable to a particular (identity political) goal in a given cultural context. It conceptualizes what I mean by the English term ‘applied history’. Marchal shows that as early as the fifteenth century, the Swiss believed themselves to be a chosen people in analogy to the Israelites. They built a myth of themselves as an *Ur-folk* (*Urvolk*), an indigenous people with the right to self-government. This notion served to counter the accusation that the peasant uprising (*Bauernaufstand*) was a sin against a God-given social order. Because the legitimation of the claim for freedom against the

entitlement of the nobility and princes was founded on an origin as an independent rural folk, the peasant became the figure of identity for the Swiss Confederation. While in the course of the seventeenth century, it was displaced by the invention of the virgin Helvetia, the peasant, specified as an alpine shepherd, was revived as a central trope during the Enlightenment. The stereotypical character of the Swiss people as for example marked by incorruptibility – so famously sung about in Albrecht von Haller's poem of the Alps (*Die Alpen*, 1729) – became inextricably linked with the mountainous country. Coupled with ideas from natural right philosophy, the claim of originally free and frugal primitives served the causes of both political reform and moral education.

With the foundation of the nation state in 1848, the story of the autochthon mountain people turned into a national myth. By the end of the century, this myth stood in opposition to a critical history written by a modern scholarly discipline, but it had important political work to do. Switzerland was surrounded by nations that increasingly founded their identity on a common race and language. The Swiss therefore felt pressed to justify the existence of a plurilingual and ethnically diverse state of the size of Switzerland in the midst of much larger and more homogeneous nations. The response was a national discourse that based the 'oldest republic on earth' not on racial unity but on a common history marked by democracy and independence. The Swiss national identity was therefore not primarily sought in a common biology; rather, it was rationalized by means of a shared history and beliefs that gave unity to racial, ethnic, cultural and linguistic diversity. However, this is not to say that there were no attempts to apply the Aryan theory to Switzerland (for example by Paul Lang of the National Front) or to define the nation biologically (see Kreis 1992).

A relatively harmless but popular example of the latter approach is the attempt of the archeologist Karl Keller-Tarnuzzer (1936) to provide the Swiss with a deep history and longstanding identity through such channels as the newspaper of the canton Thurgau (*Thurgauer Zeitung*). He built two pillars for Swiss identity to rest on, which he drove as deep as possible into the archaeological layers. The first pillar was the antique tribes of the Rhaetians (*Räter*) and the Helvetians. As was common at the time, Keller-Tarnuzzer thought that the Rhaetians had descended from Veneto-Illyrer, who immigrated into the eastern part of today's Switzerland around 400 BC (a theory that has been increasingly discarded since the 1950s). The Helvetians belonged to the Indo-Germanic people of the Celts and Gauls, who inhabited the country between Lake Geneva and the Rhine. There were additional Celtic tribes such as the *Rauriker* in the area of today's cantons of Basle and Berne, the *Allobroger* in the canton of Geneva, the *poeninischen* tribes in the canton of Wallis and the *Lepontier* in the south. To make matters worse, there were also successive invasions into the area of Switzerland. Besides the Romans (15 BC), Germanic tribes entered these regions from the fourth century onwards; these were mostly Alemanni in today's German-speaking part, Burgundians in the French-speaking part and Langobards in the Italian-speaking part. Confronted with what could easily indicate historical discontinuity and ethnic diversity, Keller-Tarnuzzer chose to concentrate on the

Rhaetians and Helvetians, and to emphasize how they had stubbornly maintained their own tradition during Roman rule and in the face of the invasion of Germanic tribes.

Keller-Tarnuzzer described these Helvetian Celts after Poseidonius as tall, blond warriors with scrubby manes hardened by soap and with moustaches covering their mouths. Once upon a time, they wore long trousers and sleevecoats under plaid-collar jackets and were amply decorated with golden rings and necklaces. Their minds were sharp, their words as quick-witted as their weapons were fast. Constantly thirsty and cantankerous, they sat on the bare ground in their round huts, roistering and boasting, pleasing themselves in tragic poses, then suddenly falling into bloody strife. In battle, they wore man-sized shields, long swords and lances, and helmets adorned with horns or animal figures; their war cries were as fearsome as their defiance of death.

Keller-Tarnuzzer's second pillar was the lake dwellers. Their role for Swiss identity becomes most obvious in the last chapter of the offprint *Die Herkunft des Schweizervolkes* (*The Origin of the Swiss Folk/Nation/People*), headed 'Swiss Blood' ('*Schweizerblut*'). Here, one recognizes the motivation for his search of Swiss biological origins in the fear of an appropriation of Switzerland – at least of its Alemanni – by the Third Reich. His strategy was to distinguish between visible or superficial cultural difference and hidden or essential biological unity: even though culturally and linguistically the Swiss might seem a conglomerate of Germans, French and Italians, biohistory proved the Helvetian unity. This is where the lake dwellers came in. These original inhabitants, who once populated the area of today's Switzerland quite densely, had not been displaced by the later immigrants into the territory; rather, their blood blended with that of the incoming Celtic and Germanic tribes. It was through this biological heritage reaching back in time to the Stone Age that Keller-Tarnuzzer defined the unity of the contemporary Swiss and their difference from the northern neighbour: 'There can be no doubt that the blood of the lake dwellers lives on in today's Swiss, and not to a small degree' (1936: 32, translation mine). In his instrumentalization of the lake dwellers at this moment of crisis, Keller-Tarnuzzer could draw on a living and applied history that had revived 'the ancestors of the Swiss' at world exhibitions, in theatres, as motifs in the fine arts, as themes in pageants, etc., since the first discoveries in the middle of the previous century. Not only did different segments of the Swiss populace in the second half of the nineteenth century imagine and engage with the legacy of the lake dwellers differently, they could also both serve to illustrate cultural progress from humble beginnings to the present state of industrialization and at the same time – towards the end of the century – warn against the corrupting effects of too much civilization and the decay of bourgeois virtues (Kaeser 2009; Kautz 2000).

Another biohistorical trope from applied Swiss history is *Homo alpinus* – the biologization of the Swiss alpine peasant myth. As early as the opening decades of the eighteenth century, the Ur-Swiss (*Urschweizer*) were described in Johann Jakob Scheuchzer's natural history as alpine dairymen (*Senn*) and hunters (*Gemsjäger*), similar to the first people on earth. In accordance with the environmental theory of

the day, he thought the Swiss – their physical, mental and moral nature – had been moulded by the rough life in the Alps. Scheuchzer was therefore instrumental for the construction of *Homo alpinus (helveticus)*, a strong, healthy, hardworking, patient, perseverant, good-natured but autonomous human type. According to Scheuchzer, the type's prudence, courage, piety and moderation suited him well for the arts, the sciences and in particular for warfare. Scheuchzer's understanding was also illustrative of the melding of the belief in an originally free Swiss – in his case biocultural – type with demands for democratic rights grounded in natural law (Scheuchzer 1746; see also Marchal 2006: 68–69; Kempe 2003: Chapter 9).

In the second half of the nineteenth century – again following general trends in the history of anthropology – *Homo alpinus* was defined more rigorously in biological terms by Karl Ernst von Bear. Von Bear conferred this species name to the Rhaetians, drawing on their description by Anders Adolf Retzius as a brachycephalic, that is broad- and short-headed, pre-Celtic Ur-race of the Swiss Alps. Like the Swiss peasant, shepherd, dairyman or hunter, the brachycephals in general were regarded as indigenous people of Europe, but in contrast to the international philhelvetian image of the Swiss alpine primitives predominant during the Enlightenment, the brachycephals' capacity for culture was considered to be limited (Schmutz 2006).

In the maelstrom of the growing measurement-craze in physical anthropology, attempts were made to fix the fluid figures of the lake dwellers, the Helvetians and *Homo alpinus* in bone. The paleontologist Ludwig Rüttimeyer and the physician and anatomist Wilhelm His (1864) analysed towards 200 'Swiss' crania to determine the typological composition of Switzerland. In the historical crania, they identified the remains of 'our Celtic ancestors', the Helvetians, as well as of the Romans and Burgundians – types that they also discerned in pure and mixed states in the present populace. They ascribed the prehistoric skulls of the lake dwellers they had at their disposal to the same tribe as the Helvetians. However, the largest part of today's Swiss, about three-quarters, were attributable to a type named *Homo alpinus* by von Bear, which Rüttimeyer and His speculated might have had the same origin as the Alemanni who later entered the territory of today's Switzerland. But rather than following the traditional interpretation of the 'small' brachycephalic skulls as deficient, they questioned the association between cranial and mental capacity (Rüttimeyer and His 1864).

The analysis of the biological types of the Swiss was brought to its empirical apex at the chair for anthropology installed at the University of Zurich under Rudolf Martin. By 1932, Martin's successor, Otto Schläginhaufen, who had earlier tried the tools of his trade on lake-dweller remains, had measured 35,000 recruits. However, in the attempt that was now clearly driven by the institute's interest in (Swiss) race hygiene, *Homo alpinus* dissolved, with only about two per cent of the population attributable to what he considered the pure Swiss type (Schläginhaufen 1946 and 1959; see also Chaoui 2004; Keller 2006).

