

By some accounts, the total Allied air offensives during World War II dropped almost two million tons of bombs on Germany, completely destroying over 60 cities, killing an estimated 583,000 Germans as well as 80,000 Allied air crew.

Plans for protecting German factories in underground bunkers, caves, tunnels and mines began as early as 1943, but intensive efforts for subterranean dispersal only began in the summer of 1944. Plans for underground production facilities, which were enthusiastically encouraged by Hitler, were to be completed by 1946 with a completion ratio of six bunker systems every seven months, and a total combined floor plan of over 1,864 square miles.



The study presented today focuses on three labor camps near present day Porta Westfalica, 70Km, 44 miles west of Hannover, which were involved in creating one of these underground dispersal systems.



Porta Westfalica is situated on the east of the River Weser around the Jakobsberg mountain. Into the side of this mountain is where a large, multi-level tunnel was built, with the plan to put in an oil refinery, aircraft construction and radio parts factory. Labor for constructing the underground factory, and for the radio parts factory, was supplied by local concentration camps, most notably Neuengamme, near Hamburg. Prisoners consisted mainly of Jewish inmates, Russian, French and Polish prisoners of war, and Danish political prisoners.

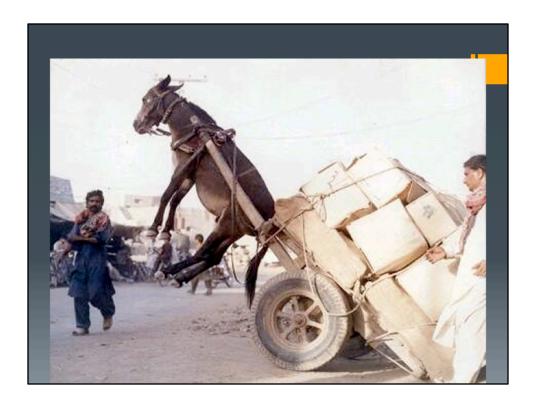


With hopes of finding plentiful events, the scope was narrowed to focus only on the time that a survivor was encamped at one of the Porta Westfalica labor camps, Barkhausen, Lerbeck or Hausberge, and their accompanying work site.

Before I even had the data, I wanted to do some kind of spatial analysis. That's like buying a car just for the experience of changing a tire, or more accurately, putting the proverbial cart before the horse.



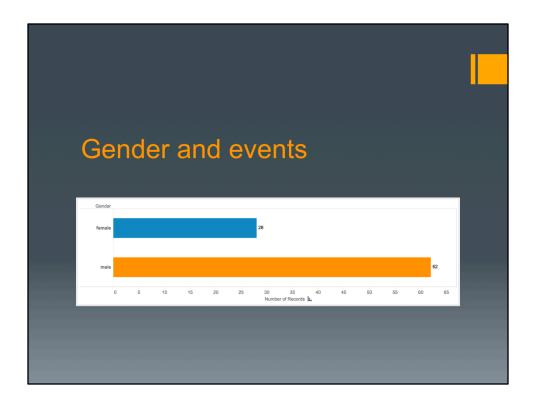
Nevertheless, I was certain that there was some spatial context to analyze, because every event happens somewhere, and looking at the somewhere can help us understand more about the events.



Too much data can feel like this. Unfortunately, I think I have too little, but there can still be some analysis made.

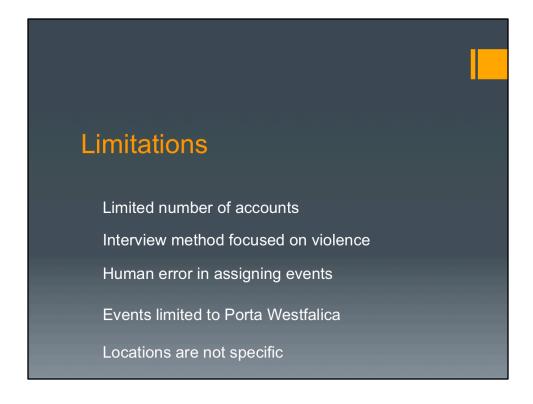
As I looked through the transcripts what stuck out most were the number of gender based questions.

