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## RE: Report on human crania housed at Leipzig University

## Overview

Leipzig University has maintained a collection of human crania in the Anatomy Department, acquired in the late nineteenth and early twentieth centuries. Nineteen of these crania were collected from New Orleans, Louisiana with a note that they were collected through Dr. H. Schmidt. As repatriation efforts are ongoing, Leipzig University representatives Dr. Martin Gericke and Ms. Mandy Wagner requested that a qualified anthropologist verify the records of the skulls in comparison to the actual skulls in order to proceed. Ms. Christine Halling, M.S., RPA was traveling in the area and was able to view the collections, document the skulls, and provide a brief analysis of the crania to assist in repatriation efforts.

All efforts to objectively view the individual skulls were taken, this independent assessment was used to verify the information provided in the catalog record and may assist in genealogical research. The individuals were documented with notes and observations, as well as photographs. There was information written on the skulls, both names and catalog numbers, in this instance the catalog number (which the individuals are referred to in this report #790-808) followed by a dividing line and the number "27", this consistently occurred and became a verifying numerical code. In one instance there was an incorrect mandible in the box with a skull and was both clearly not an anatomical fit but also had a different code number under the dividing line and was therefore eliminated from the collection as belonging to any of the New Orleans individuals.

Ultimately, the biological sex of all individuals was consistent with the catalog notation, ancestry was also consistent in that all these individuals would have likely self-identified as African or African American. In the anthropological assessment, if there is a mention of an alternate ancestry, it is based purely on features observed and does not override the catalog details. Therefore, considering the assessment and catalog details, all individuals discussed herein are recognized as being of African or African American ethnicity and ancestry.

The largest discrepancies are found in the age indicators. Generally, under-aging (where the anthropological methods indicate that the individual is younger than the reported age in the catalog) is not concerning. Aging methods are based on cranial suture closure and dentition: the former is variable and individuals can have premature closure or delayed closure, while the latter is more tightly controlled by genetics. Dentition therefore is very good for aging younger individuals, but after approximately age 21 (when all the teeth have typically erupted), tooth loss and other indicators can only generally suggest an advanced age. Therefore, as people age it is more difficult to age them with standard anthropological methods. However, it is less likely that these methods would over-age individuals. In the summary below, I note where the individuals have been significantly under-aged, but more importantly (for genealogical purposes), I note the occasions where I have overaged individuals. I will also note more details about what specifically guided my analysis causing me to over-age these individuals. Also of note, the historic record

(catalog age) could be off due to individuals not knowing exactly how old they are (for example not knowing your birth year), or simple clerical error.

## Summary of initial Anthropological impressions

\*First, I note my interpretation of the individual as I viewed them during assessment, then note the actual age from the catalog, and if there are large discrepancies I then add an explanation with a final recommendation as to the age of the individual.

790- likely male, 35-50, African/African American: actual age in catalog 50.

791- likely male, 20-40, African/African American: actual age in catalog 22. Of note there is no mandible, and the third molars had erupted.

792- male, 20-40, African/African American: actual age in catalog 70. This discrepancy is due to cranial sutures that have not fused (aging the individual very young), however I did also note there was a lot of tooth loss during life and that suggests an older age than the cranial suture maximum. There was also some substance (possibly a plaster) on the skull which could have obscured some observations of the cranial sutures. Ultimately, I am not concerned about the major age discrepancy and would rely on the catalog age.

793- male, 20-30, African/African American: actual age in catalog 23.

794- male, 35-45, African American/European American: actual age in catalog 43.

795- likely male, 40+, African/African American: actual age in catalog 55.

796- male, 20-40, African/African American: actual age in catalog 48? Since the catalog notes that this is questionable, I would use the catalog age as a guideline but would not discount that they may be biologically younger or older at their death.

797- male, 35-50, African/African American: actual age in catalog 21. The cranial suture closure provided a range of 28-53, and there are large carious lesions (cavities) on the teeth which is what caused me to push the age range up. The third molars (last to erupt) are all present and in full occlusion, which again should age the individual older. Ultimately, I would use the catalog age as a guideline but would not discount that they may be biologically older at their death.

798 - male, 50+, African/African American: actual age in catalog 40+.

799- male, 30-45, African/African American: actual age in catalog 23. The cranial suture closure provided a range of 18-45. The third molars (last to erupt) are all present but there are three first molars (which develop early in life) that were lost during life. Typically, tooth loss is an indicator of age, but in this case a stronger consideration for poor dental care and access to resources may be a more likely cause. Ultimately, I would rely more on the catalog age in this instance but would not discount that they may be biologically older at their death.

