

Article

Interconnected Histories: Searching for Jacob Gens' Grave and Instead Finding a Forgotten Early 18th Century Cemetery

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Abstract: Jacob Gens, the head of the Vilnius Ghetto Police Force, and eventually the entire Ghetto during the Holocaust, was murdered on 14 September 1943 by the head of the Vilnius Gestapo. Historical documents and Holocaust survivor testimonies indicate that he was killed at a site that became known as the Rasu Street Prison, and not the Gestapo Headquarters, as it is widely believed. In 2016, research was completed at the Rasu Street Prison site using ground penetrating radar (GPR) and electrical resistivity tomography (ERT) to locate subsurface reflection patterns that possibly indicate the location of where Jacob Gens is buried. Intersecting GPR and ERT reflection patterns were discovered and a plan was put in place to excavate that location. The excavation revealed the presence of human remains at 1.45 m below the surface. A skull and upper torso were exposed, and two teeth were collected for DNA and radiocarbon analysis. The DNA from the tooth was compared to Jacob Gens' daughter's DNA, and this comparison yielded a negative result, so the human remains were not those of Jacob Gens. The radiocarbon analysis provided a date between 1685 and 1735. In 1705, a plot of land was donated to the Visitation Monastery, which used this plot, and which coincides with the location of the Rasu Street Prison, as a cemetery for the poor. In 1709 and 1710, a plague epidemic was prevalent in Vilnius, as was turmoil and famine associated with the Great Northern War (1700 to 1721). Based on these discoveries, rather than finding the remains of Jacob Gens, it is likely that we found human remains that are part of a forgotten 18th century cemetery associated with the Visitation Monastery.

Keywords: Holocaust; Vilnius; Jacob Gens; geoarchaeology; forgotten cemetery; interconnected history; ground penetrating radar (GPR); electrical resistivity tomography (ERT)



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1. Introduction

This research is related to the interconnected history of a location in the Old Town section of Vilnius, Lithuania. As humans, part of our relationship with the places we live comprises a cultural landscape that is created and reflects our (human) interactions with that place at that time (Plumwood 2008). The cultural landscape of Old Town Vilnius is a geographic area that possesses remnants of the history of human interaction with the natural environment in that area for hundreds of years, which includes both natural and cultural features associated with a person, event, or activity. In the case of this research, it involves

the execution and burial of Jokūbas Gensas (hereafter, Jacob Gens) on 14 September 1943, and the history and activities of the Visitation and Missionary Monasteries who occupied the same area in the 17th and 18th centuries.

Jacob Gens was a Jewish resident of Vilnius that held various positions of authority while German forces occupied the city during World War II. The authors of this article were contacted in 2015 by Irene Bernhard, Gens' granddaughter, on behalf of Ada Ustjanauskas, Gens' daughter, regarding their desire to find the location where Gens was buried. Most sources report that Gens was told to report to the Gestapo (German Secret Police) Headquarters on 14 September 1943, where he was shot and immediately buried in an already prepared grave (Conroy 2006; Yad Vashem 2025; Holocaust Research Project 2012; Kruk 2002). Ada and Irene believed differently. Based on information they compiled from numerous sources, they concluded that he was shot and then buried at location on Subačiaus Street, at a place they called the Rasu Street Prison. The information they compiled, which is presented in the Historic Background section of this article, was the impetus for creating the project to find the grave of Jacob Gens.

Figure 1 presents the geographic information relevant to this research, including the location of Vilnius in southeastern Lithuania, the current municipal boundaries, and the location of the Vilnius Old Town section within the city. The Holocaust-Era Ghettos where Jews were held captive by Nazi Germany were located within the boundaries of Old Town. Two separate Ghettos were established (Ghettos 1 and 2), beginning in early September 1941. Located approximately one kilometer east of the Ghettos was the site of the Rasu Street Prison. Related to the creation and then the subsequent liquidation of the Ghettos (Ghetto 1 in October 1941 and Ghetto 2 in late September 1943) is the extermination camp in the Ponar (Ponary) forest, southeast of the Ghettos. Tens of thousands of Jews from the Ghettos were transported to the forest, shot, and buried in mass graves (Arad 1980).

In June 2016, exploratory research using various geophysical techniques (including ground penetrating radar (GPR) and electrical resistivity tomography (ERT)) was completed at the Subačiaus Street site, which is now used as a training facility for the Prison Department (as of 1 January 2023, the Lithuania Prison Service). Based on the results of these geophysical surveys, a request to complete an exploratory archaeological research project at the site was approved by the Scientific Archaeology Commission, which then recommended to the Department of Cultural Heritage, on 30 September 2016, that a two-day permit to conduct exploratory archaeological research at the site be granted. On 26 October 2016, a $2 \times 2 \times 1.5$ m excavation was completed at a location wherein both GPR and ERT data indicated the presence of subsurface anomalies, and possible disturbance of the natural soil and sediment layers, down to a depth of over two meters. Human skeletal remains were encountered in this excavation at a depth of 1.45 m below the surface, which then raised the question, are these the remains of Jacob Gens?

The original research design for phase one of this project focused on the geophysical component of the research and finding anomalies in the data that may indicate the location of Jacob Gens' grave. The original three research questions were as follows:

1. Will geophysical analysis detect disturbances in the natural stratigraphy at the 21 Subačiaus Street study site?
2. Will GPR and ERT detect reflection patterns at the same locations?
3. Do these reflection patterns indicate the location of the remains of Jacob Gens?

Since both GPR and ERT detected disturbances in the natural stratigraphy at the same location and at the same depth, four new research questions were posed related to phase two of the project, which focused on archaeological excavation and the interpretation of the results. The four additional research questions were as follows:

4. Will an archaeological excavation where GPR and ERT reflection patterns intersect uncover human remains?
5. Will the DNA analysis comparing the remains to Ada Ustjanauskas (Gens' daughter) indicate that the remains are Jacob Gens?
6. Will radiocarbon dating of the remains indicate a death date that correlates with 14 September 1943?
7. If the remains are not Jacob Gens, why is this body buried at this location?

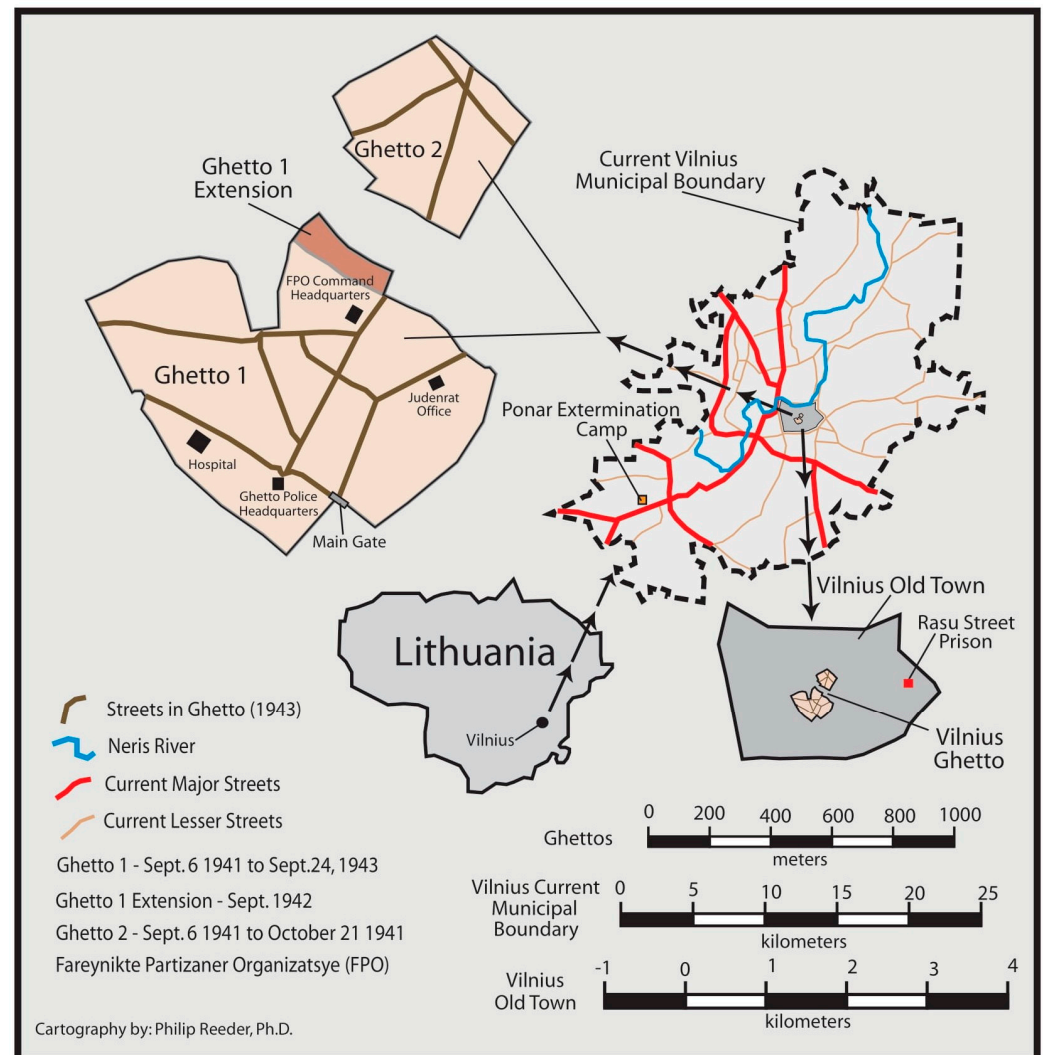


Figure 1. Location of Vilnius, Old Town Vilnius, the two Jewish Ghettos, Rasu Street Prison, and the Ponar (Ponary) Extermination Camp.