## Applied Swiss History after DNA: iGenea

Nowadays, we may react to the historical attempts to find the Swiss biological type of *Homo alpinus*, and to establish the Swiss bloodline linking lake dwellers with the Celtic Helvetians and other antique tribes who inhabited the territory of today's Switzerland, with bemusement, or with incomprehension where they were situated in a context of racial hygiene and race science. Who would be interested in the biological composition of the Swiss populace from Ur- and antique folks (*Urvölker*)? Those who share this attitude might be surprised to encounter the question 'Do you have Celtic, Jewish or Germanic roots?' on the website of iGenea, a service package of the Swiss company Gentest.ch.<sup>1</sup> Even more surprising might be the method of settling this question for the individual customer. iGenea invites to 'discover your history' from your DNA. Two years ago, the directors of Gentest.ch (which became a limited liability company in 2002) – one is a biologist – suspected that there was a European market for the genetic determination of ancestry and history. The Swiss company set out to enrich the range of their DNA products of paternity, relatedness and forensic tests with iGenea, a genetic 'origins and ancestors' product line with its own website.<sup>2</sup>

Customers may choose how many markers their Y-chromosome and/or mitochondrial DNA should be tested for, and they can combine tests, so that the prices currently range from about 200 to about 500 CHF. The DNA analyses are said to provide information on the customer's haplogroup, antic/indigenous people (*Urvolk*, antiquity, 900 BC to AD 900) and country of origin (*Ursprungsland*, Middle Ages, eleventh to thirteenth century). The haplogroup test leads back to the Stone Age. Haplogroups are described as the branches of the human family tree that has its roots in our molecular first parents in Africa. Human population genetics has reconstructed and is still reconstructing the relationships between and the migration patterns and current geographical distribution of these groups by means of comparative DNA analyses. While the haplogroup test is widely offered by genetic genealogy companies and potentially directed towards customers from all over the world, Gentest.ch has developed the genetic identification of one's 'antic/indigenous people' particularly for the European market. This test assigns the customer's maternal and/or paternal genetic line to the Celts, Germanic tribes, Illyrians, Slavs, Vikings, Iberians, Scythians, Arabians, Berbers, Persians, Turkish peoples, Finno-Ugric peoples, Baltic peoples, Huns, Gepids, Alans and Vandals, among others. These are variously called *Urvölker* in German and 'antic' or 'indigenous people' and 'primitive tribes' in English.<sup>3</sup>

In order to be able to determine a customer's 'antic/indigenous people', the company must have a so-called genetic profile of these tribes. Reminiscent of ideas such as those held by Keller-Tarnuzzer, Rütimeyer and His, the Ur-folks are thus understood not primarily in cultural terms but in biological terms:

iGENEA has specialized in the genetic origins of Europeans and can now genetically define numerous historical antic peoples. By antic peoples, we refer here to people groups from Antiquity who are defined not only by

their own language, culture and history but also by their own DNA-profile. What is important is not the common linguistic ancestry or the historical-anthropological categorization, but the individual genetic characteristics of a people.<sup>4</sup>

Again comparable to cranial types, the genetic profiles of ‘indigenous/antic peoples’ make it possible to also make statements with regard to national constituencies. For example, the company has published statistics indicating that the populace of today’s Switzerland represents the following percentages of *Urvölker*: 55 per cent Celts, 30 per cent Teutons, 10 per cent Jews and 5 per cent Slavs.<sup>5</sup> So, according to Gentest.ch/iGenea, the Swiss are a nation of mixed ancestry with a strong Celtic and Germanic influence. No big surprises here. Rather than being a revolution in Swiss identity, what used to be put in terms of ‘Swiss blood or bone’ is now referred to in terms of genes. But the notion of a certain biological heritage no longer comes along with the stereotyping of a people’s temperament or potential – or does it? The term ‘profile’ must be misleading in this context. After all, as human population geneticists emphasize, in contrast to (the metaphor of) blood, the profile of the physiognomist, and the cranial shape of the phrenologist and racial anthropologist, the epistemic object of their science says nothing about capacity or character – not even about looks. The areas of DNA studied in the genetic analysis are (mostly) presumed to be without function and are referred to as noncoding or, more colloquially, junk DNA. In other words, the new method of reconstructing biological identity, kinship and history involves pieces of DNA that are believed to be unconnected to the phenotype. From this supposed phenotypic neutrality of the epistemic object, it is often inferred that the science and the knowledge it creates are also neutral (see Sommer 2008b, 2010; on epistemic objects, see Rheinberger 1997).

However, when Gentest.ch tapped into intra-Swiss issues of identity, the notion of the Ur-Swiss, the true Helvetians, (re)emerged – and it came with traits. The Swiss public TV series *Einstein* broadcast a show about the genetic difference between the inhabitants of the towns of Basle and Zurich. The goal was to find out whether the legendary rivalry between the two towns had a genetic basis. To this purpose, the programme had Gentest.ch/iGenea test nine men with a pedigree firmly based in each of the towns (five generations in Basle and Zurich respectively, Y-chromosomal and mtDNA analyses). The ‘Ur-Baslesians’ (*Urbasler*) turned out to belong mainly to haplogroup R who had entered Europe from Siberia some 25,000 years ago. The following ancestral percentages were established: 49 per cent *Rauriker* (Celts), 22 per cent Germanic tribes, 11 per cent Slavs and 6 per cent for each of the categories of Vikings, Jews and Phoenicians. In contrast, the ‘Ur-Zurichians’ (*Urzürcher*) were largely defined as descendants of haplogroup I who had entered Europe from the Arabic peninsula. Their DNA (or the fragments that were analysed) was made up of 50 per cent Helvetian (Celts), 33 per cent Germanic, 11 per cent Viking and 6 per cent Slav ancestry. These results were not only interpreted as documenting that the Baslesians and Zurichians indeed have very different origins. Because of the Helvetian ancestry, the (then) Managing Director of iGenea called the inhabitants

of Zurich the original or indigenous Swiss (*Urschweizer*). This did more than fulfil the expectations these ‘true’ Zurichians had in the test. Despite its obviously bogus character (research questions, very small sample size, similar percentage of Celtic origin), the DNA test seemed to lend support to the mutual stereotypes as voiced by the men on the show: the people from Basle are among other things self-opinionated and those from Zurich are arrogant and without humor. Most importantly, the DNA show revived the myth of the Helvetian Celts as biologically distinct and as the indigenous Swiss people (*Schweizer Urvolk*).<sup>6</sup>

Gentest.ch/iGenea has dared to proceed even further with DNA testing as divinatory practice, to follow Stephan Palmié’s (2007) interpretation. The media reported the company’s claim that the heated nature of the soccer matches between Basle and Zurich could be explained by the Viking and Germanic genes – and it did not stop here:

These militant genes can explain ... ‘the fighting spirit’ in soccer. The Zurichians, on their part, have more Helvetian ancestors, who were engaged in trade early on – and thus laid the basis for the trading town of Zurich. According to the SF-experts, the greater Celtic share also allows an inference on why cutting-edge medicine is located in Zurich. The Celts are well known for their Druids, ‘the top-physicians of old’. (‘Die Gene sind an allem Schuld’ 2008, [www.heute-online.ch](http://www.heute-online.ch);<sup>7</sup> see also Rafi 2008)

Obviously, some of these ‘biotribal attributes’ are older than television. In fact, Keller-Tarnuzzer already identified the medical vocation as one of the – if general – Swiss characteristics, and it is interesting to compare the old descriptions of the Helvetian Celts as fearsome warriors who like to wear plaid with the somewhat comical image provided by Gentest.ch on the iGenea website (see <http://www.igenea.ch/index.php?c=42&lp=66>). Accordingly, Palmié’s observation with regard to genetic anthropology also seems to be applicable to the pre-DNA history of the physical-temperamental determination of the Swiss: ‘Genomics, like divination, gives material shape to, and thereby reproduces as social reality, the ideologies of invisible essences and agencies on which they are based’ (2007: 207).