800- female, 30-45, African/African American: actual age in catalog 15. Primarily affecting this age assessment is the complete closure of the sagittal suture (frequently seen and may be an indicator of premature suture closure, but in this case is likely a genetic variation and not craniosynostosis), which puts the cranial suture age range squarely into the 30-45 age range. The teeth are all fully erupted, including the third molar indicating that this individual is older than the catalog age. There are also several significant carious lesions (cavities) that are indicative of a lack of oral care. If we reassess the cranial sutures ignoring the premature closure scores, we get a wide range of 18-45, the ranges overlap beginning around age 28/29 which might be closer to accurate. In this case the catalog may give us some additional hints as to why age might be off, which begins with the terminology of "idiot", this term is problematic in many ways but may indicate that she was housed at a local institution or asylum. We also know that women were frequently sent to asylums for various ailments under the description of lunacy, particularly during this period. There were also several such institutions around the city of New Orleans at this time, one being at Charity Hospital. Further, she was described as short and small, musculature marks being slight however is not displaying traditional signs of nutritional deficiency in her dentition (which would indicate that during her youth she wasn't being taken care of). If she was truly 15 years old, there would not be this degree of tooth development. The confinement in an institution in which she was not getting dental care, or frequent exercise could more likely explain the observations of her dental and physical condition, particularly if she did not enter until she was older, however all of this is conjecture at this point. Ultimately, given that there are no nutritional deficiencies in her dentition, all teeth have erupted and are in occlusion, I would err to the assumption that she is older, likely in her mid-20's (if not older).

801- likely female, 25-40, African/African American: actual age in catalog 19. This discrepancy again starts with a cranial suture age range being wide, 18-40 years old, and the third molars have erupted and in occlusion. Therefore, the age is not that far off, so while I would rely on the dental eruption being indicative of an older age, it is not out of the realm of possibility that a 19-year-old had fully erupted third molars, but I would not be surprised if the catalog age is slightly off.

802- female, 40-55+, African/African American: actual age in catalog 55.

803- female, 60+, African/African American: actual age in catalog 70.

804- likely male, 50-60+, African American/European American: actual age in catalog 40? The cranial suture age ranges are wide, 35-60+, however there are several teeth lost during life which was being used to refine the age to an older demographic. Therefore, as the catalog does not specify an age with certainty, and the wide range of the anthropological assessment, coupled with the possibility that this is an example of simple poor dental health, I would ultimately conclude that this individual was 40+ and search for individuals that fit that demographic.

805- male, 30-50, African American/ European American: actual age in catalog 23. The full age range for the cranial sutures is 22-51, most of the overlap in the ranges indicates someone slightly older which is why it was refined to 30-50. Tooth loss is minor. Ultimately, I would rely on the catalog for this age as there isn't much of a discrepancy from the anthropological methods.

806- likely male, 25-40, African American/European American: actual age in catalog 17. Again, the cranial suture range is 18-45 years old, however the third molars are again fully erupted and in occlusion. Therefore, the biological age should be closer to 21-25 at a minimum, however I would assume that this individual was biologically older than the catalog age.

807- likely male, 30-50, Indigenous (American)/European American: actual age in catalog 23. Again, the cranial suture range is 22-51 years old, however the third molars are again fully erupted and in occlusion. Therefore, the biological age falls into the range, however, there is no mandible present, so the dental analysis relies upon only the maxillary (upper) dentition. Ultimately, I would rely on the information provided in the catalog and that the age is correct.

808- male, 30-40, African/African American: actual age in catalog 23. Again, the cranial suture range is 18-45 years old, however the third molars are fully erupted and in occlusion. There was tooth loss in life, which happened long before death based on the drift of the teeth in the jaws. Therefore, the biological age falls into the range, however, the tooth loss would have indicated an older age but there is nothing prohibiting the analysis of the age. Ultimately, I would rely on the information provided in the catalog and that the age is correct.

Summary

Overall, the demographics of the individuals are consistent with the catalog record that was maintained at Leipzig University. The main problematic assessment was regarding age, typically this result is easily resolved due to the higher than anticipated dental issues encountered. Had I presumed a higher likelihood of dental loss earlier in life, I would likely have left the age ranges open or narrowed to the younger side (rather than older). Ultimately, based on both the taphonomic markings on the skulls (the writings) as well as the anthropological assessment, I feel comfortable stating that the individuals documented as having come from New Orleans are consistent with their catalog description. After having viewed them in person I would confirm that they are the skulls of the 19 individuals that should be repatriated to New Orleans, Louisiana, USA.

Sincerely,

Christine L. Halling, M.S., RPA