What follows is pertinent background information related to the Holocaust in Vilnius, Jacob Gens, and his role as, first, the head of the Ghetto Police Force and eventually the head of the Ghetto, and, finally, his murder and possible burial at the Rasu Street Prison. Background information related to the Church of the Ascension and Missionary Monastery, and the Church of the Heart of Jesus and the Visitation Monastery, which are both important places related to the eventual archaeological excavation at the Rasu Street Prison, is discussed in the following sections as well.

2. Background

In 1939, the population of Vilnius was approximately 200,000, including over 55,000 Jews ([Holocaust Encyclopedia 2025](#)). Additionally, 12,000 to 15,000 Jewish refugees from

German-occupied Poland found refuge in the city after Nazi Germany attacked Poland in September 1939. Soviet forces occupied Lithuania in June 1940, and, on 22 June 1941, Germany attacked the Soviet forces, occupying Vilnius on 24 June 1941. Around this time, Jacob Gens was appointed, by a Lithuania friend, the director of the Jewish Hospital in Vilnius. In July 1941, the German military administration issued a series of anti-Jewish decrees. During the same month, German Einsatzgruppen (mobile killing squads), aided by Lithuanian auxiliaries, killed 5000 Jewish men at Ponary (Ponar) forest, 13 km outside of Vilnius (see Figure 1). A German civilian administration took control of Vilnius in August 1941, and at the end of that month, the Germans killed another 3500 Jews at Ponar ([Holocaust Encyclopedia 2025](#)).

Jacob Gens (Figure 2) became a prominent figure in Holocaust-Era Vilnius. Anatol Fried, the former director of the community bank, who the Germans put in charge of assembling a Judenraete (Jewish Council) for the large Ghetto (Ghetto 1), knew Gens and appointed him as head of the Ghetto Police Force in early September 1941 ([Holocaust Encyclopedia 2025](#)). The Germans dissolved the Judenraete in July 1942 for incompetence and ineffectiveness, and Gens was appointed head of the Ghetto, but he still retained his title of Chief of the Ghetto Police Force (Association of Jews of Vilna and Vicinity in Israel 2012). The Germans normally used the Judenraete to select Jews for work details or to be taken to their death, but in the Vilnius Ghetto they used the Ghetto Police Force, and Gens in particular, to assist in operations where tens of thousands of Jews were transported to Ponar to be murdered and buried in mass graves ([Arad 1980](#)). Gens walked a dangerous and morally complicated path, serving the needs of the Germans who were focused on destroying Jewry, and at the same time running the Ghetto in such a way that he could save as many Jewish lives as possible ([Kassow 2024](#)). His actions made Gens a controversial figure both then and now ([Association of Jews of Vilna and Vicinity in Israel 2012](#)).



Figure 2. Photo of Lieutenant Jacob Gens, a graduate of the Lithuanian Military School (from the archive of V. Kavaliauskas).

On 13 September 1943, Gens was ordered to report to the Gestapo Headquarters the following day. He was urged to flee but chose to go, telling others that if he fled “thousands

of Jews will pay for it with their lives” ([Association of Jews of Vilna and Vicinity in Israel 2012](#)). The Germans had lost trust in Gens, and he was no longer of value to them. Gens was shot by Rolf Neugebauer, head of the Vilnius Gestapo, on 14 September 1943 at 6 PM. The Ghetto was then liquidated between 22–24 September 1943. Gens’ wife and daughter lived outside of the Ghetto, and upon hearing he was killed, they went into hiding, and eventually fled, spending time in Poland, West Germany, and Australia, before settling in the United States in 1953 ([Association of Jews of Vilna and Vicinity in Israel 2012](#)).

Further Details About Jacob Gens’ Death and Burial

Most accounts of Jacob Gens’ murder indicate that he was called to the Gestapo Headquarters, which was located on Mickevičiaus Street (now Gedimino Avenue), about 1.25 km northwest of the Ghetto, and murdered and buried in a garden at that location. Information contained in the testimony and letters of Ona Šimaitė is contrary to this account ([Šimaitė and Sukys 2007](#)). Ona Šimaitė was a Lithuanian librarian who was sympathetic to the plight of the Jews in Vilnius. She is best known for smuggling food, messages, and other contraband into the Vilnius Ghetto during the Holocaust, and she also smuggled people, news, and books out. Her activities were discovered, and she was arrested by the Gestapo and deported to Dachau Concentration Camp in Southeastern Germany ([KSL 2016](#)). In her testimony, she recounts (translated from Russian) the following information:

“Badges of the Jewish Police, jubilee badges of the Ghetto Police, a ghetto passport, and notes of Gens are in a box hidden in the grave on Rasos. There are three gardens there. The garden where his grave is located borders Subačiaus Street. At the very wall is the grave of the executed Pole named Kolyak. At his feet is the grave of the executed Gens, and at Gens’ feet is the grave of the executed Lithuanian. So that the location of Gens’ grave would be known, Chasia Vigdorčik placed a broken plate in that place.”

Her testimony clearly indicates that the garden where Gens was buried is in “Rasos”, which is the area where the Rasu Street Prison is located. This is further corroborated by the reference to the fact that the garden borders Subačiaus Street. Grigorijus Šuras, who was imprisoned in the Vilnius Ghetto, chronicled life in the Ghetto by writing down his thoughts and observations in notebooks as a legacy for future generations, in order to not forget this horrible part of human history. His notes were eventually published in the book “Notes. Chronicle of Vilnius Ghetto in 1941–1944” ([Šuras 1997](#)). Although Šuras notes that Gens was shot by Neugebauer in the Gestapo building, he provides insightful information about the “Rasos” area. He notes that there was a small prison for Aryans at that location. He also notes that Martin Weiss, who was the Nazi German official in charge of the Vilnius Ghetto and nearby Lukiškės Prison, and who was the commander of the Ypatingasis Būrys killing squad responsible for the Ponary massacres, lived in a Gestapo residence adjacent to the small prison. Contrary to Grigorijus Šuras, Yitzhak Arad, in his book “Ghetto in Flames: The Struggle and Destruction of the Jews in Vilnius in the Holocaust”, writes that Gens was indeed at the Gestapo building on 14 September 1943, but he was taken to “Rasos” and was shot and buried at that location ([Arad 1980](#)). In a 2015 personal communication between Zigmās Vitkus, from the Institute of Baltic Region History and Archaeology, and Irene Bernhard (Gens’ granddaughter), Vitkus states that “it is hard to say where Jacob Gens was killed, but it is very possible that his grave could be found in the territory of the former Visitation Monastery, somewhere near the old hedge ([Vitkus 2015](#)). As discussed later in this article, the former location of the Visitation Monastery, and the Rasu Street Prison, occupied the same geographic location at different points in time.

More information can be gleaned from research completed by Irene Bernhard regarding the murder and possible burial of her grandfather at the Rasu Street Prison location. In a May 2017 communication, she wrote the following:

“The prison is by the house where the Gestapo lived. It opened the day before they executed him. The heads of Gestapo were living by the prison for quite some time as it was a safe zone, easily defended, plus they got wonderful food from the gardens surrounding the nearby Heart of Jesus Church. It’s one of two buildings on the old Rasu Street. My feeling is it was the house on the right because the workers spoke of “going upstairs” to the second floor and I don’t believe the building on the left has a second floor.”

Since World War II, street patterns have changed around the Rasu Street Prison (Figure 3). When Nazi Germany occupied Vilnius, Rasu Street (street is *gatve* in Lithuanian) extended to Subačiaus Street, and the building that may have served as the residence for the Gestapo and Martin Weiss fronted this section of Rasu Street (Šuras 1997). After World War II, Ziuproniu Street was created, which truncated Rasu Street, reducing it to essentially an alley that still connects with Subačiaus Street. Hence, the evidence provided by Grigorijus Šuras that a small prison for Aryans and a Gestapo residence where Martin Weiss lived existed at this location, which is corroborated by Yitzhak Arad and information uncovered by Irene Bernhard, bodes well for the fact that the Rasu Street Prison is indeed the location where Jacob Gens was murdered and buried.

