6.8. Reproduction and Production: Sex and Gender in Rural Economies

Panel organise: Bäch, Beat, Archives of Rural History, Bern, Switzerland

Bredding, herdity, and (re)production are key concepts and practices in-between economy and the life sciences. Hence, animal and plant breeding are crucial for the history of “biotechnologies”. Whereas reproduction has become separated from production in industrial life, it is hard to imagine animal and plant production without reproduction in rural economies. There is still no milk without calves (regardless of their fate). Hence there were a lot of attempts to bring the logics of life in line with industrial ways of production. The utopia of industrial farming since the middle of the 19th century is to produce standardised organisms and reproductive substances that are liberated from the restrictions of season cycles. Practices and discourses in agricultural, industrial, political, and scientific communities are tightly connected. Not only disputes regarding the origins of female and male behaviour and sexuality circulated between different spheres, but also the development of animal, plant, and human reproductive technologies intermingled in many ways. A closer look into the history of animal and plant reproduction to light changing economies of attention relating to the female and the male part in (re)production. In cattle breeding, the technology of artificial insemination was more concerned with sires, today embryo transfer has directed more attention towards cows. The sex ratio is another crucial point in animal production. In the field of poultry farming, the sex ratio fundamentally differs from the ones in the production of other animals. Furthermore, chickens’ shorter reproduction cycle facilitated their industrialisation. Also regarding work organisation chicken belonged to another sphere than cows, they often used to be a women’s domain until the industrialisation of poultry farming progressed. Crucial questions in the panel will be: Who owned, marketed, and commodified organisms and reproductive substances? What attempts were there to separate production from reproduction in rural economies? What role did sex and gender play in these processes of disentanglement? Or to put it bluntly: Does it make sense, beside talking of animal’s and plant’s agency, to analyse animal and plant production in the frame of gender studies? Especially welcome are contributions taking as starting point archival sources and analysing them from a gender perspective.

Chair: Joris, Elisabeth, Independent scholar, Switzerland

6.8.1. A women’s domain? Sex and gender in poultry breeding

Heitholt, Ulrike, University of Bielefeld, Germany

The issue of gender is of existential importance in contemporary commercial poultry breeding: The sex of the animals decides over life and death. Modern chickens are highly specialized to serve either for laying eggs or for providing meat. The male brothers of the laying hens, for example, are killed shortly after hatching as raising them as broilers is economically uneconomical. A precondition for this sexual standardisation was the method to determine the animal’s sex early on. The introduction of this method was a milestone in economic poultry breeding and eventually contributed to the commercial success since the 1960s. From a historical perspective, another dimension of gender in poultry breeding becomes the focus of interest: the gender of the breeders. In the early 19th century, the sex of the animals was not as decisive as it is today. The chickens of one breed took care of both: hens laid eggs and roosters provided meat. Not enough, however, to be economically attractive for the farmers. Poultry was considered economically unviable, it served mainly as self-supply and was the domain of women on farms. What this meant for the poultry and what consequences this had on the development of commercial breeding is the focus of this contribution. First of all, the assignment of poultry to the sphere of women’s work points to a low appreciation: it was not taken seriously as an economic good. Thus, the initiatives for enhancing poultry breeding did not originate in agriculture but from the citizens, merchants, entrepreneurs and the nobility.

6.8.2. From Numan to Texel: A century of science in Dutch sheep breeding

Oldenburg, Jesper, University of Utrecht, Netherlands

During the nineteenth century, the selective breeding of sheep in the Netherlands, especially when compared with neighboring countries, left a rather shabby and incertain start. Early attempts to improve the Dutch indigenous hards with the famous Spanish Merino sheep all failed miserably and the Netherlands were miles away from being considered internationally important. The Dutch Professor Alexander Numan (1780-1852) started, partly in response to these failed attempts, partly as a direct result of the policy of the Dutch King William I and partly from a personal moral conviction, with a large-scale experiment to determine exactly how the indigenous sheep could and should be improved. Numan’s comparative approach, his thorough knowledge of the international literature and the fact that Numan during this time produced the Vereelden Schaapsert (The Selective Breeding of Sheep), a book which remained popular well into the early 20th century, make that these experiments are the start of a more scientific approach to the breeding of sheep. Furthermore, due to Numan’s preference for the international highly successful English breeds, these experiments also mark the beginning of a century of English influence on the Dutch sheep breed. This will eventually accumulate in the creation of the Verbeterde Texelaar (The Improved Texel) around 1912, which would become, and still is, an international breed. Within this context, I will, in line with the focus of this panel, pay particular attention to the changing ideas on the sex-based heredity of certain characteristics.