Although in these instances ‘junk DNA’ is far from unrelated to the phenotype, Gentest.ch/iGenea’s genetic divination is most likely meant and understood as a practical joke. In case it would be taken seriously (possibly by a humourless Zurichian), Gentest.ch/iGenea, like other genetic ancestry companies, could point to the many places where it disclaimed racial, ethnic or national essences. In this respect, the article on Gentest.ch/iGenea in the magazine of the Swiss retailer *Migros* is telling. Under the again somewhat Keller-Tarnuzzerian motto of ‘the blood that pulsates through our veins’ (*welches Blut in unseren Adern pulsiert*), we are informed of the diverse ancestries Gentest.ch/iGenea has genetically established for the Swiss. The meaning of this on the individual level is illustrated by the figure of Renzo Blumenthal, an ex-Mr Switzerland. Blumenthal embodies the myth of the Swiss as a people of pristine peasants, shepherds or dairymen whose character is part and parcel



of their way of life in the mountainous country. The ex-Mr Switzerland speaks the old language of Rhaeto-Romanic still found in parts of his alpine home region, the Grisons (Vella im Val Lumnezia), where he lives with his cows of the Swiss Brown breed. The Swiss tourism agency used the image of Blumenthal as a *Homo alpinus* to lure German women into Switzerland during the World Cup of 2006 that took place in Germany. The slogan ‘Switzerland’s most handsome man Renzo Blumenthal grins after milking a satisfied-looking cow’ on Spiegel online is accompanied by a photograph of Blumenthal as pure ‘Swissness’ (retrieved 1 March 2011 from <http://www.spiegel.de/fotostrecke/fotostrecke-13416-3.html>). But iGenea has made out a Scottish ancestry (eleventh and twelfth centuries) for this essence of ‘Swissness’. The myth of an original Swiss people à la *Homo alpinus* is here only evoked to be refuted. The subversion is wonderfully visualized in a photograph showing Blumenthal in a kilt and with pipes (see Figure 5.1). Furthermore, despite the DNA test, Blumenthal is a Scot by choice, because his maternal ancestry has been traced to German-speaking Europe for the same time period (Bieler 2007). That Blumenthal chooses to appropriate the Scottish identity must be attributed to the current Scottish ethnohype as it is celebrated in films, at festivals, by music bands and in computer games (see Hesse 2008) rather than to a biological determinism associated with DNA testing.



Figure 5.1. Ex-Mr Switzerland Renzo Blumenthal Celebrates his ‘Scottish Genes’. Photo © René Ruis, used with permission.

A similarly flexible and open engagement with genetic roots is for example evidenced by Philippe Welti, who was portrayed in the media as someone who had been convinced of a Latino ancestry, only to find out through iGenea DNA tests that his Y-chromosome is from Sweden and belongs to the Ur-folk of the Vikings, while his mtDNA makes it possible to trace him to Germany and to Germanic tribes. The most serious concern arising from this new identity is for Welti to decide whether he should now favour the Swedes and Germans at the European soccer games (Welti 2008).

With Welti and Blumenthal we have entered the sphere of personal genetic history and identity, which lie at the heart of the iGenea commercial services – even if these are never independent from the genetic profiles of groups such as ‘indigenous/ antic peoples’. The reactions of the two men to the unexpected test results seem quite representative of the average iGenea customer of which there are only several thousand in Switzerland. While Welti was disappointed in his attempt to find the genetic basis of his love for a warm climate, the sea, Italian cuisine and French wine, he was quick to link his haplogroup result to his interest in Islam and the Arabic world. Blumenthal, on his part, considered acquiring a couple of Scottish highland cows. Other statements from Swiss iGenea customers regarding the genetic determination of ‘their indigenous people’ are in a similar vein:

To my great surprise, we learned through a DNA-Test that we are descended from the sea-faring Phoenicians. Moreover, we learned that our ancestors came from the modern-day Lebanon/Syria with their city states such as Tyre and Carthage, sailing to Italy, and must have migrated to Switzerland from there. It is really fascinating to find out that genes can tell us so much. It also seems personally fascinating to me that I always felt drawn to the Mediterranean as a child. Maybe there’s more passed on in our genes than we think.<sup>8</sup>

Many thanks for your rich answers and for my ‘desired result’. It is somehow strange. Since I have been about 20 (now 38) I have been drawn to the North ... my interest were growing more strongly towards the Vikings. Bought a lot of literature and somehow a curious familiarity arose at old Scandinavian sites. Perhaps the genes store more than we know.<sup>9</sup>

Like many other customers, these have internalized the metaphor of a historical narrative written into our DNA and have entangled the genetic identity and history with their autobiographical memory. The gene is here a mystical object, through which an individual can inscribe himself or herself into a fantastically present past (see Sommer 2008a, 2008b). Again, the flexibility and ease with which personal memories and information derived from DNA analysis are mutually accommodated suggest that there is nothing particularly unsettling about genetic history. Nor is it associated with the search for a Swiss biological essence – other than in an obviously humorous way. Rather, as the above quotes indicate, people combine ancestry tracing by DNA with other products from a genealogy and living history industry

such as historical exhibitions, books and TV documentaries about history, historical novels, mythos films, historical (re)enactments and history parks. iGenea customers exchange information on such sources to provide the names of their ‘indigenous peoples’ with stories and to put faces on their DNA sequences.

For the same reason – i.e., the production of meaning and the tapping into the cultural/national memory – iGenea plays on the old myth of the original Helvetians, and the media ransacks the junk room of Swiss *Gebrauchsgeschichte*. They thus spice up the genetically derived numbers with bits and pieces of well-known stereotypes, such as the Helvetian Celts and the Swiss peasants and mountain people. But at the same time, the lake dwellers experience a new hype without the help of genetics. For example, in 2007, ten Swiss selected by Swiss public television withdrew to a reconstructed village of lake dwellers (Gemeinde Pfyn, Thurgau, thirty-eighth century BC) to try their hand at Neolithic sustenance. For four weeks, they engaged in a living science experiment under the close scrutiny of the TV viewers at home.<sup>10</sup> To give another example, the open-space museum Laténium on the shore of Lake Neuchâtel offers visitors an experiential and experimental grand tour through our history, from the Neanderthals via the Celts to the lifeworld of people in the Middle Ages. Here too, the lake dwellers play a special role. A temporary exhibition has recently been devoted to them and was reported in the Swiss media as news about ‘our ancestors’ (Büchi 2009). The exhibit and the accompanying catalogue introduce the curious into the magical world of their symbolic uses in Swiss history (Kaeser 2009).

Like Gentest.ch/iGenea’s indigenous peoples, the lake dwellers – the history of the archaeological interpretation of whom actually shows a strong reliance on images of indigenous peoples from colonial settings (Kauz 2000) – are (re)enacted at the interface between past and present and science and public typical of a particular genre of the multimediated and commercially driven histotainment culture. While this kind of national and regional living history is currently booming in Switzerland, it is a far cry from a nationalist and racialist search for a ‘Swiss biology’.<sup>11</sup> Indeed, for some people, including myself and a journalist of the Swiss newspaper *Tages-Anzeiger*, the genetically attributed identity remains without any meaning and consequence at all:

So far, so good. But what does it mean for my future life? Does it help me cope with a possible midlife crisis? To whom do I have to feel connected, the Syrians or the Israelis? And on whose side should I stand in the Turkish-Kurdish conflict, according to my genes? Such questions are of course nonsensical. Their meaninglessness indicates of how little actual use DNA-ancestry tracing is to the individual. It does not constitute any reason for changing of one’s life. (Zedi 2009, translation mine)

If taken too seriously, if applied to real personal problems rather than the shaping of avatars, if linked to the complexity of history rather than the simplicity of myth, if connected to questions of war rather than sports, the DNA game does not work.

Accordingly, the iGenea genetic tests are regarded as funny Christmas and birthday presents, as yet another cyberspace hype in the times of Facebook, where

the company advertises in the following ways: chat with your genetic cousins found through the company's databank, exchange information on your genealogy and expertise of human population genetics with your virtual friends and enhance your genetic data with living history. In other words, the findings so far support assessments of the new genetics more generally along the lines of those of Nikolas Rose. Rather than a genetic naturalization of individual and collective essences, we find a personalized, flexible identity politics at work. Genetic identity and history here are not destiny – if anything, they are commodity and project (on genetic genealogy, see Rose 2007: 176–79; see also Rose and Rabinow 2006). This is also in agreement with the self-image of Gentest.ch, which regards iGenea as services to a lifestyle society in which the younger generations are no longer willing to spend time in libraries, not to mention archives. The line provides ready-made products that address the living history boom – a customized exciting past spiced up by means of DNA technology. The company explains its success on the basis of a hunger for individual roots and history which, although an anthropological universal, is aggravated in 'a world of nearly unlimited interconnectedness of persons, of globalization, of cosmopolitans' (Apter 2008, translation mine).