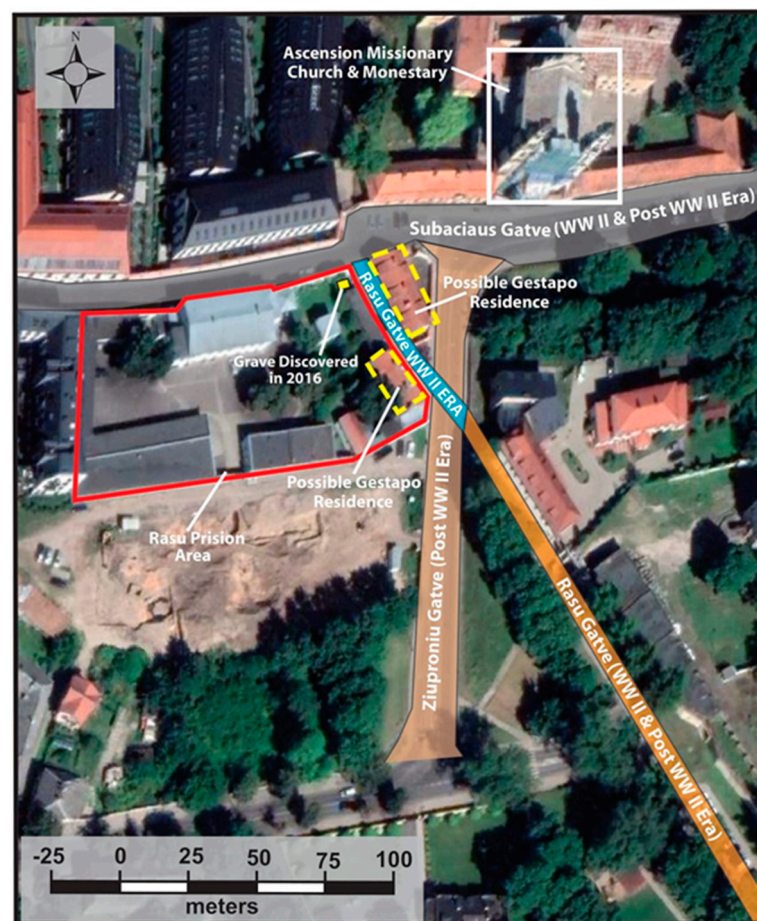


Figure 3. The location of the Rasu Street Prison in relation to Subačiaus Street, Old Rasu Street, the possible Gestapo residences, and the site where human skeletal remains were unearthed in 2016.

Jacob Gens' daughter Ada returned to Vilnius after the war to search for the location where her father was buried. Information related to this visit was recounted for us as part of a personal communication with Irene Bernhard, Ada's daughter. A point of possible confusion about the burial location is that a cemetery exists in Vilnius named the Rasos Cemetery. It is in the Rasos district, approximately 800 m southeast of the Rasu Street Prison (Figure 4). Covering 10.8 hectares, it is the oldest cemetery in Vilnius, with the first burial dating back to 1801 ([Neakvaizdinis Vilnius 2025](#)). According to Irene Bernhard ([Bernhard 2017](#)),

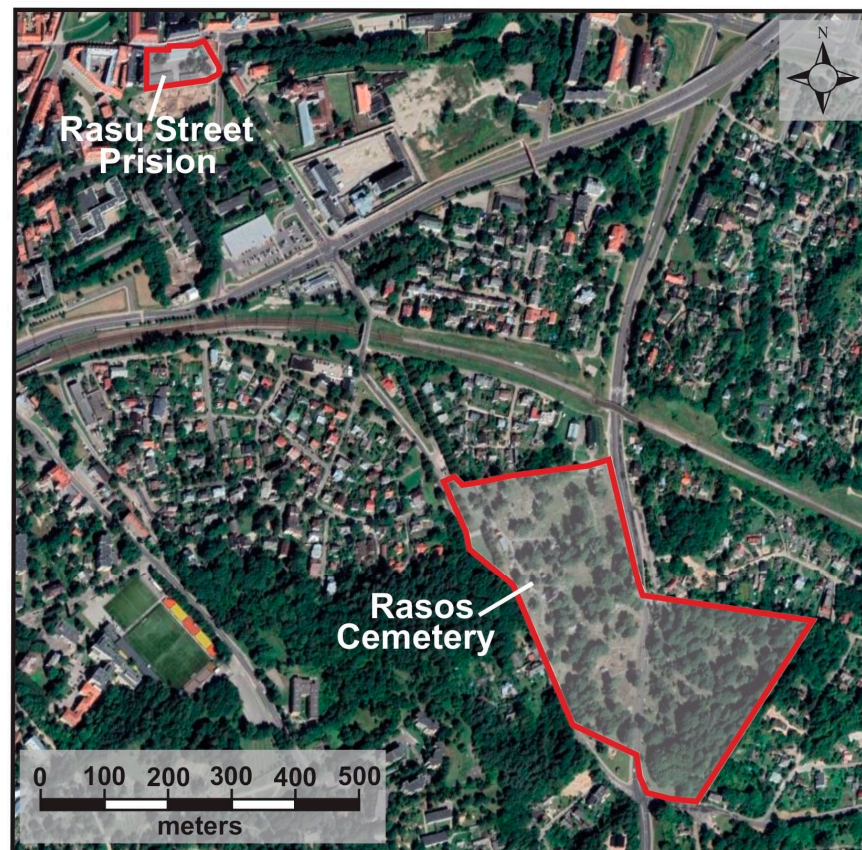


Figure 4. The spatial relationship between the location of the Rasu Street Prison and the Rasos Cemetery.

During her visits survivors told my mother that her father was buried (in Polish) “in Rasu.” She thought they were referring to the Rasu (Rasos) Cemetery at the opposite end of the city on Rasu Street. She spoke with the priests and workers there twice, once in 1945 and then again in the 1970s, and they assured her that if her father had been buried there they would have known. In addition, it’s a Christian cemetery, so they would have been twice as aware if the Jewish head of the Ghetto had been brought there. Everybody—grave diggers, priests, grounds men swore he wasn’t buried there. It was only with the release of Ona Šimaitė’s testimony from the Soviet archives ([Šimaitė and Sukys 2007](#)) that she talked about his being buried at Rasu Prison in the garden, along with two other bodies. My mother had never heard of Rasu Prison because it was only opened the day before her father was executed, and she went into hiding that same day outside of Vilnius with her mother.

This clarification between Rasu Street Prison and Rasos Cemetery, along with important information provided by [Šuras \(1997\)](#), [Arad \(1980\)](#), [Vitkus \(2015\)](#), and [Bernhard](#)

(2017), led us to believe that the Rasu Street Prison was the most likely location to find the remains of Jacob Gens. As previously noted, permits were obtained from the Lithuanian government, and based on geophysical data collected at the site in June 2016, an excavation was completed on 26 October 2016. The materials and methods for both the June and October research are presented below.

3. Materials and Methods

The four methods used for onsite data collection were ground penetrating radar (GPR), electrical resistivity tomography (ERT), archaeological excavation, and onsite sample collection. The literature sources, Holocaust survivor testimonies, and personal communications with Jacob Gens' living family members, especially his daughter and granddaughter, were valuable sources of information regarding his possible burial location, as well.

Figure 5 presents a schematic diagram/map of the Rasu Street Prison, showing its post-World War II geographic location at the corner of Subačiaus and Ziuproniu Streets. Within the boundaries of the current training facility for the Lithuania Prison Service (Rasu Street Prison), the location of the GPR grid and four ERT transect lines are presented. Additionally, the location where ERT transect line 2 intersects with a significant GPR anomaly, marked by a cutout of a portion of the GPR slice data, is included. It was at this location that the 2 × 2 m excavation was completed.

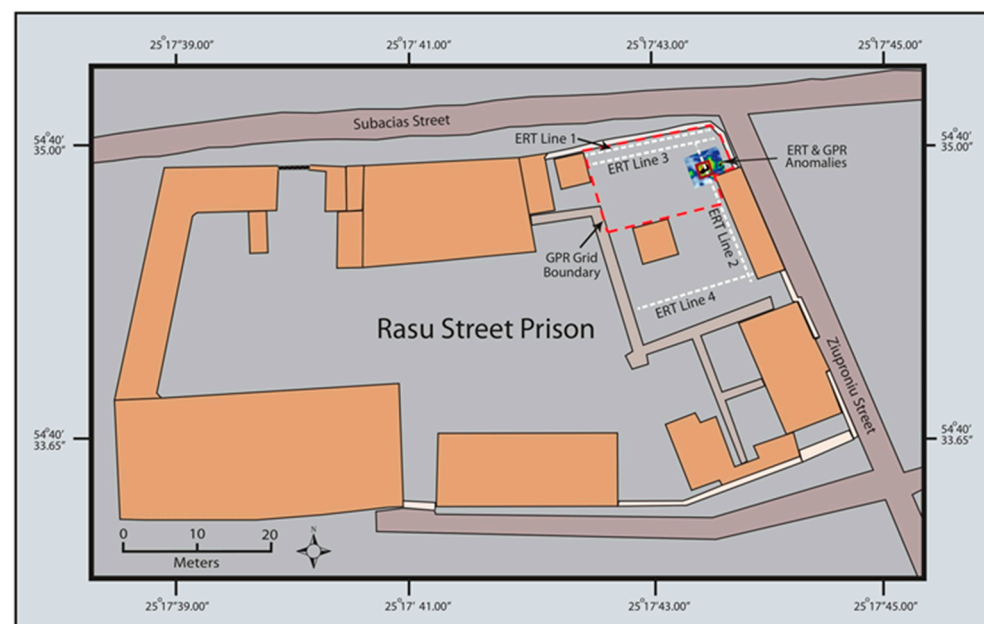


Figure 5. Map depicting the Rasu Street Prison and the areas where geophysical data were collected and the archaeological excavation was completed.

