

PRUSSIAN CENSUS BOX: MOVING AND FREEZING DATA

Christine von Oertzen

Size and shape: comes in two sizes (and some variations thereof), custom made. Big: 51 x 69 x 27.5 cm, small: 51 x 34.5 x 27.5 cm. **Material:** plain wood, untreated. **Weight:** big: ca. 75 kg (full), small: ca. 37.5 kg (full). **Accessories:** label with state emblem, a number, and name of enumeration district. **Behaviour:** heavy when full. Lid completely detachable, must be firmly closed with eight screws before transport. When opened and closed repeatedly, additional nails must be deployed to prevent unintentional opening. **Habitat:** first winter (from December to January): some local administration office; rest of life span: Berlin, fixed assigned spot in unheated basement or attic of Prussian Census Bureau, or in shed on adjacent premises; from there, circulating within Berlin between the bureau and some 2000 private households. **Distribution:** ca. 3000 (2500 big, 500 small) in 1871, multiplying over the following decades to peak around 1895 with 27,760 in total; occurrence declining between 1914 and 1918. Extinct by 1925. During migration period, spread over Prussia's provinces and enumeration districts, with a higher concentration in urban and industrial areas. After migration, entirely bound to Berlin. **Migration:** at beginning of life span, when new. Usually leaves Berlin after production and filling with enumeration material, travels to predetermined locations within Prussia by means of train and/or horse carriage (later by truck). Outbound migration period: late November; inbound migration: late January of following year. **Life span:** produced ca. every three years. Lives for ca. two years, thereafter dismantled and recycled. **Content:** four (big box) resp. two (small box) stacks of 2500 enumeration cards (330 x 240 cm, weight 7.5 gm) for census taking. **Cost:** 3.11 Reichsmark (on average, excluding recycling fee).

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TO MY KNOWLEDGE, NOT ONE OF THE ORIGINAL PRUSSIAN CENSUS BOXES has survived. They were not meant to endure, but what we do possess is information about their measurements, material, and above all context: what census boxes were for and how they were used. Made of untreated wood, the boxes were first and foremost simple, sturdy, and cheap. They were produced on a mass scale for a strict date: 3000 (2500 big ones and 500 small ones) of them had to be ready for a huge delivery that would not tolerate delays. Boxes of this kind must have looked like the ones depicted here (**FIGURE 29.1**), reconstructed with accurate dimensions by a Berlin carpenter: slim boards cut to size for bottom, top, front, back, and sides. With neither time nor funds for any costly extras, the boxes were likely to be nailed or screwed together, with slats not just holding together each segment, but also providing stability for the entire structure. Eight screws kept the top shut. Reopening and closing the box was a procedure that could not be indefinitely repeated.

So, what makes these ordinary objects special? Notwithstanding their simplicity, these boxes played a crucial part in what was a new and exciting endeavour. Almost everywhere in Europe, census and population statistics had expanded into complex operations by the second half of the nineteenth century, driven by efforts to render them 'scientific', i.e. to turn them into verifiable, 'objective' descriptions of the population (Porter 1995; Desrosières 2002). International statistical congresses hosted in different European cities after 1853 intensified methodological exchange and created state-of-the-art standards. Initially slow to adapt this new trend, by the end of the 1860s Prussia's statisticians had radically transformed their methods and practices of census taking. At the heart of this fundamental shift towards modern data processing lay a new paper tool: the so-called individual counting card. This was a simple sheet, 210 mm in length and 120 mm in width, designed to record all enumeration data of one person. Counting cards had replaced enumeration lists in Prussian census-taking by 1871. In contrast to the bulky lists, the cards were light and movable. These data carriers were also praised for their ability to greatly enhance statistical complexity. Prussian statisticians were proud to emphasise that the counting card allowed them to compile tables displaying a richness in combination of variables that no other nation in the world was able to achieve (von Oertzen 2017).

A. Volkszählung am 1. December 1871. 202 ..

Herzogthum Lauenburg.

