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Bones in Lyuban

Saint Petersburg is known for being one of Russia's most important cities, as a closely governed port city with the second-largest population in the country. With heavy infrastructure and a strong economy, it is a well-defended and valuable asset. Several miles southeast is Lyuban, a small town nestled into forests with a railway station connecting it to Saint Petersburg. In 1941, Hitler launched Operation Barbarossa to try to gain control of the city, which was called Leningrad at the time. One of the main battles was fought at Lyuban and the nearby Lake Ladoga, resulting in a massive German victory with over 100,000 men killed. Lyuban itself holds a population numbering under 10,000. Rural and disconnected from many modern luxuries, the area has been mostly untouched since the Battle of Lyuban. Moving into the town, the properties are large with a wide expanse of land in the backyard. One house, in particular, borders an old, rocky path at the very end. As the new owner of the property, I am told that the trail has begun to be used more due to an expansion of Lyuban's lumber factory. A local company is hired to pave the path into a more usable road, with my given permission allowing them to access my backyard; as an added benefit, this will increase the value of my new home. Several weeks after the company finishes remodelling, I decide to improve the landscaping of that part of the backyard. Digging in, my shovel hits a set of bones lying close to the surface. After uncovering them, I find that they are light and seem to be human remains, with bones from about three people in total.

This situation was a reality on a different Russian highway, where officials found fragments of bones and skulls from human remains scattered along the road. Upon investigation, it was found that the bones were accidentally distributed along with some sand used to de-ice the highway. The company in charge of this had taken the sand from a site close to a cemetery, near a Russian Civil War-era burial site. As a result, several of the bones were found to be over 100 years old (Lock 2020). The bones in my backyard located near the city of Lyuban, on the other hand, may have been similarly distributed by a company after being taken from the nearby forests. These forests hold the remains of 19,000 lives lost during Operation Barbarossa, of which only 2,000 bodies have been

found so far. These bones would look to be just over 100 years old as well, since the battles were fought in 1914.

The Exploration team is a group focusing on excavating bodies of those who lost their lives in this forest bordering Saint Petersburg. Their goal is to both find and identify the dead in the forest, and their excavation procedure provides a baseline for what to do next for me, as someone who found bones in my Lyuban backyard. The team excavates, labels, and stores the bodies of those found in the forest. The team's technician "uses ultraviolet light and digital imaging to reveal the faded pencil marks" (Ash 2014) on any nearby ID tags, which may provide a name for the bones. If no name is found, the bones are packaged and sent to a team in the city of Volga in Kazan. Once a name is found, the team uses army lists and documents to identify if it matches with the name of a soldier, which is then used to locate family members of the soldier. Because the Exploration team works with the goal of identifying the soldiers, a large component of their work is giving family members of the soldiers respite and closure on their deaths. The bones themselves are given a proper burial with any found family in attendance. Another bone excavation in Russia providing some context for how to proceed is the uncovering of the lost Romanov bones in 2007. Found in Yekaterinburg, diggers working in a group similar to the Exploration team found a set of two human skeletons, which were later identified as Alexei and Maria Romanov. The diggers first contacted archaeologists, who then examined and confirmed that the bones belonged to people of the same age and sex as Prince Alexei and Grand Duchess Maria; DNA samples later confirmed the suspected identities (Harding 2007). The Deputy Director of the Sverdlovsk Archaeological Institute then corroborated the findings, turning the results over to the press.

Given these excavations, my first step is to contact local authorities and digging groups to find an archaeologist to help date and identify the bodies. If identified, surviving family members could be called as a potential "owner" of the bones. To first identify the bones, techniques in forensic archaeology and DNA historical research must be used. With the former techniques, the nature of the bones can be determined. By identifying the shape of the jaw and mandible and the width of the pelvis, the sex of the skull can be determined as male and female (Cox, 2021). Any injuries found in the bones can also provide information about the age and profession of the bones. Nearby

artifacts, such as army ID cards, can give a view of whether the bones do belong to a soldier fighting in the Battle of Lyuban and the Siege of Leningrad. Forensic DNA profiling can provide more concrete information about the genetic makeup of the bones. This involved taking genetic material from the remains and comparing them to DNA databases, which “have expanded considerably in size and scope since their inception in the early 1990s” (Winickoff 2011). The genetic power, combined with ever-growing DNA databases allows for incredible traces through time that can link remains over hundreds of years old with surviving families. The use of these databases can provide concrete information tracking the fallen soldiers and their relatives that allows them to gain closure over the fate of their loved ones.