Other location-based questions arose as well; such as where did the majority of work, violence, and death events happen? Which location had the most events? I was also interested in seeing what patterns or information stood out that was not anticipated.



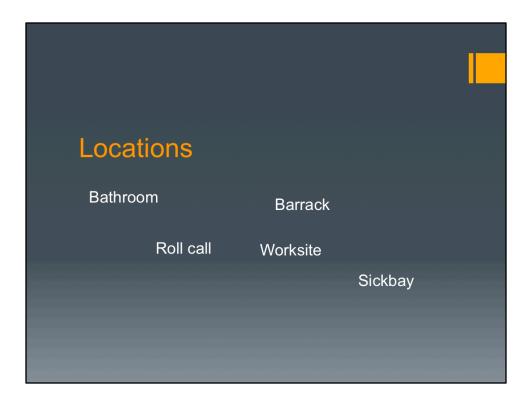
The data points come from an original pool of 25 transcripts of interviews or other written accounts by survivors predominantly taken during the 1990s. Only 14 ended up having events that could be used in this study. While most of the accounts contained plenty of spatial references, only 14 had such references while recounting their time at the Porta Westfalica camps. Females accounted for 6 and males for 8 of the accounts used in this study. A total of 90 events were found in the 14 accounts.

I was hoping the accounts would be replete with retellings of events and graphic descriptions of the locations where they happened. It would have been great if the survivors were able to describe in detail where they were standing at any given point and had a plethora of events to recount. In reality, the events were much more general and quite vague. Instead of someone describing where exactly in the camp or tunnel they were standing when an event of violence happened, the event was reported more generally; an act of violence happened. For example Tadeusz Kaminski, an 18 year old Polish prisoner in Lerbeck reported that "the camp elder was a German, a sadist without any feeling. Even early in the morning before roll call he would beat the prisoners without mercy. He had a riding crop always with him and would beat as the feeling came." No specific location is given, just that violence would happen.



A number of limitations of the data should be addressed.

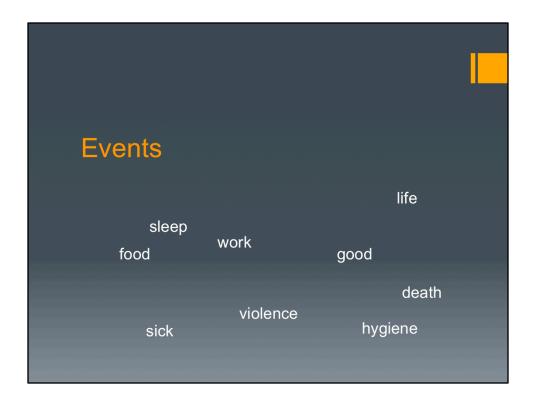
- First is the limited number of accounts used in the study. Fourteen is admittedly a small number compared to the 2,970 prisoners at the three camps, and therefore all interpretations and conclusions are given in light of a decided lack of representation. Nevertheless, the results that do come from the limited data are instructional and can, arguably, be reflective of the larger number of experiences at the camps.
- 2. Second, a number of the accounts were taken from legal depositions or questionnaires where the intent was to show the brutality and inhumanity suffered at the camp. While these accounts may have a tendency to skew the resulting events towards the violent and negative, it can rightly be argued that due to the nature of the camps the overwhelming experiences would be that of violence, death and work.
- 3. Third, in some cases I may have been more general and forgiving as to what constituted an event than I was for other accounts. This was not a conscious choice, but is rather an acknowledgement of human error.
- 4. Limiting the events to their time in Porta Westfalica severely truncated the experiences of the survivors. Generally, only a third or less of the entire account was about the survivor's time in the Porta Westfalica camp.
- 5. Lastly, the locations of the events were not specific enough to generate a unique