3.1. GPR Data Collection and Processing

The GPR technique used in this study is based on the propagation and reflection of pulsed high frequency electromagnetic (EM) energy (Lombardi et al. 2022; Luo et al. 2019). This field technique, which provides near-surface, high-resolution, and near-continuous profiles for investigation of shallow subsurface features, is being used more frequently at archaeological sites because of the availability of portable, robust digital GPR systems (Bristow and Jol 2003; Conyers 2015; Zhao et al. 2013; Manataki et al. 2021). Publications resulting from past investigations by the researchers involved in this project, and other researchers, have shown that GPR is a valuable, efficient, and effective research methodology (Jol 1995, 2009; Smith and Jol 1995). The GPR acquisition system Sensors and Software pulseEKKO™ was used for this project (Sensors and Software 2024). GPR profiles were

collected with 450 Megahertz (MHz) antennae. The antennae separation was 0.5 m, and to provide good horizontal resolution, a step size of 0.02 m was odometer-triggered. To aid in the data collection time, a carrier transport system was used so the system could be easily dragged across the land surface (Figure 6). Each trace was vertically stacked with an appropriate sampling rate. The digital profiles were downloaded, saved to an external hard drive, processed, and plotted using pulseEKKO, GFP Edit, and EKKO_Project software packages (EKKO_Project™ GPR Software 2024). Basic processing included automatic gain control (AGC), signal saturation correction, trace stacking (horizontal averaging), and point stacking (running average). The two-way travel time window used for each gridline was 100 ns and the near-surface velocity of 10 cm/ns was estimated for each gridline in this study using the hyperbolic velocity calibration tool within the EKKO_Project software package. Multiple hyperbolic features within each of the gridlines were used to estimate the 10 cm/ns near-surface velocity measurement. The profiles were corrected for topography using a Topcon Total Station and/or a Topcon Laser Leveler. The application of radar stratigraphic analysis (distinct signature patterns) on the collected data provides the framework to investigate lateral and vertical geometry and stratification of archaeological features (Economou et al. 2021; Lanzarone and Bigman 2018).

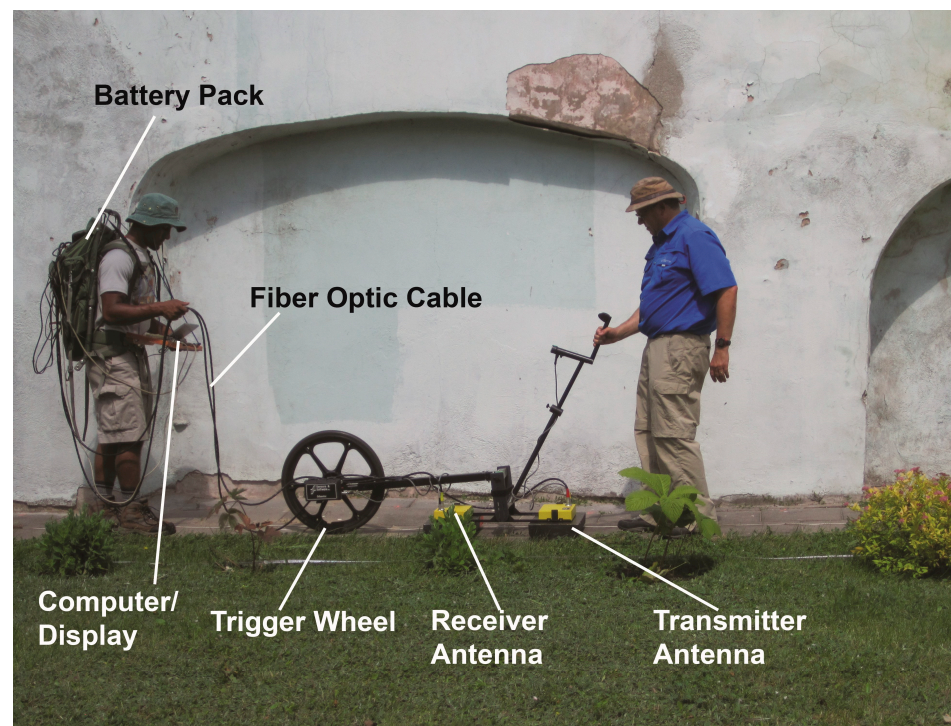


Figure 6. Data collection using a Sensors and Software pulseEKKO™ GPR data acquisition system (photo by Philip Reeder).

3.2. ERT Data Collection and Processing

ERT is a technique for mapping the distribution of subsurface electrical resistivity, or inverse conductivity, in a cross-sectional format (Fischer et al. 2016; Arato et al. 2015; Cardarelli and De Donno 2019). As part of the ERT data collection process, resistivity data are collected through a linear array of electrodes coupled to a direct current (DC) resistivity transmitter, receiver, and electronic switching relays. The spacing between electrodes controls the horizontal and vertical resolution of the data, with smaller spacing resulting in higher horizontal and vertical resolution. The array's length controls the investigation depth. The relationship between them is the more extended the electrode array, the greater the investigation depth. Data collection is sequential and automated, taking advantage

of all possible combinations of current injection and potential measurement electrodes (Papadopoulos et al. 2007). Downloaded data are processed and analyzed on a laptop computer, often in the field. Then, the data are inverted (i.e., modeled) using a two-dimensional (2D) finite difference or a finite element inversion routine using RES2DINV tomographic “inversion” software, which iteratively calculates the 2D (or cross-sectional) model of the ground that best fits the data that have been measured (RES2D 2025). The final 2D cross-section, known as a “true” geoelectric section, plots resistivity (in Ohm-m) or conductivity (in milliSiemens per meters [mS/m]) versus depth (Bièvre et al. 2018; Fang et al. 2023). All ERT data were acquired for this research using a minimum electrode spacing of 0.125 m, enabling a depth of investigation of 4 m below the ground surface (mbgs). These surveys utilized an ABEM Terrameter LS (Sundbyberg, Sweden) resistivity system, and the data were acquired using an expanded gradient acquisition sequence (McClymont et al. 2021, 2024; Reeder et al. 2023, 2024). Figure 7 depicts the ERT data acquisition system used for this research.

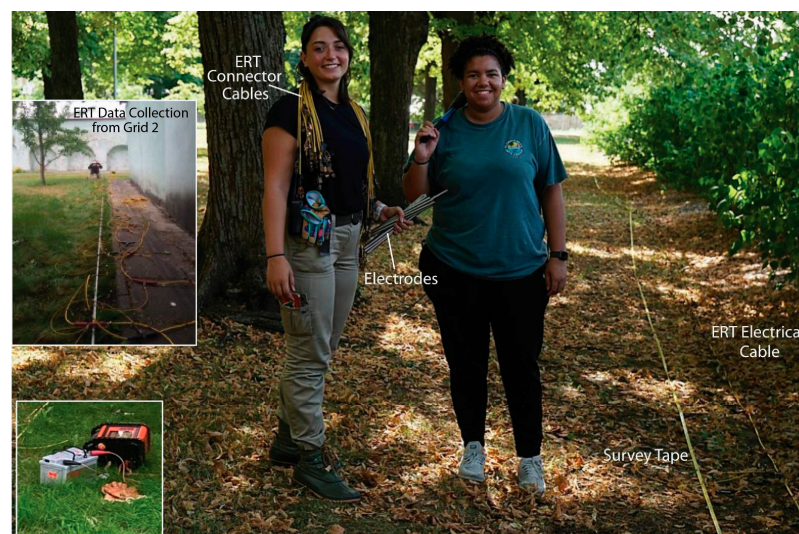


Figure 7. Electrode array and data collection using a ABEM Terrameter LS resistivity data acquisition system (photos by Alastair McClymont).

A 12 V battery powered the transmitter within the ERT system. The electrodes inserted into the ground are connected to the transmitter unit via a multicore cable. Individual measurements are then obtained by sending an electrical current from the 12 V battery to a pair of injection electrodes, and the resulting voltage is measured on a pair of separate reception electrodes. The four ERT profiles acquired as part of this study used an expanded gradient acquisition sequence to optimize the lateral and vertical resolution of the desired subsurface target (Jacob Gens’ grave). Multiple-gradient arrays of the type used in this research are more efficient to collect with multichannel systems because they have a lower sensitivity to noise than a dipole–dipole arrays sequence (McClymont et al. 2021, 2024; Reeder et al. 2023, 2024). Data processing included the removal of any negative values and apparent outliers. The ERT methods used in this research yielded a cross-section showing changes in the soil resistivity. All ERT inversions were calculated using L2-norm smoothness constraints, and model cell widths were set to equal half (0.0625 m) of the minimum electrode spacing (0.125 m). For each inverted profile, convergence was reached after no more than five iterations, and root-mean-square errors were 3–8% (McClymont et al. 2021, 2024; Reeder et al. 2023, 2024).

IP (electrically-induced polarization) is a second electrical imaging survey collected simultaneously and with the same equipment (Ali et al. 2024; Shao et al. 2021). While

resistivity surveys the subsurface in terms of its unit volume resistance to the passage of electrical current, IP images the subsurface in terms of its chargeability, which is loosely analogous to the ability of the subsurface to store an electrical charge (Bala et al. 2024). Resistivity measurements take place while a current passes through the subsurface. During IP measurement, no current is actively transmitted through the subsurface materials. Chargeability, measured in milliseconds (msec), represents the area under the voltage curve that rapidly decays after current transmission ceases (Tso et al. 2017). A chargeability section can be inverted (i.e., modeled) from the acquired raw IP data. Generally, sand and silt will have zero chargeability, and clay may have a very low, but measurable, chargeability of a few msec. Metal objects in the subsurface can have a chargeability of tens, hundreds, or thousands of msec, depending on the size, surface area, and burial depth (Martínez et al. 2019). Hence, an IP survey can detect metal objects buried in the subsurface along the four ERT lines, where data were collected in this study.

3.3. Archaeological Excavation Methodology

Based on the results of the geophysical surveys, a location for excavation was selected where both GPR and ERT reflection patterns were present. A two-day permit was obtained from the Department of Cultural Heritage to excavate a 2×2 m square by non-mechanical means. Hand excavation entails digging through layers of soil with a trowel or a shovel and carefully recording the artifacts found in each layer (Cook 2023). The turf layer was removed using a border spade (Figure 8), and soil and other materials encountered during excavation were removed at 5 cm intervals. Information regarding the soil's physical characteristics and any cultural alterations were noted; the depth and location data for any artifacts encountered were recorded; and artifacts were collected, cataloged, and stored for further analysis.