Despite the lightheartedness with which the tests are commonly greeted, a few voices in the Swiss media have been more critical. These have even induced a member of the Swiss Council of States, Luc Recordon of the Green Party, to submit an interpellation to the federal executive ('Verwendung von DNA-Tests für rassistische Zwecke'/'Usage of DNA Tests for Racist Aims', 3 March 2008). Recordon was particularly alarmed by the iGenea service for the genetic determination of Jewish ancestry. He challenged the scientific basis of the test, but especially pointed to the danger of empowering a meaningless racial term to the degree that people would be judged on its basis. However, the Swiss Federal Council did not feel alarmed. It did not want to prohibit genealogy tests and argued that ancestry determination by DNA is subject to existing legislation on the genetic analysis of humans in general. These regulations protect against any kind of discrimination on the basis of genotypes.<sup>12</sup>

Recordon's concerns regarding the Jewish ancestry test seem to represent a minority opinion. In Switzerland, the only really negative reaction came from the low-quality daily *20 Minuten* (its name, *20 Minutes*, is a fair indicator of its civic value). On its pages, the iGenea DNA analysis was referred to as *Judentest* and Johanne Gurfinkiel, general secretary of the Intercommunity coordination against anti-Semitism and defamation (CICAD), compared it to the practices of the *Ariernachweise* in National Socialist Germany (Melillo 2008). As soon as this news appeared on the online forum SideEffects, Gentest.ch intervened and claimed that the Jewish community was not alarmed. It is true that Gentest.ch had no negative publicity in the Jewish media such as *Tachles* and *Hagalil*; it might not be unimportant that one of the company's founders is Ashkenazi.<sup>13</sup>

The issue over the iGenea tests for Jewish ancestry already arose after a media report on the statistical contribution of different 'indigenous peoples' to the current German population provided by Gentest.ch. It first appeared in *Bild am Sonntag* and was widely taken up from there. The main topic of the *Bild* article was made obvious

in its title: *‘Deutsche Frauen sind deutscher als deutsche Männer’* (‘German Women are More German than German Men’). The fact that this reads like a tautology is because there is no differentiation between the diverse uses of ‘German’. In one case the term refers to current citizenship and in the other case to a genetic profile that has been associated with Germanic tribes. The ways in which the two meanings are used suggest that there is a true essence of ‘Germanness’ that rests on a biohistorical connectedness to a particular ancient people who inhabited the territory of today’s Germany. However unconsciously or naïvely, notions of purity and otherness are here transported. Despite the fact that the ten per cent of Jewish ancestry found in the ‘German samples’ was interpreted as illustrating the entangled histories, one could easily interpret the article as saying that anyone who has German citizenship, but whose ancestry cannot be traced back to Germanic tribes, is not a real German. Here is a remark of an iGenea produced ‘Germanic-descendant’: ‘I have received my result a few days ago. I would have been pleased by any result, Celt or Viking or whatever. But to have Germanic roots and thus to feel like an original inhabitant [*Ureinwohnerin*] is also appealing.’<sup>14</sup>

This problem lies at the heart of genetic ancestry tracing, the discourses surrounding which tend to emphasize the genetic insights into the diversity of today’s nations/ethnicities and the complex genetic ancestries of living individuals, while there are also always instances where this ‘old news’ is simultaneously being subverted, even if only to produce a catchy media title. If one of the now genetically profiled ‘indigenous peoples’ who is shown to be part of the genetic makeup of a nation has historically been more closely associated with that nation’s identity than others, the carriers of that profile might come to be seen as particularly representative of that nation. Furthermore, by only including in such studies DNA samples of people who give the country under concern as their place of origin, the percentages arrived at do not represent the actual current population of, let us say, Germany, but a utopian German nation cleared from more recent immigrations. Both points obviously also hold true for the statistics of the ‘indigenous peoples of Switzerland’ and the identification of the Helvetian Celts as the original Swiss people (for this problem in British genetic history and identity, see Sommer 2008a).

We therefore find replicated on a European scale what has been observed on a global scale. In the reconstruction of the history of humankind, human population genetics relies on indigenous peoples in the more common sense. Geneticists regard the gene pools of current societies whom they consider as historically isolated and little mixed, i.e., the aboriginal and insular peoples, and ethnic minorities, as more informative than those of industrialized and strongly admixed societies. A similar method is applied when in the attempt to arrive at the statistical composition of current European nations from antic peoples, biologists analyse those individuals they suspect of having a long pedigree in that country. However, when moving down the scale from a global to a European national, an interesting value reversal takes place. Cultural and social analysts have shown that the reconstruction of the family tree and history of all humankind goes along with a notion of the indigenous peoples, by means of whose DNA this knowledge is produced, as ‘fossilized’ – as if they

were relics from past advanced civilizations (Reardon 2005). This long-established disparity between the people whose history is being reconstructed and the people who are the sources of this reconstruction shows some correlation with the north-south distribution of power and wealth (Sleebom-Faulkner 2007). Conversely, my discussion of Gentest.ch/iGenea and my work on other countries suggest that in Britain (Sommer 2008a), Switzerland and Germany, and as we will see in other states as well, ‘indigenous’ is the thing to be. At the same time, in the last Gentest.ch/iGenea example I now turn to, it becomes obvious that this kind of ‘European (national) indigenousness’ can be associated with territorial and political claims not unlike those of native tribes/indigenous peoples/ethnic minorities elsewhere (see, for example, TallBear 2008 for the case of Native American tribes; for an overview, see Sommer 2010).

My last example concerns young people with links to the Balkan nations, who make up a large part of Gentest.ch/iGenea’s customers. Information about the genetics of these nations (percentage constitution of ‘antic/indigenous peoples’) and of such individuals created and provided by the company continues to provoke heated discussions on the respective iGenea-forums, so much so that entire threads have been closed. One particularly controversial piece of genetic information are the percentages of ‘antic/indigenous peoples’ of the (former Yugoslavian) Republic of Macedonia that Gentest.ch/iGenea put on the web platform. It indicates that today’s inhabitants of the Republic of Macedonia have the ancient Makedonians as their main genetic ancestors. This was interpreted by some discussants as establishing the right of the EU candidate to the name ‘Macedonia’, a right that is called into question by Greece, which regards itself as the heir of the Makedonian history and contains a region of that name. However, according to Gentest.ch/iGenea, the current Greek population has only five per cent of antic Makedonian ancestry. Customers of Greek origin with connections to the Republic of Macedonia directed many questions to iGenea in an attempt to have genetics on their side in the issue of ‘the real Macedonians’. In a similar way to the notion that today’s inhabitants of Zurich are the Ur-Swiss because of a supposedly higher percentage of Helvetian origin, or that those Germans with Germanic roots are somehow more German than others, the allegedly considerable Makedonian contribution to the present population of the Republic of Macedonia became the defining element. In other words, even though according to the rhetoric of Gentest.ch/iGenea, genetics proves that there are no pure nations or races, it is at times one particular Ur-folk (*Urvolk*) that becomes identified with a populace. In one instance even the iGenea spokesperson wrote: ‘Yes, a Macedonian can say that he [*sic*] is Makedonian originally ... Only a DNA-analysis can provide us with an absolutely certain answer.’<sup>15</sup>

Although in the quote identity is individualized, the assumption remains that one genetic line of descent determines who a person is, or even who he or she is entitled to claim to be. Therefore, it does not come as a surprise that the discussions on the forums escalated at times and included mutual accusations of racism (one customer even referred to the Swiss anti-racism legislation). Instead of demonstrating an awareness that the genetic information provided by the company was being

implicated in an ongoing identity-political controversy, the iGenea representative repeatedly warned the discussants (on this forum and elsewhere) not to engage in propaganda. Messages were/are censored on the grounds that iGenea, and genetics more generally, are apolitical! Exacerbated, one forum discussant pleads: ‘Dear IGENEA, the issue is very serious and I beg for your cooperation. Will it or not the matter IS political and is being used thus.’<sup>16</sup> Indeed, the news about the genetic statistics and even the statement of the iGenea spokesperson quoted above have travelled beyond the iGenea sites to Macedonian webpages, where they are used as arguments for the legitimacy of the state, its name and its position in Europe.<sup>17</sup>

Obviously, the politicization of the genetic information does not begin with its commercial application through Gentest.ch/iGenea, it starts with the scientific study. The various statistics on the genetic makeup of current nations provided by iGenea are averages derived from published scientific sources. Even though in the case of Macedonia, iGenea refers to studies that compared the genetics of present-day Macedonians from mountainous regions and Makedonian finds from antiquity on its website and forums, when asking for the sources of the Macedonian data, I was mainly referred to Arnaiz-Villena et al. (2001) (something that also happened to other costumers asking the same question). This is a study carried out by the Department of Immunology and Molecular Biology of the Universidad Complutense, Madrid, and of the Tissue Typing Laboratory, Institute of Blood Transfusion, Skopje, Republic of Macedonia. They allegedly found that Macedonians belong to the older substratum of Mediterraneans (Iberians, North Africans, Italians, French, Cretans, Jews, Lebanese, Turks, Armenians and Iranians) and are not related to the geographically close Greeks, who, on the contrary, do not belong to this old stratum but show genetic affinity to Ethiopians (sub-Saharan Africans). The scientists concluded that:

[t]his supports the theory that Macedonians are one of the most ancient peoples existing in the Balkan peninsula, probably long before arrival of the Mycaenian Greeks (10) about 2000 B.C. ... Thus, it is hypothesized that there could have been a migration from southern Sahara which mixed with ancient Greeks to give rise to a part of the present day Greek genetic background ... Indeed, ancient Greeks believed that their religion and culture came from Egypt. (ibid 2001: 125–26)

While this study belongs to the common sort that tries to prove that one Southeastern European country is more ‘European than another’ rather than constituting the source for the iGenea-statistics, it has incited further mutual insults on the forums. Some read it to say that ‘Greeks are Africans and Macedonians Europeans’. It is significant that the historical scholarship the arguments draw on consists of encyclopaedias and compendia of languages and peoples as well as Penguin historical atlases.<sup>18</sup>