I began the process of recording events by making a list of locations and events that I thought would show up in the accounts. My initial list of locations included

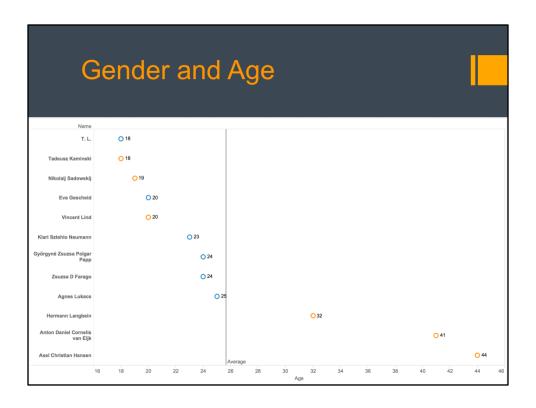
bathroom, barrack, roll call, worksite, and sickbay.

In most cases, determining an event was pretty straightforward. For example, Eva Gescheid frankly described, "we possessed no shoes." That describes an aspect of life, so easily fits in the life event. The location is less clear. If this is to mean that they had no shoes at all, period, for their whole time in Hausberge, then this event could apply to all locations. In the instances of avocation, food, life and sleep events, I placed all of these in the 'barracks' location.

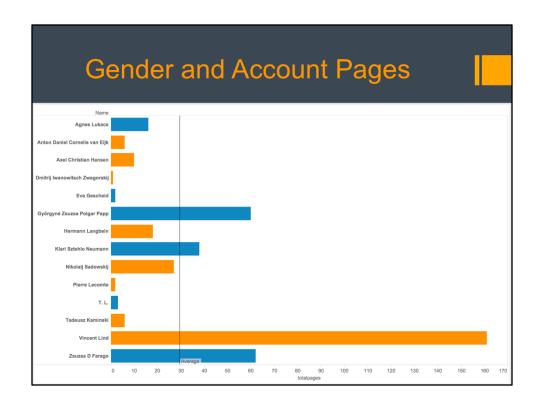


Events consisted of:

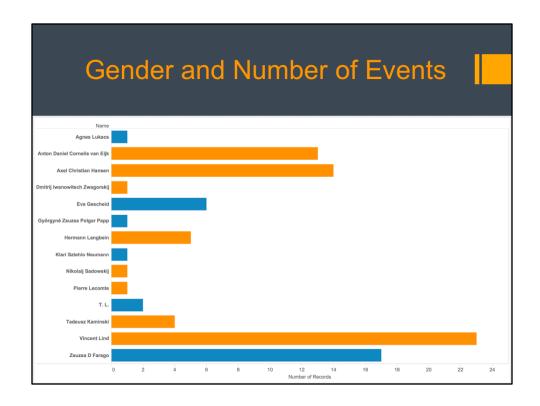
Sometimes the event and location are clear, as is the description of a death retold by Anton Daniel Cornelis van Eijk, a Danish prisoner of war at Lerbeck. "I sat in Lerbeck for six months, and in these six months, so far as I know, two people died." He then recounts the story of a young Polish man, 28-30 yrs old, who was hanged because he called a camp elder (Lagerältester) a communist. A few prisoners, perhaps Russians, helped with the hanging. Apparently he was not completely dead when they finished, so he was taken to the sick bay where he was given an injection of gasoline which caused him to die. Here both the location and the event are known.