Figure 8. (A) The 2×2 m excavation that was completed at the Rasu Street Prison on 26 October 2016 and (B) the locational context of the excavation (in the foreground) and the possible Gestapo residence (red roof) and the Ascension Missionary Church in the background (photo (A) by Mantas Daubaras; photo (B) by Irene Bernhard).

3.4. Onsite Sample Collection

One molar tooth was collected from the upper mandible and one from the lower mandible from the skull that was exposed in the archaeological excavation. They were collected by Mantas Daubaras (while wearing surgical gloves) by carefully removing each tooth from the mandible (Figure 9). After collection, the teeth were put into separate paper envelopes and the envelopes were sealed. Dr. Philip Reeder then transported the teeth to the DNA Laboratory at Duquesne University in Pittsburgh, PA, USA. The teeth were stored in the lab until DNA analysis began in November 2016.



Figure 9. Collection of a molar tooth from the human skull that was exposed by the October 2016 excavation (photo by Richard Freund).

3.4.1. Laboratory Analysis of Tooth Samples

The genotyping was performed with Short Tandem Repeat (STR) genetic markers, which are used to compare specific loci on DNA from two or more samples ([Watherston and Ward 2023](#)). Repeating microsatellites were counted to establish the relationship between the two samples. One sample was derived via a mouth swab from Ada Ustjanauskas (hereafter, sample #1) and the other sample (hereafter, sample #2) was extracted from one of the teeth collected at the Rasu Street Prison. The test kit used was the Promega Fusion 5C ([Promega 2025](#)). This PowerPlex® Fusion System is a 24-locus multiplex for human identification applications that uses a 5-color system, which allows co-amplification and fluorescent detection of the 13 core CODIS (US) loci (CSF1PO, FGA, TH01, TPOX, vWA, D3S1358, D5S818, D7S820, D8S1179, D13S317, D16S539, D18S51 and D21S11), the 12 core European Standard Set loci (TH01, vWA, FGA, D21S11, D3S1358, D8S1179, D18S51, D10S1248, D22S1045, D2S441, D1S1656 and D12S391), and Amelogenin for gender determination. In addition, the male-specific DYS391 locus is included to identify null Y allele results for Amelogenin ([Promega 2025](#)). The Penta D, Penta E, D2S1338, and D19S433 loci are included to increase discrimination and allow for searching of databases that include profiles with these popular loci. The extended panels of STR markers noted above are intended to satisfy both CODIS and ESS recommendations ([Verzeletti et al. 2013](#)). The samples were run on an Applied Biosystems Model 3130 Genetic Analyzer with 6 dye capability ([Applied Biosystems 2025](#)), with the analysis performed using GeneMarker software from Soft Genetics ([Soft Genetics 2025](#)).

3.4.2. Radiocarbon Analysis of Tooth Sample

The tooth was dated using radiocarbon analysis at the University of Georgia Center for Applied Isotope Studies (CAIS-UGA) on 6 July 2017. The tooth was cleaned using a wire brush, and washed using an ultrasonic bath. After cleaning, the dried tooth was gently crushed into small fragments. The crushed tooth was treated with diluted 1N acetic acid to remove the surface-absorbed and secondary carbonates. Periodic evacuation ensured that evolved carbon dioxide was removed from the interior of the sample fragments, and that fresh acid was allowed to reach even the interior micro-surfaces. The chemically cleaned sample was then reacted under vacuum with 1N HCl to dissolve the bone mineral and release carbon dioxide from bioapatite. The residue was filtered, rinsed with deionized water, and, under a slightly acid condition (pH = 3), heated at 80 °C for 6 h to dissolve

collagen and leave humic substances in the precipitate (University of Georgia Center for Applied Isotope Studies 2025).

The collagen solution is then filtered to isolate pure collagen, and is dried out. The dried collagen was combusted at 575 °C in an evacuated/sealed Pyrex ampoule in the presence of CuO. The resulting carbon dioxide was cryogenically purified from the other reaction products and catalytically converted to graphite (Vogel et al. 1984). Graphite $^{14}\text{C}/^{13}\text{C}$ ratios were measured using the CAIS 0.5 MeV accelerator mass spectrometer. The sample ratios were compared to the ratio measured from the Oxalic Acid I (NBS SRM 4990) (Wacker et al. 2019). The sample $^{13}\text{C}/^{12}\text{C}$ ratios were measured separately using a stable isotope ratio mass spectrometer and expressed as $\delta^{13}\text{C}$ with respect to PDB, with an error of less than 0.1‰. The quoted uncalibrated dates have been given in radiocarbon years before 1950 (years BP), using the ^{14}C half-life of 5568 years. The error is quoted as one standard deviation and reflects both statistical and experimental errors. The date has been corrected for isotope fractionation.

4. Results and Discussion

4.1. GPR and ERT Data

Data for ERT transect lines 1, 3, and 4 are not reported and discussed because, although subsurface anomalies were present, the anomalies did not coincide with any GPR anomalies. ERT transect line 2, which was 19 m long and aligned in a north/south direction, contained resistivity and IP anomalies between 16 and 18 m at the north end of the line (Figure 10). Along this section of the transect line, the more resistive near-surface materials to the north and south (above 18 m and below 16 m) are replaced by less-resistive materials from 16 to 18 m along the line. This occurs, in one possible scenario, because a hole was created and then refilled in this area. These actions would mix the soils and change the water holding capacity, thus affecting soil resistivity. The IP anomaly, which indicates the presence of metal in the area, may also owe its origin to human disturbance. Prior to completing the archaeological excavation at this location (which is discussed in the next section of this article), it was unknown if the changes in resistivity and IP were caused by modern, historic, or some combination of anthropogenic disturbances.

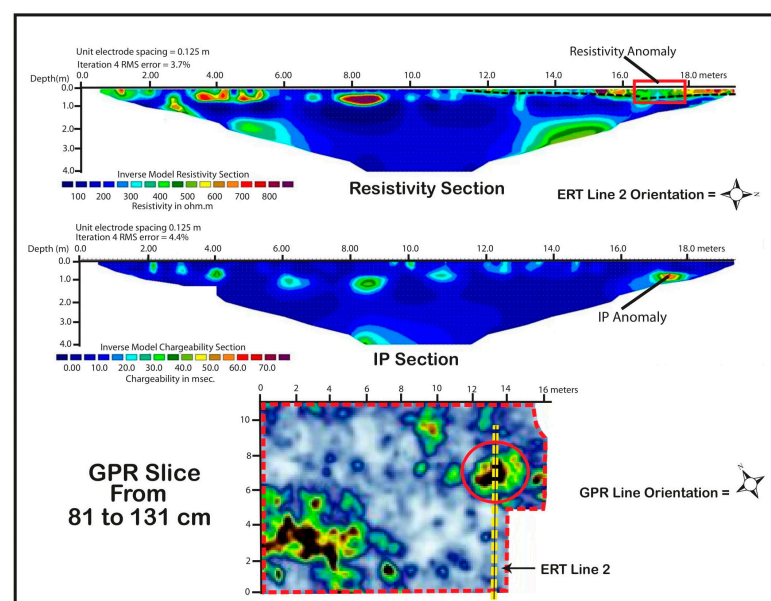


Figure 10. ERT line 2 resistivity and IP profiles, and slice (plan) view plot of GPR data collected in the northeast corner of the Rasu Street Prison site, with the excavation location indicated by the red circle.

The location of the ERT anomaly from 16 to 18 m along the transect line coincides with a GPR anomaly that was located between 12 and 14 m along the x-axis and 6 and 8 m along the y-axis of the GPR grid. This intersection was determined to be the optimal location for the 2×2 m excavation that was intended to expose Jacob Gens' remains. Although other resistivity and IP anomalies were present along ERT line 2, they did not coincide with any other GPR anomalies.

4.2. Archaeological Excavation

On 26 October 2016, a $2 \times 2 \times 1.5$ m excavation was completed at a location that both the GPR and ERT data indicated as a possible disturbance of the natural soil and sediment layers, down to a depth of over two meters. What follows is summary of the archaeological log:

- Upper 0.1 m: dark gray loamy soil overlain by turf (see Figure 8A).
- 0.1 to 0.7 m: dark gray loamy disturbed soil with abundant modern debris and construction waste in the north section of the excavation.
- In the central part of the excavation square, in the layer of disturbed soil at a depth of 0.2 m, is a 0.24 m-wide section of a brick wall, oriented in an east to west direction, made of yellow clay bricks that are $12 \times 6 \times 20$ cm in size. The wall is two rows of bricks wide, and fifteen rows of bricks in exposed height (Figure 11). It is estimated that this wall dates to the late 18th or early 19th century.
- The quadrant of the excavation on the north side of the wall was excavated down to a depth of 0.9 m. Because the area contained abundant modern debris and construction waste, it was not excavated any deeper.
- On the southside of the wall, at a depth 0.7 m, a black loam cultural layer was reached, with artifactual finds being from the late 16th century or early 17th century. The finds included a polychrome pot fragment, and fragments of ringed clay vessels. This black loam cultural layer was excavated to a depth of 1.4 m, where a light brown, sandy clay subsoil was exposed.
- Below 1.4 m, in the south wall of the excavation, skeletal remains were encountered that consisted of an intact skull and upper torso that included the shoulders, upper arms, and chest down to the breastbone. The linear extent from the breastbone to the top of the skull was 0.4 m, and the width of the remains that were exposed was 0.5 m (Figures 11 and 12).
- Field examination of the remains indicated no external signs of trauma, and the teeth were in poor condition, showing signs of abscesses, severe wear, and antemortem tooth loss.
- After collection of two molar teeth for laboratory analysis, the remains were left in situ, the excavation was refilled, and the turf was replaced on top of the excavated area.