Despite all this, Gentest.ch/iGenea continues to distance itself from actual cultural and political contexts. But while the fact that iGenea sells a genetic kind of history may be of little impact for a customer such as Blumenthal, i.e., Mr Switzerland, the specific authority of a genetic definition can become a central factor in the

assigning of a historically founded identity to oneself and/or others. This is certainly true for the (young) Southeastern European nations where history is more politicized (Schörken 1995: 107). Of course, Swiss national identity is not unproblematic either. On the contrary, we have been experiencing a controversy about what it means to be Swiss, particularly with regard to the politics of naturalization, immigration and asylum, that among other things revolved around offensive placard campaigns by the Swiss People's Party (SVP) – the party with the majority of seats in Parliament – beginning in the 1990s. The party used visual symbols such as skin colours and the Swiss passport to fuel anxieties about what they present as foreign infiltration and its consequences. More recently, the party has focused on animal symbolism. There were campaigns showing rats, a lion, a bear and lately black-and-white sheep and crows. The 2008 'sheep' campaign called for foreigners who have repeatedly been convicted of violent crimes to be deported after serving their sentences – hence the white sheep kicking the black sheep from the Swiss flag. The sheep motive has been taken up by far-right parties in other European countries, while the campaign has provoked shocked reactions in the national as well as international press, and the UN (United Nations Organization) correspondent for racism demanded the withdrawal of the campaign at the UN Human Rights Council (see, for example, Brauchbar 2007; Sciolino 2007; Vonplon 2008).

The 2009 'crow' campaign was directed against the ratification of the expansion of the freedom of movement and residence to the new EU members Romania and Bulgaria. It showed vicious crows picking at the territory of Switzerland rendered in the colours of the flag. Not surprisingly, it offended Bulgarians and Romanians, and prompted people from these countries living in Switzerland to send a letter of protest to the government. Such bad taste has lately fallen on fertile ground when the SVP initiative for a ban on mosque building has been accepted by the Swiss voters. Again, a visual hate campaign was part of the strategy, with minarets piercing the Swiss flag. To return to *Gentest.ch/iGenea*, even though, in contrast to Eastern European countries, individual and national 'Swiss identity' is not such an issue on the *iGenea* forums, the national statistics about genetic ancestry and the individual genetic tests relate to this political culture. In a political climate where crows come to symbolize immigrants living on and at the same time destroying the Swiss flag and territory – which in turn stands for 'Swiss values' and the socio-economic environment the 'real Swiss' have laboured for – the notions conveyed by some of the media coverage about *Gentest.ch/iGenea* and by the company itself cannot be entirely innocent.<sup>19</sup>

Everything is therefore not innocent play and many scholars interpret the situation less optimistically than Rose where the more general picture of the new genetics is concerned (see Squier 2007 for the critique of downplaying power relations structured along the lines of race, class and gender). Not only do they point to the uneven power relations between scientists and subjects of scientific research often at work in human population genetics, and to the fact that the different social positions tend to correlate with global north and south, they also see a (re)biologization of individual and collective identities at work. The scientific search for genetic profiles of populations is understood as a return to, or a modification of, an



earlier – intermittently discredited – notion of human groups as biologically defined races (Ellison et al. 2008; Reardon 2008; for a general discussion of these issues, see Sommer 2010); one would obviously have to add to this nations, ethnicities, tribes, peoples, etc. That understandings of identity and kinship may in certain cases become more rigid through the introduction of genetics seems further corroborated by the so-called surname projects that are offered by many genetic ancestry-tracing companies:

In a surname project men with the same or similar surnames are tested for biological kinship. In the course of time or migration, surnames may change considerably, so that common descent is no longer visible: for example, Howery and Hauri [a typical Swiss surname] ... Vice versa, you can exclude persons with the same surname as not being part of your family.<sup>20</sup>

‘Family’ is here reduced to genetic markers linking male lines of descent. In this understanding of kinship, an exact match is fantasized between the social and the biological, achieved through a trimming of the (male part of the) family tree by means of DNA tests (see also Nash 2006).

### **Concluding Thoughts: What is New about Applied (Swiss) History after DNA?**

Peter Weingart (2001) among others has described how the interconnections between scientific research, mass media and consumer groups have become increasingly more complex, with the ties to industries and politics being intensified. These fundamental institutional and epistemic transformations have been subsumed under ‘the scientification of society’ and ‘the socialization of science’ (or ‘the scientizing of politics, economics and the media’ and ‘the politicizing, economizing and medializing of science’). While from the Renaissance onwards, patronage connected science with public concerns, throughout the nineteenth and twentieth centuries, state support of and control over the sciences vastly expanded. Conversely, political decisions have increasingly become informed by scientific expertise. This is especially the case for post-Second World War big science, for which an intertwining of basic research, located at universities, and applied research, driven by industry, has also been observed. These interdependencies have tightened the link between scientific innovations and contexts of social application (Weingart 2005; similar shifts have been identified as a change from Mode 1 to Mode 2 science by Gibbons et al. 1994).

Such trends can certainly be made out for human population genetics that is inherently entwined with questions of group and individual identity politics and has become commercialized in genetic ancestry tracing. And as the science is ‘socialized’, identity politics and identity markets are ‘scientized’. In popular self-representations and advertisement, human population genetics tends to foreground the search for truth by means of hard, scientific methods. A notion of mechanical objectivity is betrayed by the emphasis on quantitative, technology-driven knowledge generation and on (‘junk’) DNA as the fundamental epistemic object (on the concept of mechanical objectivity, see Daston 2001; Daston and Galison 2007). DNA

(often used interchangeably with the gene) is presented as the most authentic and informative historical document. In contrast to written documents, it is not mediated by the human mind. In this perception, the history in the gene has been written into the body by nature itself. As the most fundamental level of the organism, the DNA is seen to be closest to the transmission of a purely evolutionary history – even more so if the DNA has no cellular function (Sommer 2008b).

On the iGenea website, the instruction for sampling one's DNA is accompanied by an explanation of the method of analysis and by images of the lab apparatus, and the 'team of experts' is explicitly referred to in order to underline the professional, technology-driven scientific process.<sup>21</sup> Furthermore, Gentest.ch assumes that the European customers want to be able to retrace the scientific knowledge informing the commercialized DNA tests (an assumption that is confirmed by customers' enquiries on the forum). To this end, a bibliography of articles published mainly in the *American Journal for Human Genetics* is provided, on which the company draws for the genetic profiles of 'indigenous/antic peoples' and thus the genetic assignment of customers to one of these groups. The academic research with the highest quality control is therefore twice exploited: once in the DNA services and again in their marketing. Conversely, Gentest.ch estimates that the commercialization of this scientific knowledge from the public realm through institutions such as iGenea encourages further studies of the European genetic history and present, and the implementation of human population genetics within the European education system. Finally, the commercial sector is seen as offering novel career paths to geneticists.

Gentest.ch also makes use of the discourse of the gene as the most authoritative historical document: 'Techniques now available in the science of genetics enable us to re-examine these [historical] sources and test their veracity. Our genes contain information about our ancestors which, in contrast to that from the other sources, is error-free.'<sup>22</sup> In this understanding of historical genetics as 'molecular revisionism' (Palmié 2007: 208–10), the genetic approach may make it possible to verify or falsify a historical hypothesis, but genetic knowledge stands above and is independent from other expert areas: 'The result is absolutely reliable and correct and needs no interpretation from a historian or archivist' (Apter 2008, translation mine). The genetic approach is indeed perceived by some of its practitioners as a scientization of history and anthropology.

Such claims of truth and superiority can be questioned in many respects. In the case of the iGenea services, it is essential to keep in mind that the determination of the so-called indigenous peoples or *Urvölker* is problematic. Besides the fact that they may not have understood themselves in these terms historically and that the linkage between past peoples and cultures is often controversial within archaeology and history, a genetic profile can only be determined following the archaeological or anthropological definition. In other words, despite the claim that for the iGenea services, *Urvölker* are understood as genetic rather than historical-anthropological identities, there is a certain circularity involved. A genetic profile of an Ur-folk is arrived at by the analysis of ancient DNA from finds that have been archaeologically determined (or of living people supposed to represent the ancient group because of

their relative isolation, language and other cultural parameters). However, once a genetic profile exists, it is seen as more fundamental than other kinds of information, so that a genetic analysis can from then on verify or falsify the archaeological determination of a grave as Celtic, for example.

The novelty in the ways in which science, politics and economy intersect is also linked to tendencies of globalization driven by communication and information technologies (see, for example, Thacker 2005). As we have seen, it is not sufficient to see Gentest.ch/iGenea as a Swiss company. The iGenea services are tailored to European customers, addressing people's interest in their country of origin more than in their country of present citizenship or residence. Furthermore, as a small company, Gentest.ch does not have millions of Swiss francs at its disposal to carry out research. As discussed above, the solution lies in the analysis and evaluation of genetic knowledge on European 'indigenous tribes' or *Urvölker* produced elsewhere, knowledge that is easily accessible because it is in the public domain and globally distributed (through online and print journals). Finally, the services of iGenea are not only restricted to one country but are aimed at the 'European market'. Gentest.ch has also secured the cooperation of the American company Family Tree DNA. Through this cooperation, iGenea gains access to the largest DNA database for genetic genealogy.