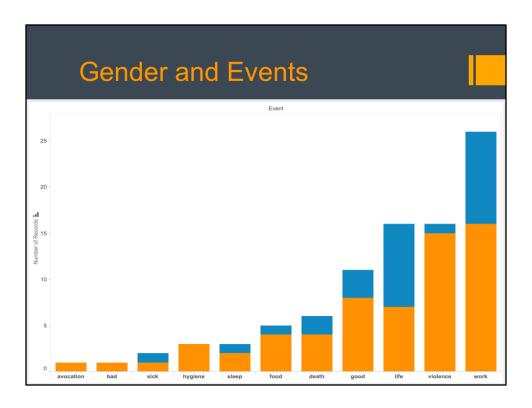
The number of interviews ended up being pretty evenly split with six female accounts and eight male accounts. This is rather interesting as there were nearly twice as many male prisoners (1,970) as there were female (1,000). Unexpectedly, the number of accounts from the Barkhausen camp (4) is equal to the number from Lerbeck (also 4). With nearly three times as many inmates at Barkhausen (1,300) as at Lerbeck (500), one would think more accounts would come from Barkhausen. Again this points to the limitations of the study, in that a proportionally representative number of accounts from Barkhausen were not available. The average age of the survivors at the time of internment was 25.5 years of age. Two survivors, Dmitrij Iwanowitsch Zwagorskij and Pierre Lecomte did not have enough data to determine their age at the time.



The total number of pages in each survivor's account is also telling. Males totaled 229 pages of accounts, while females totaled 181 pages. Each survivor averaged 30 pages of interview transcript, although that number is a bit misleading. Only four individuals actually surpassed 30 pages of interview, three women and one man. Vincent Lind, a 20 year old political prisoner from Denmark, accounts for half of the men's page count at 161, and by far the most pages of any survivor in the study. Zsusza D Fargo and Györgyné Zsuzsa Polgar Papp, both 24 year old Jewish women from Hungary, had 62 and 60 pages respectively, and Klari Sztehlo Neumann, a 23 year old Jewish woman from Hungary was the final survivor over the average with 38 pages.



Comparing total page count with the number of events in the study is also enlightening and somewhat counter intuitive. While Vincent Lind and Zsuzsa D. Farago do indeed have the most number of events represented in the study, Zsuzsa Papp, who had the second most total number of pages, only provided one event to the study. Likewise, Axel Christian Hansen, a 44 year old political prisoner from Denmark, and Anton Daniel Cornelis van Eijk, a 41 year old prisoner of war from Denmark, each contributed 14 and 13 events respectively, while only having 10 and 6 pages of account respectively. This simply shows that the number of pages in the account do not necessarily predict the number of events reported.



Looking at the events related by gender also uncovers an interesting dichotomy. While males had at least one record in each event, the female accounts mainly centered around three events: work, life and good experiences.

According to the few accounts available, women spoke predominantly about life in the camp, they talked about the work they were forced to accomplish, and they related a few good experiences. Interestingly, life experiences only had one less than work experiences, 9 and 10 respectively. This seems to indicate the women were more focused on the work and living conditions while at Porta Westfalica. For the women, only one instance of violence was recorded. Eva Gescheid recounts how the commander was an outspoken sadist who carried a stick that she use to hit us randomly and without purpose. Again this shows the limitations of the study. There were many beatings that took place, but this is only counted as one event in the study.

As anticipated, men focused their accounts mainly on work and violent experiences, followed by good and life experiences. Also as expected, 51 events—over half the total number of events—speak of negative experiences, with 11 instances of good events happening. Surprisingly, there were not as many accounts of death as expected. With a higher percentage rate of deaths than at the parent camp of Neuengamme, I expected there to be more death events in the accounts than was



Turning to spatial representations of the data show an equal number of interesting patterns. Work events are the most numerous (26), followed by violence and life events (16 each), good experiences (11), and a surprisingly small number of death events (6).



Placing these events where they happened provides more insight. As one might expect, most of the work events happened at the work location

One of the main questions I had was where did the violence happen. I speculated that most violence occurred near the camp rather than at the work site, in that the SS guards would rather their prisoners work and therefore refrain from violent actions. This assumes that most violent actions came from prisoner guards, but in actuality, violence most often came from fellow prisoners, specifically those with some position like the Lagerältester. Indeed, all seven accounts of violence in the work place came from fellow prisoners. Only two cases of violence at the barracks where perpetrated by camp guards. All three violent events during roll call were carried out by SS guards.