6.8.3. The Organization of Pig Breeding: from women’s towards men’s business

van der Laan, Steven, University of Utrecht, Netherlands

Until about 1850, no serious attempts were made to improve the Dutch pig breed. After 1850 things changed when wealthy landowners started to import foreign breeds, most notably English ones, to “ennoble” the Dutch native race. Instead of consistently improving the Dutch pigs, though, most pig farmers enjoyed the short-term gains from the hybrid vigor obtained by crossing the foreign breeds with the native race. In the early 1860s, farmers started to notice that the Dutch native pig had disappeared and was replaced by a mishmash of different crosses. Yet, due to the agricultural crisis, pig farming was booming and large commercial slaughterhouses were created, which led farmers to sell their pigs for standardized prizes, without regard towards the quality of their breeds. The Dutch Ministry of Agriculture decreed that these slaughterhouses were the first to take action by distributing purebreed boars. This measure was called Numan’s Experiment. The farmers were happy to take the pigs, paid for them and the recently established pig breeding associations, like the Dutch Pig Breeders Union, had to deal with increased membership and demand. However, the Dutch pig farming remained very fragmented and the farmers were hard to convince to follow the Ministry’s guidelines. In the 1870s, the Dutch farmers were so satisfied with this experiment that the Ministry of Agriculture changed their mind and started to promote the experiments. Instead of cooperating with the farmers, the farmers started to cooperate with each other, by setting up pig breeding associations and by disseminating the benefits of this experiment to the provinces of the Netherlands. Furthermore, they began paying more for pigs that yielded higher quality pork and threatened to cease their operations in regions in which farmers notoriously delivered inferior quality. This stimulated farmers enough to also take action. 1900 can be marked, more or less, as a start towards organized breeding. First, the creation of breeding-stations that kept a line of purebred pigs to crossbreed with whatever race or crossbred farmers in the region held. Further, the establishment of the herdsbooks, which in part were a logical next step from the bookkeeping of the breeding-stations.

6.8.4. Sex, Gender, and Cattle Breeding. An Outline for a Symmetrical Anthropology of Animal (Re-)Production.

Bäch, Beat, Archives of Rural History, Bern, Switzerland

The role of sex is obvious for cattle re-production. As the breeders say “The sire is half the herd”. But why hasn’t yet nobody told us something about gender in animal breeding? It is just because it doesn’t make such a difference? Sex (Male, Female) and (cultural) gender in the realm of animals? In my presentation I will sketch the importance of sex and gender in animal re-production taking the example of cattle breeding in Switzerland. First, the study of sex hormones and the transplantation of glands – in human and animal reproduction – served in the 1920s as an interface for debates about human and animal sexuality and reproduction. Did homosexuality or intersexuality (also) exist in the animal kingdom? Could only cows be infertile or also sires? Second, the reproduction technology of artificial insemination not only triggered discussions about sexually transmissible diseases and the importance of the male and the female part in cattle breeding, but also initiated discussions regarding the domestic animals “psychosexuality” in the 1950s. Third, the embryonic transfer developed in-between the farm and the clinic in the 1970s was important for the development of (human) in-vitro-fertilisation techniques and it was seen as a means to bring more “gender equality” to the cowhouse. In close interaction with this, the cow’s agency in the act of procreation was perceived as more important for fecundation than before.

Bäch, Beat
Beat Bäch studied history, sociology, and philosophy at the University of Zurich and holds a PhD from the Swiss Federal Institute of Technology. After stays in Paris and Berlin, he was post-doc at Bielefeld University and leader of a junior research group at the Centre for interdisciplinary research, Bielefeld. Today he is Research Associate at the Archives of Rural History in Bern, Switzerland, where he works on the sciatisation and racialisation of cattle breeding in the era of the 19th century. He has published in the history of technology, the history of medicine, and the history of knowledge.

Heitholt, Ulrike
Ulrike Heitholt received her doctorate from the University of Zurich. She was a co-founder of the group Critical Upper Valais and the opposition Valais publication The Future. Since 2008, she is Professor of History and Anthropology of Animal (Re-)Production. In 2012, she was awarded a DAAD fellowship for her research project “Diensten, die Kinder verraten: Geschlecht, Sexualität, Nation (1750-1920)”. In 2013, she was post-doc at the University of Bielefeld and leader of a junior research group at the Centre for interdisciplinary research, Bielefeld. Today she is Research Associate at the Archives of Rural History in Bern, Switzerland, where she works on the sciatisation and racialisation of cattle breeding in the era of the 19th century. He has published in the history of technology, the history of medicine, and the history of knowledge.

Oldenburg, Jesper
Jesper Oldenburg is a Phd candidate in the 10th project: Scientific knowledge in Livestock Breeding in the Netherlands, 1905-2010. He joined in September 2012 at the University of Utrecht in the Netherlands and is supervised by Prof Bert Bäch. His dissertation will focus on the Dutch history of sheep breeding on the origins and use of knowledge within this specific cultural context and trace changes in gender and sexual division of labor in rural contexts. He has published in the history of science, gender and technology. His research is inspired by the history of genealogy, animal husbandry and veterinary medicine – served in the 1920s as an interface for debates about human and animal sexuality and reproduction.

van der Laan, Steven
I work on rural history theses on the historical development of a nineteenth-century attic of women in the Netherlands. In my current project I am exploring the role of women in agricultural research, particularly in the Dutch historical project “Science and society”. My dissertation will focus on the Dutch history of sheep breeding. I will be based at the University of Utrecht, where I am working on a project on the history of poultry breeding in the Netherlands from 1910-2020.

Joris, Elisabeth
Elisabeth Joris received her doctorate from the University of Zurich. She was a co-founder of the group Critical Upper Valais and the opposition Valais publication The Future. In 2012, she was awarded a DAAD fellowship for her research project “Diensten, die Kinder verraten: Geschlecht, Sexualität, Nation (1750-1920)”. In 2013, she was post-doc at the University of Bielefeld and leader of a junior research group at the Centre for interdisciplinary research, Bielefeld. Today she is Research Associate at the Archives of Rural History in Bern, Switzerland, where she works on the sciatisation and racialisation of cattle breeding in the era of the 19th century. He has published in the history of technology, the history of medicine, and the history of knowledge.