Ort, Gemeinde _____

Straße oder Platz _____ Haus Nr. _____

Zählbezirk Nr. _____ Zählbrief Nr. _____ Zählkarte Nr. _____

1. Vor- und Familiennamen: _____

2. Geschlecht: _____

3. Geburtsort: _____

Kreis: _____ Staat: _____

4. Geburtstag und Geburtsjahr: _____

5. Familienstand: _____

6. Religionsbekenntniß: _____

7. Stand, Rang, Beruf, Erwerbszweig; Arbeits- oder Dienstverhältniß.

Hauptbeschäftigung: _____

Etwaige, mit Erwerb verbundene Nebenbeschäftigung: _____

8. Staatsangehörigkeit (Name des Staats): _____

9. Wohnort (der Personen, die für gewöhnlich nicht an der Haushaltung theilnehmen): _____

Kreis: _____ Staat: _____

10. Schulbildung, d. h. kann lesen und schreiben? _____

11. Besondere, die Bildungs- oder Erwerbsfähigkeit beeinträchtigende Mängel:

blind? taubstumm? blödsinnig? irrsinnig?

Man wolle vor Bekanntwerden der Resultate die Abfertigung D. vergleichen.

FIG. 29.2 Prussian Counting Card, 210x210 mm (1871) (source: Prussian Secret State Archives (Geheimes Staatsarchiv Preußischer Kulturbesitz, Berlin))

Although each counting card weighed a mere 7.5 grams, taken together, the almost 50 million cards produced for the 1871 census amounted to 375 tons of material. The daunting mass of loose paper slips needed to be moved to all the Prussian enumeration districts and then be circulated within Berlin, where the centralised processing of the data was to take place. This is where the census boxes came into play: custom-made to hold between two and four stacks of 2500 counting cards, the boxes allowed the enumeration material to be apportioned into manageable units. Five thousand cards packed into a small box provided enumeration material for more sparsely populated rural districts, whereas the big boxes filled with 10,000 cards accommodated larger, urban, and industrial areas. Filled with the papery load, each box weighed 37.5 kilograms

or 75 kilograms, just about the limit of what one and two workers respectively could lift and carry (Engel 1873).

The production of the boxes, and the printing of the counting cards, control lists, and instructions for enumerators set Prussia's data machinery in motion. Once all the material had been delivered, the Prussian census bureau was transformed into a beehive of activity. As census clerks and their assistants checked and apportioned the paper material, the packing department teemed with packers, porters, and carpenter helpmates getting the boxes ready for their journey, a task often hampered by the masses of material piling up around them. Only after a telephone line was installed between the census bureau, the printer, the box factory, and the haulage company in 1892 did the work flow more smoothly without delays 'caused by the bothersome congestion of empty boxes and the lingering of filled ones' (Blenck 1897, 197–8).

While transporting was their main function at the beginning of their life span when heading out of Berlin, the boxes were never just vessels for hauling enumeration material to and fro. Coming back into the city two months later, after the enumeration effort was completed, the boxes assumed additional importance. They became a wandering archive, keeping the state of their content stable while being in constant motion. The enumeration effort had turned the boxes' load from packs of identical pre-printed paper forms into thousands of distinct and irreplaceable carriers of original census information. All of the census data were inscribed on individual counting cards. The looseness of the gathered data was considered crucial for the abstraction process, but at the same time, all depended on the order in which the cards were kept. The boxes ensured such order: they protected the cards from being separated, and thus preserved their context.

When the 3000 boxes – with 375,000 kilograms' worth of millions of filled-in counting cards and various control lists from all the Prussian enumeration districts – reappeared at the census bureau's headquarters in early 1872, each one of them was placed in a fixed pre-assigned space, ranging from the basement or attic of the main building to a shed on the adjacent premises. The three-storey domicile of the census bureau, completed in 1869, was not designed for storing and moving such massive amounts of enumeration material (Blenck 1897). Handling the colossal masses of data entirely in-house proved daunting, with

boxes piling up in every corner. Storing, tracking, retrieving, opening, and closing the cases, and handling the millions of cards required much more space and time than previously assumed, mounting to a point that the planned abstraction procedure had to be altered. Rather than exhaust the material category by category in many successive rounds of sorting, compilers were advised to not move each box more than three times. This meant that the compilation work had to be completed in three comprehensive counts, each including the abstraction of numerous criteria in one fell swoop (Engel 1 December 1872. GStA, HA I, Rep. 77, Tit. 77, Nr. 132).