Family Tree DNA represents the commercial part of the Genographic Project initiated in 2005. This forty-million-dollar project, which is supported by the National Geographic Society, IBM and the Waitt Family Foundation, is carried out at different universities globally on the basis of geographical foci. It aims at reconstructing the complete history of humankind on the basis of the analysis of the genetic variability between indigenous and isolated peoples worldwide. The commercial part – realized by Family Tree DNA – on the other hand advertises its genetic services to information societies, the members of which are called upon to participate in the Genographic Project by having their DNA analysed for money. As another commercial link, the Harvard Professor for African and African American Studies, Henry Louis Gates, Jr., has cofounded the company AfricanDNA.com with Family Tree DNA to specifically cater to African-American customers.<sup>23</sup> AfricanDNA.com, Family Tree DNA and Gentest.ch/iGenea are thus part of a global network, while their products are tailored to a specific cultural context and historical background. This glocalised structure is grouped, one might say, around the digital genetic databank and is connected by virtual paths through the internet. But there are also paths of wetware in this bioeconomic exchange, because the samples from iGenea customers are sent to Family Tree DNA to be analysed in the U.S.A. (Sommer 2010). This last observation may also point to an omission in Weingart's areas of traffic: legislation. In fact, there has been an investigation by the senior public prosecutor into Gentest.ch's practices with regard to the privacy of data. When the substance (cheek swabs) travels from Switzerland to the U.S.A., is it accompanied by personal data? Gentest.ch denies this. It claims that even while in America, the samples and the genetic data are treated according to the more prohibitive Swiss law, and the authorities are satisfied.<sup>24</sup>

I have pointed to the diverse settings of application in which Gentest.ch/iGenea, AfricanDNA.com and Family Tree DNA are active; as we have seen, even within the narrower context of customers from Switzerland and Germany, there are people who perceive the genetic analysis as a new tool for self-(re)fashioning, and there are those whose (national) histories are controversial and for whom the genetic determination of origins and history becomes a serious arbiter in identity politics. Let me be clear: Gentest.ch does not attempt to find a Swiss (or German, Macedonian, etc.) genetic marker. It is not in search of the genetic essence of the Swiss or any other nationality. There is no genetic lake dweller or *Homo alpinus* test (or not yet?) that would identify a customer as (originally) Swiss. Rather, Gentest.ch, like human population genetics in general, emphasizes that genetics undermines the notion that there are pure peoples, nations or ethnicities. These are all historically grown, hybrid and open-ended entities. Paradoxically, however, a DNA test result for personal ancestry will nonetheless link a customer to one (maternal and/or paternal) ancient people such as the Celts or the Germanic tribes without reservation. The certificate the customer receives for his or her money does not state his or her haplogroup, indigenous people and country of origin in terms of probability, nor is it stated that only one particular line has been established. Furthermore, the company provides statistics indicating the makeup of twenty-first-century nations in terms of tribes from antiquity that already come with a considerable baggage of living history and mythology. And some of these are more closely tied to national identity than others.

Knowledge gained in human population genetics may play a special role in identity politics because of its claim on truth. In this respect, genetic history often demands prerogative over anthropology, archaeology, history, oral history and personal historical consciousness, even if this authority is not granted, as in the case of iGenea customers of Greek ancestry who fight the genetic knowledge about their personal origins and about the Greek and Macedonian populations. At the same time, the historical narratives and images that are provided with the genetic data or that are collected by customers to make sense of their results come from nongenetic knowledge funds. They are borrowings rather than the products of the independent aesthetic means of genetics, although the newest historical scholarship is hardly the source. The geneticization of history and identity goes along with a mythologization – a kind of biohistory kitsch that draws on an existing tradition of applied history (*Gebrauchsgeschichte*): we already have our myth about the Helvetians and the Celts more generally, and about the Vikings and other Germanic tribes.

## Notes

1. Although the question is still on the website, it has become less prominent and has partly been modified to ‘Do you have Celtic, Teuton, Inka or Jewish ancestry?’ (for the main sites, see <http://www.gentest.ch>, <http://www.igenea.ch> and <http://www.igenea.com>, date accessed 3 March 2011; the original question can still be found at <https://www.igenea.com/index.php?c=21&lp=16>, date accessed 3 March 2011). This article is an elaboration of the shorter German text Sommer 2010b.

2. My analysis of iGenea is informed by an open interview with the then managing director of the iGenea product line carried out on 10 October 2008, the analysis of the ways in which the company represents itself and is represented by others in the media, as well as by cyberethnography (analysis of blogs, chatrooms, forums, news commentaries, etc.). In order to have access to the online databank and the biosocialities forming on its basis, I have also become a customer of iGenea (including email exchanges in the analysis).
3. The designation 'indigenous people' has initially been primarily used, but has been replaced – if again not consistently – by 'antic people'.
4. <http://www.igenea.ch/index.php?content=49a&cid=30>, date accessed 3 March 2011.
5. <http://www.igenea.ch/index.php?content=49a&cid=30>, date accessed 3 March 2011.
6. *Einstein*, 2008, SF 1, 1 May, 9 p.m. The documentary can be downloaded from <http://www.sf.tv/sf1/einstein/sendung.php?docid=20080501>, retrieved 3 March 2011.
7. Tuesday 29 April. Retrieved 3 March 2011 from <http://www.igenea.ch/index.php?c=61&lp=48>, translation mine.
8. <http://www.igenea.ch/index.php?c=04>, date accessed 3 March 2011.
9. iGenea-Forum 'Vikings', posted 17 June 2008, <http://www.igenea.ch/index.php?content=132&st=147>, date accessed 3 March 2011, translation mine.
10. 'Leben wie in der Steinzeit'/'Life in the Stone Age' 2007, SF 1, July/August 2007. See <http://www.sf.tv/suche.php?&q=pfahlbauer&filter=1&start=10>, retrieved 3 March 2011.
11. See also [http://www.pfahlbauervonpfyn.tg.ch/xml\\_102/internet/de/intro.cfm](http://www.pfahlbauervonpfyn.tg.ch/xml_102/internet/de/intro.cfm), date accessed 3 March 2011. The big-brother genre in particular has gained popularity as a means of experiencing the Swiss past. Besides the lake dwellers, Swiss public television has choreographed a (re)enactment of life in the times of the Swiss author Jeremias Gotthelf and during the Second World War in a Swiss alpine bunker (Engelhard and Lichtensteiger 2009).
12. See [http://www.parlament.ch/d/suche/seiten/geschaefte.aspx?gesch\\_id=20083641](http://www.parlament.ch/d/suche/seiten/geschaefte.aspx?gesch_id=20083641), date accessed 3 March 2011; Gut 2009.
13. See Apter 2008; the advert about iGenea, 'Herkunftsanalyse mittels DNA', on haGalil.com has not attracted any comments; see <http://www.igenea.com/docs/hagalil/hagalil.htm>, date accessed 3 March 2011; see also 'Deutsche Gene entschlüsselt. Eine Studie von Zürcher Gen-Analytikern zeigt: Jeder zehnte Deutsche hat jüdische Vorfahren', *Die Gemeinde* 613, offizielles Organ der israelitischen Kultusgemeinde Wien, January 2008. According to Gentest.ch, the test for Jewish ancestry was introduced after several customers had enquired about it.
14. <http://209.85.135.132/search?q=cache:VqJpuAP4We0J:dev.igenea.com/index>. The study carried out by Gentest.ch/iGenea shows that the DNA samples of women who self-identified as being of German origin can more often be connected to Germanic tribes than those of men (fifty per cent versus six per cent; unpublished study based on 19,457 German samples from the iGenea database). The statistics on the constitution of the German population published in the same article indicates that ten per cent of Germans are of Jewish ancestry. In the *Bild* report, Salomon Korn, Vice-President of the German Central Council of Jews, explains the great contribution of haplogroup J, to which it is estimated that forty per cent of today's Jews belong, to 1,700 years of Jewish presence in 'Germany' (Böger 2007; see also Mischke 2008). Online commentaries about this article show the ability of people to see the nonsense in the claim about 'German men and women'. They also document indignation about the 'Jewish genetics' and the fear of a resurgence of race theory, the biologization of ethnicity or the stigmatization of the Jews (see, for example, [http://www.igenea.com/docs/welt\\_1107.html](http://www.igenea.com/docs/welt_1107.html), date accessed 3 March 2011; <http://altesitte.wordpress.com/2007/11/27/nur-wenige-deutsche-sind-echte-germanen>,