However, this brings up moral questions about the use of DNA, especially without the explicit consent of the soldiers or their families. In the past, forensic DNA techniques were not as trusted or used due to “susceptibility to false interpretation and contamination, the lack of any rigorous standards for the production and interpretation of DNA profiles, [and] high costs” (Toom 2012) as well as a lack of extensive databases allowing for strong links to be found. Because DNA samples were hard to extract and analyze, they were less commonplace and thus its use was considered a greater infringement on human rights. However, eventually new laws began to be passed in the 1990s, notably in the Netherlands, taking away criminals’ rights to their bodies and concurrently their rights to refuse DNA profiling. The polymerase chain reaction (PCR) was also created during this decade which made DNA analysis more robust and easy. This encouraged the creation of newer and better forensic genetic analysis techniques to be developed, as for DNA profiles to become “standardized and partly computerized” (Toom 2012). As new laws were passed in the early 2000s reducing criminals’ rights to their bodies, the use of DNA testing became more and more commonplace. This also added to the DNA databases and strengthened the technique overall. The DNA Convicted Criminals Act mandated that every criminal charged with 4 or more years in prison will be DNA profiled and have their information stored. These laws all culminate in greater potential for DNA testing, especially in a forensic context.

I argue that the rights of self provide support that DNA belongs only to the person created and defined by that genetic material. With regards to the morality of running genetic testing on the bones found in my backyard, DNA analysis gives strong

potential for family members to be identified using the method. There are four parties that could be described as owning or speaking for the bones: the soldiers themselves, their families, the army, and myself as the owner of the land. If the bones were found in my property, it could be argued that they belong to me and I can choose to run testing and analysis on them. Specifically in this situation, the soldier and their families are not identified so the first two groups are unknown, and the army may be uninterested in spending resources on these bones. This leaves me, as the finder of the bones, as the only party able to identify and speak for the bones.

Should the soldier be identified and linked to some relatives, perhaps through an ID tag analysis similar to those used by the Exploration team, this allows their family to provide consent and a voice to the bones. In this case, it can be argued that because the family shares DNA with the soldier, the DNA is in part theirs as well. This can also create a sense of ownership over the bones, encouraging them to speak for them. The soldier would have had a stronger relation and vested interest in their family than in the finder of their bones so it may be hypothesized that the soldier themselves would prefer for their family to retain ownership over the bones.

However, these soldiers were not criminals and cannot give consent to being DNA profiled, which raises the question on whether it is ethical to use genetic testing to identify them in the first place. We cannot know if the soldier would want to be identified or have their relatives unearthed. Additionally, if I or the army DNA profiles the soldiers, this may bring dark and harmful secrets about the family or the soldier to light, ultimately harming the identified soldier. Bones cannot describe potential trauma or harm caused by the family that the soldier may not want revealed or linking them back to their relatives. Additionally, genetic testing may split up the soldier's family should affairs or unexpected relatives be found. DNA cannot speak for lives lived; it can only speak for how that life was shaped.

Ownership of the bones creates a new moral problem. Here, there are three potential parties: the family, should genetic testing occur; me, as the owner of the land the bones were ultimately found on; and museums or official scientific or historical institutions intending to study or preserve the bones. Additionally, if there is a mistake in how the bones came to arrive on my property when the nearby road was being paved, such as the Russian highway where material was excavated "from a site close to an old

cemetery” (Lock 2020), this may give potential ownership to parties involved in that line of transportation. The question of ownership cuts the original person out, as bones cannot retain ownership of themselves after death. In this case, the finder of the bones retains ownership as they can do what they would like with the bones. If officials are called to inspect them, they may seize ownership and start an investigation if the bones hold historical significance.

DNA has the unique property of providing lasting evidence for identity and connecting people through time and space. The true owner of some DNA is the person who was created by it, as they understand the full scope of their lives and therefore the lasting impact of their genetic material. For the bones in my backyard, although it is a noble goal to identify them through forensic archaeology and genetic testing, the fallen soldiers cannot consent to their DNA being used, and their families may find harm instead of benefit should the bones be identified. Because of this, the bones themselves should speak for themselves.

Bibliography

- Ash, Lucy. 2014. "Digging for their lives: Russia's volunteer body hunters." BBC.
<https://www.bbc.com/news/magazine-25589709>.
- Cox, Margaret. 2021. "Forensic archaeology: Finding human bones." Future Learn.
<https://www.futurelearn.com/info/courses/forensic-archaeology-and-anthropology/0/steps/67861>.
- Harding, Luke. 2007. "Bones found by Russian builder finally solve riddle of the missing Romanovs." The Guardian.
<https://www.theguardian.com/world/2007/aug/25/russia.lukeharding>.
- Toom, Victor. March 2012. "Bodies of Science and Law: Forensic DNA Profiling, Biological Bodies, and Biopower." *Journal of Law and Society* 39, no. 1: 150–66.
<https://doi.org/10.1111/j.1467-6478.2012.00575>.
- Lock, Samantha. 2020. "Russian Authorities Launch Probe After Sand With Human Bones Used to De-ice Highway." Newsweek.
<https://www.newsweek.com/russian-authorities-launch-probe-after-sand-human-bones-used-de-ice-highway-1547905>.
- Nelson, Alondra. 2016. *The social life of DNA: race, reparations, and reconciliation after the genome*. N.p.: Beacon Press. 1-94.
- Winickoff, David E. 2011. "Judicial Imaginaries of Technology: Constitutional Law and the Forensic DNA Databases."
https://direct.mit.edu/books/chapter-pdf/200726/9780262298667_cag.pdf.