Because the human remains that were uncovered only partially fell within the 2×2 m area mandated by the permit, it was not possible to expose more of the remains. In order to extend the excavation, the Lithuania Prison Service, which falls under the Ministry of Justice, needed to request an amended permit from the Department of Cultural Heritage, which would have taken, at minimum, several weeks for approval, which was well beyond the time frame for this field research.

Ona Šimaitė, in her testimony, noted that there were three gardens in the place where Gens was buried, and where his grave is located borders Subačiaus Street. The location where we excavated matches this description. Further, she stated that “at the wall is the grave of the executed Pole, and at his feet is the grave of the executed Gens, and at Gens' feet is the grave of the executed Lithuanian”. A wall was discovered adjacent to the uncovered skeletal remains, adding credence to the assertion that the exposed remains were those of

Jacob Gens. The information uncovered by Irene Bernhard that he was killed at “Rasos”, a place that was an Aryan Prison adjacent to the house where Gestapo officers lived, also points to the fact that the excavation is in the area where he was potentially buried.



Figure 11. The 2 × 2 m excavation with the remains of a wall and skeletal remains exposed (photo by Mantas Daubaras).



Figure 12. Close-up of the skeletal remains (photo by Mantas Daubaras).

Interpretation of the excavation results points to several factors that indicate that the remains are not those of Jacob Gens. This assertion is based on several findings, including the fact that the skeletal remains were found under a cultural layer estimated to be from the 17th century, although it is possible that the grave was excavated through this layer. Additionally, Ada Ustjanauskas, Gens’ daughter, recalled that his oral hygiene was good and that he had one gold tooth, unlike the individual unearthed in the excavation. It is within the realm of possibility that the tooth was extracted prior to his burial, but this seems unlikely.

4.3. Laboratory Analysis: DNA

To unequivocally determine if the remains discovered at the Rasu Street Prison are or are not those of Jacob Gens, a DNA analysis was completed on one of the teeth collected from the skeletal remains, and comparative DNA was collected, via a cheek swab, from Ada Ustjanauskas, Gens' daughter. Additionally, the other collected tooth was dated using radiocarbon dating techniques.

The type of DNA test used in this study uses 24 specific locations, each of which are referred to as a locus, to identify unique genetic variations and create a detailed DNA profile for each sample (Higgins and Austin 2013). By examining 24 different loci on the DNA, similarities and differences can be quantified, and the genetic relationship between the samples can be determined with a high degree of accuracy (International Biosciences 2025). Humans have two alleles per locus, one inherited from each parent. An obligate paternal allele is an allele that a child inherits from their father. A comparison of the alleles of a child and their suspected father at multiple genetic markers, in this case 24, will prove or disprove a direct blood relationship (Kalinowski 2002).

A summary of the results of the DNA analysis is presented in Figure 13. There are two columns labeled tooth and two columns labeled Ada because each column presents data for one of the two alleles that are present for each of the 24 loci listed. If the child inherits one allele at each marker that matches one of the father's alleles at the same marker, it is a strong indication, if the 22 non-sex markers match, that the father is the biological parent. The numbers associated with each allele represent the size of the DNA fragment at that specific genetic marker. A match is when one of the numbers from one of the alleles for one sample and for a particular locus exactly matches one of the numbers from the other sample for that same locus (International Biosciences 2025).

Run Fusion 5C					
File Name	Tooth	Tooth	Ada	Ada	
Loci					Notes
AMEL <i>sex marker</i>	X	Y	X	X	
D3S1358	14	15	15	17	
D1S1656	12	14	15	16	1 off
D2S441	11		11	14	
D10S1248	13	15	14		1 off
D13S317	8	11	12		1 off
Penta E	7	12	7	14	
D16S539	12		8	12	
D18S51	12	14	13	16	1 off
D2S1338	18	23	24	25	1 off
CSF1PO	13		10	11	2 off
Penta D	11	12	9	13	1 off
TH01	6	9	6	9.3	
vWA	14	15	15	16	
D21S11	29	32.2	28	30	1 off
D7S820	8	10	8	10	
D5S818	11	13	11	12	
TPOX	8	11	8		
DYS391 <i>male sex marker</i>	9		NA	NA	
D8S1179	11	13	10	13	
D12S391	19	21	18	19	
D19S433	13	14	13		
FGA	19	22	21	23	1 off
D22S1045	15		11	12	3 off

Notes
24 Loci Present (minus 2 sex markers = 22 loci)
2 Sex Marker Loci (AMEL & DYS391)
12/22 Loci Exact Match
8/22 Loci off by 1
1/22 Loci off by 2
1/22 Loci off by 3

Figure 13. DNA comparison between samples collected from the tooth and Gens' daughter Ada.

Of the twenty-four loci present in the table in Figure 13, two of these loci (AMEL and DYS391) are sex markers. AMEL indicates that the Ada sample came from a female and the tooth sample came from a male. The fact that the tooth came from a male is further corroborated by DYS391 on Figure 13, which is a male sex marker locus. Of the remaining

twenty-two loci, twelve are an exact match between the samples, eight are off by one allele, one is off by two, and one is off by three.

Since twelve loci are an exact match, that leaves ten loci that are not, and of these ten, eight are off by one unit. There are several reasons why the alleles may not be an exact match. The most prominent is that the individuals are not related. Another possibility is that degradation of the DNA in the tooth affected the results. DNA is generally a very stable molecule, and it can remain unchanged for prolonged periods of time, provided there is no nuclease contamination. Nuclease contamination can result from microbial action, wherein nuclease (an enzyme responsible for breaking the bonds between nucleotides in nucleic acids) degrades the nucleotides, which are the small subunits that make up large nucleic acids, such as DNA and RNA (Bogas et al. 2009). If the tooth sample is indeed from Jacob Gens, it is from the World War II era, and was very likely exposed to microbes and cycles of wetting and drying in the soil for over 70 years.

A representative from the Duquesne University DNA Laboratory contacted Bode Cellmark Forensics, which is a company that serves the law enforcement and identification markets and provides state-of-the-art human DNA analysis, and the Texas Department of Public Safety's Unidentified Persons and DNA Unit, to discuss the results of these analyses (Personal Communication 2016). All agree that the results indicate that the individuals from which the samples were obtained are not related. Therefore, the skeletal remains discovered at the Rasu Street Prison location are not those of Jacob Gens, which then raises the following questions: whose remains were discovered, and why are they buried at this location?

4.4. Laboratory Analysis: Radiocarbon Dating

To gain a better understanding of the age of the skeletal remains, one of the collected teeth was sent to the University of Georgia Center for Applied Isotope Studies (CAIS-UGA) for radiocarbon (^{14}C) analysis. The results of this analysis are presented in Figure 14. Based on the standard methods used by the CAIS-UGA, both bioapatite and collagen extracted from the tooth were dated. Since the early trials in the 50s, the reliability of ^{14}C dates obtained from purified bioapatite has been questioned (Zazzo and Saliège 2011). A compilation of radiocarbon dates published in radiocarbon over the period of 1959–2009 shows that less than 6% of all the bone (tooth) dates were performed on purified bioapatite. Even though the use of bioapatite for dating is less common, the results are reported in Figure 14. The grave was directly C14-dated twice from the same sample to the 17th–18th century AD (180 ± 25 BP (UGAMS-29823a)), 1745–1795 calAD (95.4%) for bioapatite, and 240 ± 25 BP (UGAMS-29823c) 1685–1735 calAD (95.4%) for collagen (Figure 14) (Brock et al. 2013).

UGAMS#	Sample ID	Material	$\delta^{13}\text{C}_{\text{‰}}$	^{14}C age years, BP	$\pm$	pMC	$\pm$
29823a	JG-1	bioapatite	-12.0	180	25	97.83	0.29
29823c		collagen	-21.0	240	25	97.07	0.28

Figure 14. Radiocarbon dates for a tooth collected from the excavation at the Rasu Street Prison.

4.5. Historical Context Related to the Skeletal Remains

The skeletal remains were found under a cultural layer from the 17th century. The archaeological finds from just above the skeletal remains included polychrome pot and ringed clay vessel fragments. To understand this chronology in relation to the collagen radiocarbon date, we consider the possibility that the burial process excavated through this cultural layer and interred the remains at its base.

At the beginning of the 17th century, the Sanguška family ruled the area surrounding where the training facility for the Lithuanian Prison Service (formerly Rasu Street Prison) is now located. In 1640, Jeronimas Sanguška, a Jesuit priest, started building a Renaissance

palace which was completed in 1650 (Paupys 2025). This palace became part of the Vilnius Missionary Monastery, which included the Ascension Missionary Church (Figure 15), where construction began in 1695. The church was consecrated in 1698, and reconstructed and reconsecrated in 1730 after several fires (Ozdemir and Drury 2017).