The census bureau hired an extra three hundred workers to check the incoming data and handle the counting and sorting of the cards. That said, it is important to note that most of the work was not done on the bureau's premises, but instead distributed for homework. The scope and steadiness of outsourcing to the private homes of the bureau's workers and their wives and female kin suggests that homework expanded to accommodate the abstraction process: much space and many faithful helpers were needed to process the data (von Oertzen 2015). Keeping the boxes with the paper cards in constant motion between the bureau and different homes proved an efficient way to handle the volumes of material.

Homework emerged as a key component in the processing of Prussian census data over the following decades, growing in volume considerably each year. For the 1890 census, the main bulk of abstracting census records was performed by up to two hundred and sixty-four women, toiling at piece-rate from home (Blenck 1892: 256). A peak was reached in 1895, when the census bureau employed 1000 wage-workers and about 3000, mostly female, home workers to compile the commerce, trade, and agricultural statistics of that year, the most comprehensive statistical investigation the agency had ever undertaken. Between October 1895 and May 1896, no fewer than 27,760 of the big 75-kilogram boxes were shipped to the homes of workers and collected each time one of the three counts was completed. 2,137,600 kg of statistical material was circulated during this time, with counting cards strewn all over Berlin and its outskirts. During this process, 362,284,360 numbers were abstracted from the cards and written by (many different) hand(s) in half a million table forms, which, spread out side by side, would have covered 53,000 square meters. All

this was achieved by circulating thousands of boxes across the vast city (Blenck 1897: 302).

The sheer mass of the material, then, required the boxes to migrate beyond the census bureau, but it was their movability that rendered such a system possible. A close look at the workflow exposes a further function of the boxes: they enabled the sequencing and control of the circular abstraction process. The census data were processed in the following way: first, each box was carried from its fixed storage location in the census bureau to a clerk's desk, where it was opened and checked for completeness. Re-sealed safely, and accompanied by table forms and meticulous instructions explaining the sorting plan, the box was then dispatched to a home. There it was re-opened and unpacked. The cards were sorted into piles according to prescribed criteria, counted, and the resulting numbers noted on the respective table forms. Kept in its new order, each pile of cards was wrapped in paper, labeled in a specific manner, and put back into the box. Re-sealed and secured with the lid-screws, the box returned to the census office for control. In this fashion, each box was sent back and forth up to three times between the bureau and individual dwellings (additional nails had to ensure the lids would not fall off) (Blenck 1892: 214). During this process, each counting card was subjected to three comprehensive rounds of sorting and counting in order to establish the numbers and combinations of variables for the complex Prussian statistics, which soon gained international recognition. What reads like a complex, if relatively straightforward, method of circulation turned out to be a good deal messier in practice. Because at-home workers were compelled to pay the bureau's transport costs, many chose to pick up and bring back their boxes themselves; also, different portions of material were delivered to each household, depending on the respective capacities of the workers. The expansive machinery of manual census abstraction turned Berlin's city space into a fine-meshed net of actors, destinations, and routes, transforming the dispatching of material into a choreography preciously few of the bureau's workers mastered (von Oertzen 2017).

While the boxes circulated within Berlin on different routes, the cards in them could only move in one direction. Each new round of sorting built upon the piles assembled in the previous turn. There was no way to restore the cards' original order, and hence no reason to keep them for re-use. When the last round

of sorting was completed, the cards in the boxes were, indeed, exhausted like a pile of waste, and the data on them wilted. What ‘counted’ were the tables fixed in publications. Circulation had come to an end. Bereaved of their movement, the boxes found themselves merely in the way. And soon, along with the census records they carried, they were discarded, demolished, and recycled.

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