- date accessed 3 March 2011). This is not the place to do justice to the very complex and diverse issues surrounding the population genetic research on the Jewish diaspora and its commercialization. The reader is referred to Kahn 2005; Olson 2002: 106–19; Parfitt and Egorova (2006); and Abu El-Haj (unpublished manuscript).
15. 'Ex-Jugoslawien/Mazedonien/Serbien/Kroatien/Albanien/Montenegro/Bosnien' online forum, posted 15 February 2008, retrieved 3 March 2011 from <http://www.igenea.ch/index.php?content=132&st=25>, translation mine.
  16. 'Macedonia' online forum, posted 27 October 2008, retrieved 3 March 2011 from <http://www.igenea.ch/index.php?content=132&st=273>.
  17. See, for example, 'Gentests bestätigen Verwandtschaft zu antiken Makedonen', News from Macedonia, <http://www.pelagon.de/?p=306>; <http://www.canka.de/links/links.html>; Fussballverein Makedonien, <http://www.fvmakedonien.com/fvm/?p=95>; <http://www.readers-edition.de/2009/04/13/wie-griechisch-waren-die-antiken-makedonen>, all accessed 3 March 2011. For a counter-reaction, see, for example, the film on YouTube, <http://www.youtube.com/watch?v=oHn7M3BAD44>, date accessed 3 March 2011. iGenea is also a topic and guest on the Balkan and Mazedonian forum, <http://www.balkanforum.info/f45/bosnier-illyrer-32489>, <http://www.mazedonien-forum.de/thema.php?id=72194>, all accessed 3 March 2011 (for more information, google 'iGenea Mazedonien' or similar combinations).
  18. The study is based on the Human Leukocyte Antigens (HLA) system (histocompatibility). The Macedonian samples numbered 172.
  19. For an interview with the Swiss Federal President touching on the 'sheep issue', see <http://www.eda.admin.ch/eda/de/home/dfa/head/iviews/interv/interv15.html>; for more media coverage, see, for example, <http://www.20min.ch/print/story/11309737>, [http://www.nzz.ch/nachrichten/schweiz/aktuell/uno-rassismus-berichterstatter\\_fordert\\_rueckzug\\_von\\_svp-plakat\\_1.555199.html](http://www.nzz.ch/nachrichten/schweiz/aktuell/uno-rassismus-berichterstatter_fordert_rueckzug_von_svp-plakat_1.555199.html), [http://www.rhetorik.ch/Aktuell/07/07\\_16/index.html](http://www.rhetorik.ch/Aktuell/07/07_16/index.html); for a blog on the placard-campaigns, see <http://plakat.svp-politik.ch>, all accessed 3 March 2011.
  20. <http://www.igenea.ch/index.php?c=13&lp=69>, date accessed 3 March 2011.
  21. <http://www.igenea.ch/index.php?c=903&lp=21>, <http://www.igenea.ch/index.php?c=12&lp=2>, date accessed 3 March 2011.
  22. <http://www.igenea.ch/index.php?c=48>, date accessed 3 March 2011.
  23. <http://www.africandna.com/history.aspx>, date accessed 3 March 2011.
  24. Other issues are involved here. For example, according to Swiss legislation regarding genetic analyses of humans, samples have to be taken by physicians and the identity of the person sampled has to be verified. iGenea customers take their samples themselves in the privacy of their own homes. But Gentest.ch has mainly been accused of not rendering the genetic samples and data anonymous and handing both on to the U.S. company without consent of the customer, where it enters the Family Tree databank, again without the consent of the customer. This would be a breach of the privacy of data protection. Gentest.ch has reacted by having customers send their data directly to Houston. (Hostetter 2009, 2009b, 2010).

## Bibliography

- Abu El-Haj, N. "A Tool to Recover Past Histories". Genealogy and Identity after the Genome', unpublished manuscript.
- Apter, J. 2008. 'Dank DNA-Test genetische Cousins finden', interviewed by Dania Zafran, *tachles Jüdisches Wochenmagazin* 8(9), 29 February. Retrieved 3 March 2011 from [http://www.tachles.ch/Nachricht.227.0.html?&tx\\_ttnews\[swords\]=igenea&tx\\_ttnews\[issue\\_id\]=437&tx\\_ttnews\[tt\\_news\]=4209&tx\\_ttnews\[backPid\]=226&cHash=e9ea2fef20](http://www.tachles.ch/Nachricht.227.0.html?&tx_ttnews[swords]=igenea&tx_ttnews[issue_id]=437&tx_ttnews[tt_news]=4209&tx_ttnews[backPid]=226&cHash=e9ea2fef20).

- Arnaiz-Villena, A. et al. 2001. 'HLA Genes in Macedonians and the Sub-Saharan Origin of the Greek', *Tissue Antigens* 57(2): 118–27.
- Bieler, C. 2007. 'Wir alle sind mal eingewandert', *Migros-Magazin* 31: 6–9.
- Böger, H. 2007. 'Deutsche Frauen sind deutscher als deutsche Männer', *Bild am Sonntag*, 24 November. Retrieved 3 March 2011 from <http://www.bild.de/BTO/news/2007/11/25/gen-analytiker/deutsche-frauen.html>.
- Brauchbar, D. 2007. 'SVP tappt in Schäfchen-Falle', *Blick*, 1 October. Retrieved 3 March 2011 from <http://www.blick.ch/news/schweiz/wahlen07/svp-veraepelt-sich-selbst-72618>.
- Büchi, C. 2009. 'Unsere Vorfahren, die Pfahlbauer', *Neue Zürcher Zeitung* 86, 15 April, B15.
- Chaoui, N.J. 2004. *Mit Messzirkel und Schrotflinte. Das primatologische Werk von Adolph Hans Schultz (1891–1976)*. Marburg: Basiliken-Presse.
- Daston, L. 2001. 'Die Kultur der wissenschaftlichen Objektivität', in M. Hagner (ed.), *Ansichten der Wissenschaftsgeschichte*. Frankfurt: S. Fischer, pp. 137–58.
- Daston, L. and P. Galison. 2007. *Objectivity*. New York: Zone Books.
- Duster, T. 2003 (1990). *Backdoor to Eugenics*, 2nd ed. New York: Routledge.
- Ellison, G.T.H. et al. 2008. 'An Interdisciplinary Perspective on the Impact of Genomics on the Meaning of "Race", and the Future Role of Racial Categories in Biomedical Research', *NTM Journal of History of Sciences, Technology, and Medicine* 16(3): 373–77.
- Engelhard, M. and K. Lichtensteiger. 2009. 'Drei Thurgauer in der Alpenfestung', *Thurgauer Zeitung*, 14 July, B19.
- Franklin, S. 2001. 'Biologization Revisited. Kinship Theory in the Context of the New Biologies', in S. Franklin and S. McKinnon (eds), *Relative Values – Reconfiguring Kinship Studies*. Durham, NC: Duke University Press, pp. 355–83.
- Gibbons, M. et al. 1994. *The New Production of Knowledge. The Dynamics of Science and Research in Contemporary Societies*. London: Sage.
- Gut, P. 2009. 'Meine phönizischen Vorfahren', *Weltwoche* 16. Retrieved 3 March 2011 from <http://www.weltwoche.ch/ausgaben/2009-16/artikel-2009-16-meine-phoenizischen-vorfahren.html>.
- Haraway, D. 1991. 'A Cyborg Manifesto. Science, Technology, and Socialist-Feminism in the Late Twentieth Century', in D. Haraway (ed.), *Simians, Cyborgs, and Women. The Reinvention of Nature*. New York: Routledge, pp. 149–81.
- 1992. 'The Promises of Monsters. A Regenerative Politics for Inappropriate/d Others', in L. Grossberg, C. Nelson and P. Treichler (eds), *Cultural Studies*. New York: Routledge, pp. 295–337.
- 1995. 'Universal Donors in a Vampire Culture. It's All in the Family. Biological Kinship Categories in the Twentieth-Century United States', in W. Cronon (ed.), *Uncommon Ground. Toward Reinventing Nature*. New York: W.W. Norton, pp. 321–66.
- Hesse, D. 2008. 'Mooring Lines into the Past', *Configurations of Knowledge, Berlin, 2–8 June 2008*. Berlin: Zentrum für Literaturwissenschaften, SLSA.
- Hostetter, O. 2009. 'Heikle Gendaten werden illegal weitergegeben', *Beobachter* 15(9), 22 July. Retrieved 3 March 2011 from [http://www.beobachter.ch/justiz-behoerde/artikel/gentest\\_heikle-gendaten-werden-illegal-weitergegeben](http://www.beobachter.ch/justiz-behoerde/artikel/gentest_heikle-gendaten-werden-illegal-weitergegeben).
- 2009b. 'Staatsanwaltschaft pfeift Fedpol zurück', *Beobachter* 18(9), 2 September. Retrieved 27 March 2011 from [http://www.beobachter.ch/justiz-behoerde/buerger-verwaltung/artikel/gentestch\\_staatsanwaltschaft-pfeift-fedpol-zurueck/](http://www.beobachter.ch/justiz-behoerde/buerger-verwaltung/artikel/gentestch_staatsanwaltschaft-pfeift-fedpol-zurueck/).
- 2010. 'Der Texas-Trick', *Beobachter* 4(10), 17 February. Retrieved 27 March 2011 from [http://www.beobachter.ch/justiz-behoerde/artikel/gentests\\_der-texas-trick/](http://www.beobachter.ch/justiz-behoerde/artikel/gentests_der-texas-trick/).
- Kaeser, M.-A. 2009. *Visions d'une civilization engloutie, Ansichten einer versunkenen Welt*. Hauterive and Zurich: Laténium/Schweizerisches Landesmuseum.