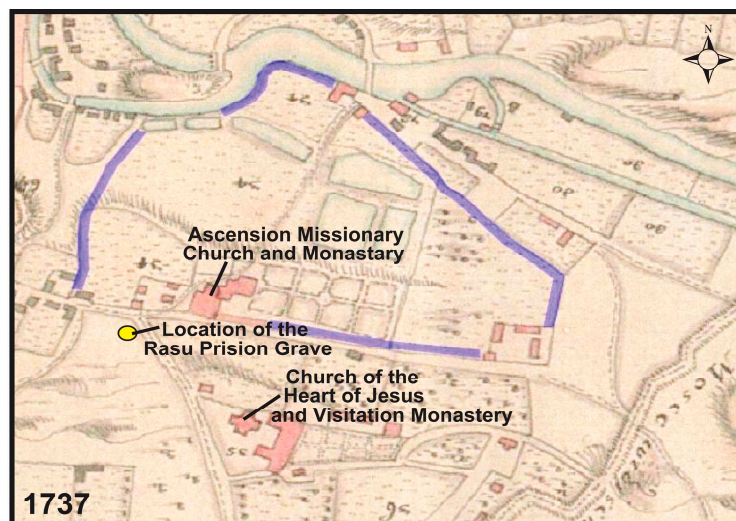


Figure 15. Vilnius city plan by J. G. M. von Fürstenhoff, dated 1737, with the boundary of the church and monastery grounds indicated by the purple line (Ozdemir and Drury 2017).

Figure 15 also shows the location of the Visitation Monastery and the Church of the Heart of Jesus. The Missionary and Visitation Monasteries occupy adjacent properties, and over the years some landholdings changed hands several times between monasteries. At the end of the 17th century, numbering of the city of Vilnius's land holdings was completed, and at that time the Visitation Monastery had holdings south of Subačiaus Street (Ministry of Culture 1981). The Visitation Sisters were established in Vilnius as an initiative of Bishop K. Bžostovskis in 1694 (Pamatyk Lietuvoje 2025). Construction of the Monastery ensemble for the Visitation Sisters began soon after, and in 1717, a temporary stone chapel was constructed. Construction of the Church of the Heart of Jesus began in 1729, and the church was consecrated on 26 August 1756.

In 1705, a local landowner with the last name Paulovičius donated a property at the corner of Subačiaus and Rasu Streets to the Missionary Monastery, but the magistrate did not approve this transaction, and the plot was then donated to the Visitation Monastery (Ministry of Culture 1981). This plot of land is now occupied by the Training Center for the Lithuania Prison Service at 21 Subačiaus Street. The lot where the grave was discovered, at the former Rasu Prison Site, was depicted as a plot of undeveloped land on von Fürstenhoff's 1737 map of the area (Figure 15).

A city plan for Vilnius was created in 1808 (Figure 16A). The Ascension Missionary Church and Monastery, and the Church of the Heart of Jesus and Visitation Monastery, are both present on this map. A new addition to the map, compared to the 1737 map, is the walled area at the corner of Rasu and Subačiaus Streets (Ministry of Culture 1981). In the 1981 Ministry of Culture Monument Conservation Institute's report 2697 on the buildings in Vilnius at number 21 Subačiaus Street, it is noted that there was a cemetery established in the place where Paulovičius donated the plot of land to the Visitation Monastery in 1705. It is further noted that this place was for the burial of the dead poor (Ministry of Culture 1981). This report notes that by the end of the 18th, or beginning of the 19th, century, the cemetery was completely abolished, and in 1834 there was already a garden planted in this place. This is evident in the 1870 map of the area (Figure 16B), which shows the remains of

some of the walls that surrounded the cemetery; however, the land is now occupied by a garden, or perhaps an orchard, and any memory of the former cemetery is probably long forgotten.

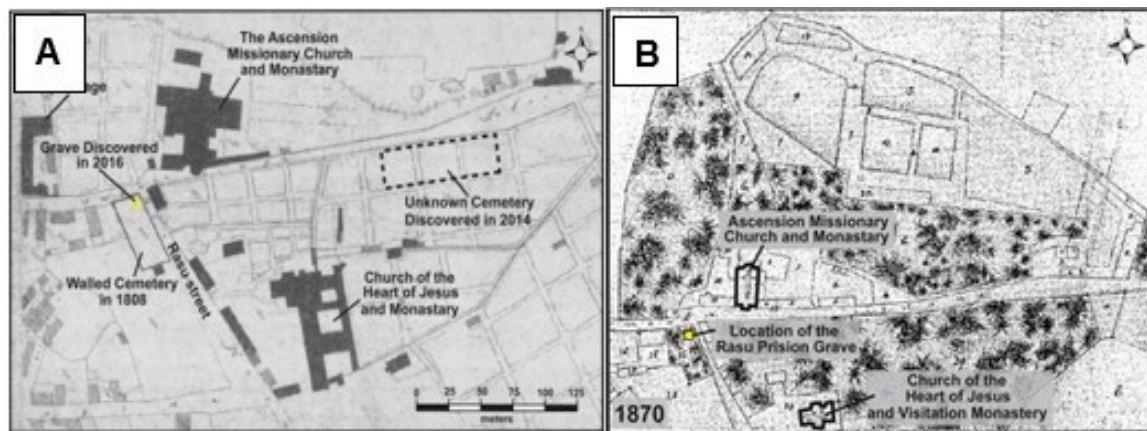


Figure 16. Part of a city plan created for Vilnius in 1808 (A) (Ministry of Culture 1981) and an 1870 map of the monastery estate (B) (Ozdemir and Drury 2017).

Like the accidental discovery of the forgotten cemetery at the Rasu Street Prison site in 2016, in 2014, an unknown 17th century cemetery was discovered at 41 Subačiaus Street, just 300 m to the east (Figure 16A). A total area of 284 m² was excavated in 2014 and 2015 at this site, and 126 graves, which contained 151 individuals, were discovered. Impending construction of a soccer pitch, playground, and gymnasium for the American International School of Vilnius on this site was the impetus behind completing this excavation. This burial site is not mentioned in any of the historical literature for this area, but the number of bodies indicates that there was a functional cemetery at this location for some time (Kozakaite and Miliauskienė 2019). The conclusions drawn from the bioanthropological research completed at this forgotten cemetery link it to the middle 17th century, when Vilnius was experiencing famine associated with a plague epidemic, and the 1655 invasion of Russian and Cossack forces (the Battle of Vilnius). The siege lasted for six years, and during that time, the city was destroyed and the population decreased by approximately 50% due to killings, fires, famine, and plague (Šapoka 2013).

Vilnius experienced another plague epidemic from 1709–1713 during the Great Northern War (1700–1721), which killed between 23,000 and 33,700 people in Vilnius in 1709 and 1710 (Frandsen 2011). Based on the radiocarbon date, which places the tooth collected at 21 Subačiaus Street between 1685 and 1735, and the fact that Paulovičius donated a plot of land at this location to the Visitation Monastery in 1705, which was indicated on the 1808 city map of Vilnius to be a cemetery, the human remains found at the Rasu Street Prison site in 2016 are very likely associated with the turmoil caused by the Great Northern War and plague epidemic of 1709–1710.

Historical accounts of the land use change for this location through time indicate that the cemetery ceased operation and became a garden or orchard by the end of the 18th century (Ministry of Culture 1981). The walls of the cemetery were dismantled or demolished at various times, with the eastern wall possibly dismantled sometime in the mid-18th century. The south wall and gate remained intact until the early 20th century, as indicated by the poles and electric lines on the right side of Figure 17. Please note that you can see the twin steeples of the Ascension Missionary Church above, on either side of the ornate south gate into the area that once housed the cemetery, and where human remains were discovered in 2016. On the north side of the now forgotten cemetery, the north gate can be seen in a photograph from the early 20th century (Figure 18A), and

the remains of that gate, now bricked-in and incorporated into a wall that surrounds the training facility for the Lithuanian Prison Service, can be seen as well (Figure 18B). The red-roofed building adjacent to the gate and wall that served as the Gestapo residence is also visible in both photographs.



Figure 17. The south gate into the area that was once the cemetery (Ozdemir and Drury 2017).



Figure 18. Subačiaus Street, the north gate to the forgotten cemetery, the Ascension Missionary Church, and the Gestapo residence in the early 20th century (A) (Ozdemir and Drury 2017) and 2023 (B) (photo by Philip Reeder).

Through the multidisciplinary research design for this project, new information was added to the existing knowledge base about the killing and burial of Jacob Gens, and the interconnections that link Jacob Gens with the 17th and 18th century history of the area. Only through the combined approach of using science to write and rewrite history can the hidden history of a place be uncovered (Capstick 2020).

5. Summary and Conclusions

The interconnected hidden history of the Rasu Street Prison, the Gestapo residence at that location, the current training center for the Lithuanian Police Service, the Ascension

Missionary Church and Monastery, and the Church of the Heart of Jesus and Visitation Monastery are all in some way intertwined with the search for the remains of Jacob Gens. Contrasting these areas in 1944 (Figure 19A) and 2016 (Figure 19B), it is apparent that the same cultural landscape elements present in the 1944 Luftwaffe air photo, one year after when Gens was summoned to the Gestapo headquarters and murdered, are still present in 2016. By some accounts, on that day, Gens ended up at a small prison for Aryans at 21 Subačiaus Street, adjacent to the Gestapo residence, where he was shot in the head in the garden of the prison by Vilnius Gestapo leader Rolf Neugebauer. Gens was then buried in an already prepared grave in the garden. Moving forward 73 years, on 26 October 2016, human remains were unearthed at this location, which were suspected to be those of Jacob Gens.