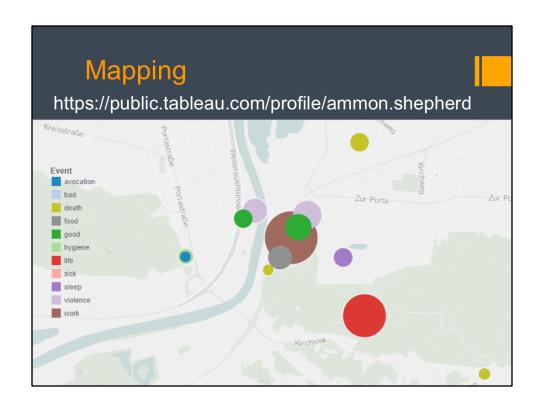
There were an almost equal number of good experiences as violent experiences at the worksite, and to a lesser extent the barracks. The surprising number of good experiences come from three individuals, some describing the beauty of the landscape, some describing positive interactions with other inmates or civilian laborers, or even a positive interaction with a Gestapo officer.

Perhaps obvious, only negative events happened in the sickbay; three deaths, and one each of violence, sick and bad.



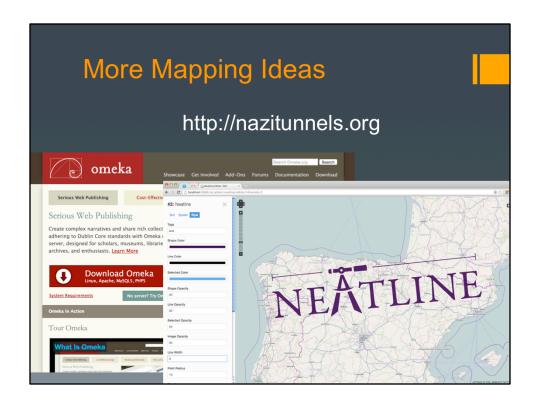
Looking at the different camps also shows patterns. Not surprisingly, at the three labor camps, work events are the most numerous.

Lerbeck had almost double the number of violence than either Barkhausen or the Jakobsberg worksite, possibly because Lerbeck included living and working conditions, but had less than half as many accounts of work than the work site at Jakobsberg.



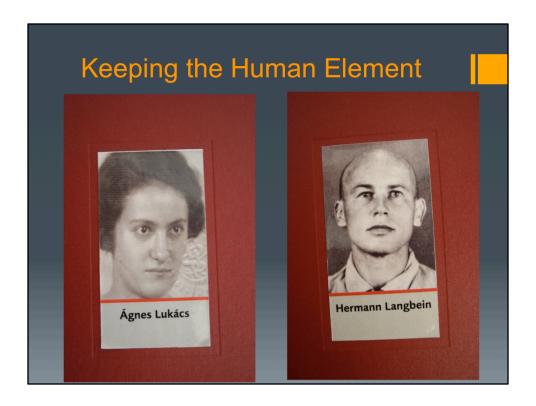
Attempts were made at mapping the various events and the location, but due to the small number of locations, the maps do not reveal much more than the graphs.

All of the data and visualizations are available and free to download and inspect at tableau.com.



A further spatial study arose while reading through the interview accounts. Central to all remembrances was the complete circle the survivors made in terms of their journey; from initial confinement to internment and transportation to various camps, and the journey back home. The next spatial project will use Omeka and Neatline to create an interactive journey of several survivors. As the narrative of the journey is told, the locations will be displayed on the map, and visitors will be able to follow along on the map as well as with the narrative.

The project will be hosted at http://nazitunnels.org



One final thought and caution to keep in mind when doing spatial projects with such sensitive and emotional data is that plotting and graphing the data can abstract the humanity from the survivors, as they become dots on a map rather than people. Care must be taken to keep the humanity in these spatial humanities studies.

One way to do that is to always reference the names and use examples of their experiences.