- Kahn, S.M. 2005. 'The Multiple Meanings of Jewish Genes', *Culture, Medicine and Psychiatry* 29(2): 179–92.
- Kauz, D. 2000. *Wilde und Pfahlbauer. Facetten der Analogisierung*. Zurich: Eidgenössische Technische Hochschule.
- Keller, E. 2006. 'Das Herauskrystallisieren der Rasse. Vom langsamen Verschwinden eines Phantoms am Anthropologischen Institut in Zürich', *Historische Anthropologie* 14(1): 49–67.
- Keller-Tarnuzzer, K. 1936. *Die Herkunft des Schweizervolkes*, Sonderabdruck aus der Thurgauer Zeitung. Frauenfeld.
- Kempe, M. 2003. *Wissenschaft, Theologie, Aufklärung. Johann Jakob Scheuchzer (1672–1733) und die Sintfluttheorie*. Epfendorf: bibliotheca academica.
- Kevles, D.J. 1997. 'From Eugenics to Genetic Manipulation', in J. Kriges and D. Pestre (eds), *Science in the Twentieth Century*. Amsterdam: Harwood Academic Press, pp. 301–18.
- Kreis, G. 1992. 'Der "homo alpinus helveticus". Zum Schweizerischen Rassendiskurs der 30er Jahre', in G. P. Marchal and A. Mattioli (eds), *Erfundene Schweiz. Konstruktionen nationaler Identität*. Zurich: Chronos, pp. 175–90.
- Marchal, G.P. 2006. *Schweizer Gebrauchsgeschichte. Geschichtsbilder, Mythenbildung und nationale Identität*. Basle: Schwabe.
- Melillo, G. 2008. 'Zürcher Firma bietet "Judentest" an', *20 Minuten*, 19 September. Retrieved 3 March 2011 from <http://www.20min.ch/news/schweiz/story/23696759>.
- Mischke, R. 2008. 'Suche nach Wurzeln', *Mannheimer Morgen*, 26 January. Retrieved 3 March 2011 from [http://www.igenea.com/docs/mannheimer\\_morgen.htm](http://www.igenea.com/docs/mannheimer_morgen.htm).
- Nash, C. 2006. 'Irish Origins, Celtic Origins. Population Genetics, Cultural Politics', *Irish Studies Review* 14(1): 11–37.
- Olson, S. 2002. *Mapping Human History. Genes, Race, and Our Common Origins*. Boston: Houghton Mifflin.
- Palmié, S. 2007. 'Genomics, Dinivation, and "Racecraft"', *American Ethnologist* 34(2): 205–22.
- Parfitt, T. and Y. Egorova. 2006. *Genetics, Mass Media, and Identity. A Case Study of the Genetic Research on the Lemba and Bene Israel*. London: Routledge.
- Rabinow, P. 1996 (1992). 'Artificiality and Enlightenment. From Sociobiology to Biosociality', in P. Rabinow (ed.), *Essays on the Anthropology of Reason*. Princeton, NJ: Princeton University Press, pp. 91–111.
- Rafi, R. 2008. 'Genstudie. Holland wird Europameister', *20 Minuten*, 18 June. Retrieved 3 March 2011 from <http://www.igenea.com/docs/20minEM08.htm>.
- Reardon, J. 2005. *Race to the Finish. Identity and Governance in an Age of Genomics*. Princeton, NJ: Princeton University Press.
- 2008. 'Race and Biology. Beyond the Perpetual Return of Crisis', *NTM Journal of History of Sciences, Technology, and Medicine* 16: 378–86.
- Rheinberger, H.-J. 1997. *Toward a History of Epistemic Things. Synthesizing Proteins in the Test Tube*. Stanford, CA: Stanford University Press.
- Rose, N. 2007. *The Politics of Life Itself. Biomedicine, Power, and Subjectivity in the Twenty-First Century*. Princeton, NJ: Princeton University Press.
- Rose, N. and P. Rabinow. 2006. 'Biopower Today', *BioSocieties* 1(1): 95–217.
- Rütimeyer, L. and W. His 1864. *Crania Helvetica – Sammlung schweizerischer Schädelformen*. Basle: H. Georg's Verlagsbuchhandlung.
- Scheuchzer, J.J. 1746. *Natur-Geschichte des Schweizerlandes*, J.G. Sulzern (ed.). Zurich: David Gessner.
- Schlaginhaufen, O. 1946 and 1959. *Anthropologia Helvetica. Ergebnisse anthropologischer Untersuchungen an den schweizerischen Stellungspflichtigen*, 4 vols. Zurich: Füssli.



- Schmutz, H.-K. 2006. 'Vermessene Nation. Eine Skizze der Imagologischen Anthropologie nach 1860', in D. Preuß, U. Hoßfeld and O. Breidbach (eds), *Anthropologie nach Haeckel*. Stuttgart: Franz Steiner, pp. 184–94.
- Schörken, R. 1995. *Begegnungen mit Geschichte. Vom ausserwissenschaftlichen Umgang mit der Historie in Literatur und Medien*. Stuttgart: Klett-Cotta.
- Sciolino, E. 2007. 'Immigration, Black Sheep and Swiss Rage', *New York Times*, 8 October. Retrieved 3 March 2011 from [http://www.nytimes.com/2007/10/08/world/europe/08swiss.html?pagewanted=1&\\_r=1](http://www.nytimes.com/2007/10/08/world/europe/08swiss.html?pagewanted=1&_r=1).
- Sleeboom-Faulkner, M. 2007. 'Sampling Policies of Isolates of Historical Interest. The Social and Historical Formation of Research Populations in the People's Republic of China and the Republic of China', in P. Atkinson, P. Glasner and H. Greenslade (eds), *New Genetics, New Identities*. London: Routledge, pp. 155–67.
- Sommer, M. 2008a. 'Angewandte Geschichte auf genetischer Grundlage', in D. Darwin et al. (eds), *Nach Feierabend. Zürcher Jahrbuch für Wissenschaftsgeschichte* 4. Zurich: Diaphanes, pp. 129–48.
- 2008b. 'History in the Gene. Negotiations between Molecular and Organismal Anthropology', *Journal for the History of Biology* 41(3): 473–528.
- 2010. 'DNA and Cultures of Remembrance: Anthropological Genetics, Biohistories, and Biosocialities,' *BioSocieties* 5(3): 366–390.
- 2010b. "'Wer sind Sie wirklich?' – Identität und Geschichte in der Gensequenz.' *L'Homme* 21(2): 51–70.
- forthcoming. "'It is a Living History, Told by the Real Survivors of the Times: The DNA" – Anthropological Genetics in the Tradition of Biology as Applied History', in K. Wailoo et al. (eds), *Genetics and the Unsettled Past. DNA, Race, and History*. New Brunswick, NJ: Rutgers University Press.
- Squier, S.M. 2007. 'Our Bodies, Our Selves', *American Scientist* 95(4): 370. Retrieved 3 March 2011 from <http://www.americanscientist.org/bookshelf/pub/our-bodies-our-selves>.
- TallBear, K. 2008. 'Native-American-DNA.com. In Search of Native American Race and Tribe', in B. Koenig, S. Soon-Jin Lee and S. Richardson (eds), *Revisiting Race in a Genomic Age*. New Brunswick, N.J.: Rutgers University Press, pp. 235–52.
- Thacker, E. 2005. *The Global Genome. Biotechnology, Politics, and Culture*. Cambridge, MA.: MIT Press.
- Vonplon, D. 2008. 'Das SVP-Schaf reist um die Welt', *Tages-Anzeiger*, 13 August. Retrieved 3 March 2011 from <http://www.tagesanzeiger.ch/schweiz/Das-SVPSchaf-reist-um-die-Welt/story/24832616>.
- Weingart, P. 2001. *Die Stunde der Wahrheit? Zum Verhältnis der Wissenschaft zu Politik, Wirtschaft und Medien in der Wissensgesellschaft*. Weilerswist: Velbrück Wissenschaft.
- 2005. *Die Wissenschaft der Öffentlichkeit. Essays zum Verhältnis von Wissenschaft, Medien und Öffentlichkeit*. Weilerswist: Velbrück Wissenschaft.
- Welti, P. 2008. 'Muss ich an der EM für Schweden sein?', *Der Sonntag* 23, 5 June, B20–22.
- Zedi, R. 2009. 'Für 300 Franken auf den Spuren der eigenen Vorfahren', *Tages-Anzeiger*, 30 June. Retrieved 3 March 2011 from <http://www.tagesanzeiger.ch/leben/gesellschaft/Fuer-300-Franken-auf-den-Spuren-der-eigenen-Vorfahren/story/28960496>.