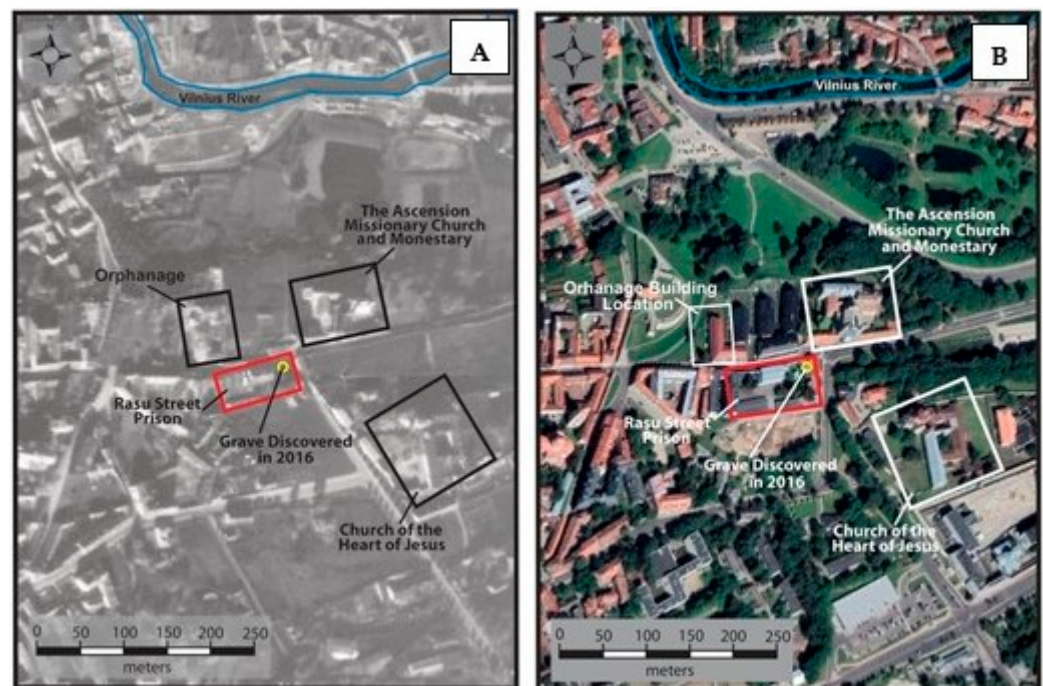


Figure 19. A low-resolution 1944 Luftwaffe air photograph (A) and a 2016 Google Earth satellite image with the important locations for this research indicated (B).

This project was divided into two phases. Phase one involved using geophysics to pinpoint the possible location of Jacob Gens' grave, and phase two involved an archaeological excavation at the place where the geophysics data indicate the highest probability of finding his remains. The three phase one research questions were as follows: (1) Will geophysical analysis detect disturbances in the natural stratigraphy at the 21 Subačiaus Street study site?; (2) Will GPR and ERT detect reflection patterns at the same locations?; and (3) Do these reflection patterns indicate the location of the remains of Jacob Gens?

Both GPR and ERT indicated the presence of numerous anomalies within the study area at 21 Subačiaus Street (see Figure 10). An interpretation of the ERT and GPR data yielded one location where GPR and ERT anomalies intersected (see Figure 5). These anomalies, in our opinion, were related to disturbances of the natural soil stratigraphy (layers) that correlate with anthropogenic activities that are possibly linked to the burial of Jacob Gens.

Since both GPR and ERT detected disturbances in the natural stratigraphy at the same location, and at the same depth, four new research questions were posed for phase two of the project, which focused on archaeological excavation. The four additional research questions were as follows: (1) Will archaeological excavation where GPR and ERT reflection

patterns intersect uncover human remains?; (2) Will DNA analysis comparing these remains to Ada Ustjanauskas, (Gens' daughter) indicate that the remains are Jacob Gens?; (3) Will radiocarbon dating of the remains indicate a death date that correlates with 14 September 1943?; and (4) If the remains are not Jacob Gens, why is this body buried at this location?

At 1.45 m beneath the land surface, below a cultural level interpreted to be from the 17th century, human remains were discovered within the 2 × 2 m excavation. Exposed in this excavation were a human skull and upper torso (see Figures 11 and 12). DNA from the tooth collected from the upper mandible of the skull, and from a cheek swab of Gens' daughter Ada, were compared, and it was determined that the tooth DNA and the sample from Ada did not indicate paternity, indicating that the human remains that were discovered were not those of Jacob Gens (see Figure 13). Radiocarbon analysis yielded dates that ranged from 1685 to 1795, depending on whether bioapatite or collagen was the material dated (see Figure 14). Given that radiocarbon dating using extracted collagen is the more accepted methodology, the date range of 1685 to 1735 was used to make comparisons between the age of the remains and the history of the area.

The limited amount of historical data for the area were compiled, and it was determined that a cemetery was established on a plot of land donated to the Visitation Sisters in 1705, and that this place was set aside for the burial of the dead poor (Ministry of Culture 1981). The radiocarbon date range of 1685 to 1735, the donation of the land in 1705, the fact that this location became a cemetery for the dead poor, and the plague epidemic of 1709–1710 all point to the reason why human remains were discovered at the former site of the Rasu Street Prison. It is our contention that the discovered remains were those of a poor male resident (as indicated by the DNA analysis) who very possibly died in the plague epidemic or cascading effects of the turmoil caused by the Great Northern War.

Additional research at this site is warranted to uncover the nature and extent of the forgotten cemetery that was rediscovered in 2016, but finding the cemetery was not the original focus of this research. A continued search for the remains of Jacob Gens at this location is now a complicated endeavor, because Gens, if he is indeed buried at this location, is one of potentially hundreds possibly buried in this undocumented and forgotten cemetery. This, coupled with the cost and the difficulty of procuring permits to continue this research at a secured federal government facility, thwarted the pursuit of additional research at this site.

Although the original intent of this research to locate the remains of Jacob Gens was not achieved, it can serve as a model for research at other Holocaust and non-Holocaust sites with complicated interconnected histories. It also more clearly establishes what happened at this place in the early 18th century. Without the research to find Jacob Gens' grave, the existence of this forgotten cemetery may have remained misplaced in the annals of history forever. As time passes and memories fade, it is essential to add this kind of information to the knowledge base about this area, which contains two historic churches and monasteries, a previously unknown and forgotten cemetery that was excavated in 2014, the forgotten cemetery that was rediscovered in 2016, and possibly the remains of head of the Vilnius Ghetto Police and the Ghetto itself, Jacob Gens.

Recently, a draft copy of this article was shared with Jacob Gens' granddaughter Irene Bernhard, who shared it with her mother Ada (Gens' daughter), and other family members. Irene informed us that the family is still interested in recovering his remains. They recently inquired with government officials in Vilnius about continuing the search and the possibility of future excavation. It is our understanding that, based on information provided to Irene by our research team and Zigmantas Vitkus from the Institute of Baltic Region History and Archaeology, the family is exploring options for continuing the search, not at the Rasu Street Prison site, but 150 m away in the gardens at the Heart of Jesus

Church and Monastery property. Thus, the final chapter regarding the recovery of Jacob Gens' remains may still need to be written.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/histories5020017/s1>, Figure S1. GPR grid information; Figure S2. Time slices for GPR grid with the reflection indicated (red circle) where excavation took place; Figure S3. Time slices for GPR grid with increased gain, with the reflection indicated (red circle) where excavation took place; Figure S4. Three-dimensional depiction of the GPR data with the location where excavation occurred indicated (red circle); Figure S5. Rotated three-dimensional depiction of the GPR data with the location where excavation occurred indicated (red circle); Figure S6. Drone image with excavation location indicated (red circle) where excavation took place; Figure S7. Drone image showing both possible excavation targets; Figure S8. Drone image showing both possible excavation targets with ERT line locations included; Figure S9. Composite image showing a drone image of the study site, and ERT 2 IP profiles oriented north-south and east-west; Figure S10. Composite image showing a drone image of the study site, and ERT 2 resistivity profiles oriented north-south and east-west; Figure S11. Composite image showing a drone image of the study site, and ERT lines 1 and 3 IP profiles; Figure S12. Drone image indicating elevations at the study site, and the location of the four ERT lines; Figure S13. Drone image orthophoto and topography with ERT line locations indicated; Figure S14. Low resolution 1944 Luftwaffe air photograph that contains the study area; Figure S15. 1859 map of Vilnius; Figure S16. DNA comparison graphs of the tooth sample and Jacob Gens' daughter; Figure S17. Burial comparison diagram related to Jacob Gens' burial in conjunction with a Polish and Lithuanian national; Figure S18. Drone image with excavation photo overlaid on the excavation location; Figure S19. Exposing the skull during excavation; Figure S20. Closer image of exposing the skull during excavation; Figure S21. Close up of the skull; Figure S22. Even closer photo of the skull.

Author Contributions: Conceptualization, P.R.; methodology, P.R., H.J., A.M., P.B. and M.D.; software, A.M., P.B. and H.J.; validation, P.R., H.J., A.M., P.B. and M.D.; formal analysis, P.R., H.J., A.M., P.B. and M.D.; investigation, P.R., H.J., A.M., P.B. and M.D.; resources, P.R. and H.J.; data curation, P.R., H.J., A.M., P.B. and M.D.; writing—original draft preparation, P.R.; writing—review and editing, P.R.; visualization, P.R., H.J., A.M. and P.B.; supervision, P.R.; project administration, P.R.; funding acquisition, P.R. and H.J. All authors have read and agreed to the published version of the manuscript.

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