

### **9.3.1. Hands-on Agriculture. Conceptualizing the Empirical in German Agricultural Enlightenment (extended abstract version)**

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Increasing crops and agricultural improvement in general was the utmost material concern of German economical Enlightenment. However, in studying the writings of agricultural improvers it quickly becomes clear that their intellectual effort also aimed at the construction of a new kind of knowledge, namely at one that would count as *scientific*. What it meant – in agriculture – to be scientific was a controversial question at that time. My research focusses on this conceptual struggle that I consider as being a prehistory to the emergence of modern agricultural sciences in the first decades of the 19<sup>th</sup> Century.

In this talk I would like to especially address notions of the empirical as one aspect of it. Notions of the empirical were highly ambiguous in German agricultural Enlightenment. On the one hand, pointing to long-term experience and a direct connection to the land served as a selling point on numerous book titles. On the other hand and preeminently in epistemological statements, there was harsh polemical resistance throughout the Century against knowledge solely derived from experience. Contemporary sources suggest that contact with the soil was – by some protagonists – depicted as a lowly practice heavily loaded with cultural bias and that for learned protagonists it therefore entailed certain risks of exclusion from polite discourse. Drawing from different historical statements I intend to elaborate on those ambivalent evaluations of the empirical as a source for agricultural knowledge and on their change in the course of time. By exploring not only the changing meanings and politics of the word ‘empirical’, but also of the word ‘scientific’, the agricultural Enlightenment will be interpreted as an arena for epistemological struggle, within which epistemic and social factors intertwined.

Agricultural improvers were typically university trained professionals like state officials, clergymen, scholars or wealthy land owners. Some of them farmed themselves; a lot of them did not. Although most agricultural improvers belonged to the same economic or cultural elites of their time, I would suggest that one has to be careful with stipulating a homogenic identity. Precisely the question of how protagonists were each connected to the arable land seems to have been a difference of relative importance to improvers. Those improvers who

actually ran farms never got tired to stress that they were practically engaged – either as stewards of rich property or as proprietors themselves. Being educated and physically acquainted with agriculture at the same time, I will argue that these practitioners exerted a strong discursive power within 18<sup>th</sup> century agricultural discourse.

Driven by competition, practitioners supposedly have engaged in experimental practices on their farms at least from 1700 onwards.

Retrospectively it seems odd that these experimental practices were only rarely recognized as scientific practices in agricultural discourse. This becomes clear if one explores what then contemporary authors – practitioners or theoreticians – considered as being scientific agriculture. In a vast majority of the words' usage 'scientific' was synonymous with collecting "true sentences" and putting them into a systematic order. Thus, building an economic system, writing an economic theory, or treating agriculture systematically in a lecture were most frequent descriptions that counted as scientific approaches to the land. In agricultural discourse, as I would like to show, the *arrangement* and *presentation* of knowledge took a far more prominent part in the notion of 'scientific' than the *production* of knowledge.

In accordance with this concept of science as a system of true sentences we find reservation and even active resistance against experiential knowledge, especially in accounts of learned economists and university scholars. In quoting a professor of economics and cameral sciences I would like to demonstrate how scholars actively used the term 'empirical' as a means to discredit experience (and thereby practitioners) as a peasant way of knowing the land. For a certain time so called empirical agriculture on the one hand and so called scientific agriculture on the other hand were being juxtaposed as two different things, with one side being polemically associated with the peasantry.

In the first three decades of the 19<sup>th</sup> Century, however, the empirical became reassessed and agriculture eventually became defined and widely accepted as an empirical science – with experientialism as its central method. It is worthwhile to note that this happened more than one hundred years after the acceptance of experientialism in the realm of the Royal Society and of the Académie des Sciences. Given the fact that experientialist natural philosophy, so famously represented by London and Paris, obviously did not fully determine German

agriculturalists epistemological thought during the course of the 18<sup>th</sup> century, I will end my talk by exploring alternative factors that eventually brought about this conceptual change.

My suggestion will be that practice itself exerted pressure to adapt. As soon as erudite men like the famous physician and agriculturalist Albrecht Daniel Thaer started to engage physically in farming they became acquainted with the land in other ways than by studying books. Accordingly their intellectual production became hybrid and more likely to embrace experience, as relevant quotes are able to demonstrate. Moreover, it seems to have been of paramount importance that from the beginning the agricultural Enlightenment was not an exclusively learned affair. It formed a broad communicative space, within which educated farmers, who represented interfaces between learned and agricultural practices, participated. Rural society and the world of letters both intervened and mixed up in the discourse about farming. One of the main outcomes of this interrelation was – from an epistemological point of view – the enforcement and acceptance of a practical dimension of scientific knowledge and accordingly the redefinition of hands-on agriculture as a part of scientific agriculture. In other words, what had started out as the peasant way of knowing the land became integrated into the concept of agricultural science.

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