

# Swedish Golgotha

*Anders Retzius' collection of human crania  
at the Karolinska Institutet according to  
an 1862 manuscript*

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In his short 1858 piece *Hints to Craniographers* the Philadelphia physician J. Aitken Meigs had found an information deficit:

Many cranial collections are to be found in Europe and America, differing in the number and ethnic variety of their specimens. Precise information, however, as to their location, extent, variety and proprietorship is not easily obtainable.<sup>1</sup>

Meigs himself had at the death of the Philadelphia doctor Samuel Morton become the custodian of the greatest North American collection of human crania, sometimes referred to as “the American Golgotha”. The deficit was troubling as Meigs regarded these collections as a basic need for any anatomical research on the subject of “race”:

Craniography is in truth destined to constitute one, perhaps the most important of the corner stones upon which the great edifice of the Natural History of Man is to be hereafter erected. [...] But the multiplication and classification of facts must in great measure keep pace with and be dependent upon the establishment of cranial collections, which constitute, so to speak, the store-houses of the raw material ready to be elaborated into science.<sup>2</sup>

Despite his best intentions of providing accurate information, Meigs himself still ended up further muddying the waters when enumerating some of the more important private collectors: “Retzius, Nilsson, Eschricht Van der Hoeven, Thurnam &c”. He was of course mistaken about Anders Retzius, the professor of anatomy at the Karolinska Institutet (KI), the Stockholm medical school. The collection, while founded by Retzius, was the property of the institute, and thus of the public.

The list also indicates the distributed character and network aspects of this peculiar form of 19th century scientific collaboration—the collection, and circulation, of crania and casts not least. In fact, Meigs himself had entered into exchange with Retzius, and before him Samuel Morton and Retzius had both on a much grander scale profited from a relationship of mutual exchange. Yet despite their personal acquaintance, the public nature of Retzius’ collection was apparently still obscure to Meigs.



Figure I.  
"Förteckning på Cranii-samlingen sådän den vid A. Retzii död sig befann. Uppgjord af G. Retzius. Juli 1862."

(Account of the collection of crania as it was found at the death of A. Retzii. Established by G. Retzius. July 1862.)

P.1

This is a large handwritten table with approximately 10 columns and 15 rows. The text is dense and appears to be a detailed inventory or list of items, likely crania, with various descriptive notes and numbers.

P.2

This is a handwritten table with approximately 10 columns and 15 rows, similar in format to P.1, containing detailed handwritten entries.

P.3

This is a handwritten table with approximately 10 columns and 15 rows, continuing the list of items from the previous pages.

P.4

This is a handwritten table with approximately 10 columns and 15 rows, showing the continuation of the inventory.

P.5

This is a handwritten table with approximately 10 columns and 15 rows, the final page of the list shown.

## The 1862 inventory of Anders Retzius' craniological collection

Of course, Meigs could be expected to struggle with detailed information regarding Retzius' collection, which he had personally never seen. Retzius showed it to visitors, and it was accessible to the Stockholm public along with the other KI museum collections, but no catalogue was ever published. Its precise contents have thus remained more or less completely obscure. However, a form of graphic "census" of the contents of the collection, and its arrangement, was produced at the death of Anders Retzius in 1860. This document was found among the catalogued papers relating to the collection that was deposited with the Department of Osteology at Stockholm University in the late 1960's. (It is currently kept at the KI Unit for Medical History and Heritage/Hagströmer Library.) The intention here is to make a brief presentation of this document and a preliminary discussion about what can be deduced about the collection's extent and composition. (Figure 1 presents the general layout of the document.)

The document is dated July 1862. The author was Anders Retzius' son, Gustaf, aged nineteen at the time, later to become first professor of histology, later anatomy, at the institute, and to continue his father's interest in human crania as possible material for the classification of supposed human "races" into the first decades of the twentieth century.

The manuscript consists of five pages, each a drawing of one of the five large cabinets that held the collection. The first, and most spectacular of these cabinets, a double one of seven shelves, bore at the top the caption "Gent. Brachycephal. Crania". The left half of the cabinet was indicated to contain "Skythi", while the right half was divided between "Slavi", "Pelasgi" and "Mongoli". The indicated "Skythi" category was comprised of 50 crania, and the later three categories of 61, the lower three shelves being dedicated to the "Mongoli" further specified to be "Prognata".

The following two single cabinets contained 64 crania, mostly from western European nations, from Sweden not least, with specimens of among others from German, French, British etc. extraction, and 72 crania of very varied provenances—Greek, Russian, Siberian, Chinese and East Asian, Australian aborigine, Ancient Egyptian (with some modern mixed in), and some crania from the extinct Canary islanders, the Guanches. The last two cabinets were less cramped, containing 28 and 27 specimens respectively, the first containing examples of the inhabitants of the western half of the New World, regarded as stretching from Greenland in the north to Patagonia in the south, and the second specimens stretching from Alaska to the Pampas region. In sum, the total of the collection as recorded in 1862 stood at 302 specimens, human crania or plaster casts.

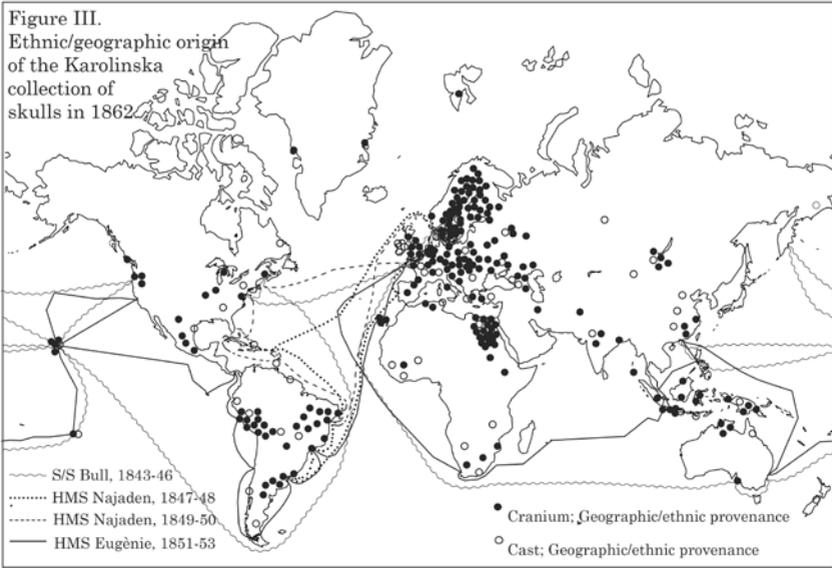
Figure 2 is a summary of the composition of the collection in tabular form, by purported geographic or ethnic origin as would be the case. Complementing it is Figure 3, a map indicating geographical origin. Each cranium is represented by a filled dot, with circles for casts. As number of

Figure II. Anders Retzius' collection of crania at the Karolinska Institutet Museum of Anatomy in 1862

CASE 1 ("BRACHYCEPHALI", 111 CRANIA)			
Laplander [Samj] (b)	19	Chinese	8
Finn (Carelian 2, Kven 3) (b)	18	Tungus	1
Estonian (b)	1	Kamchadal (Kamschatka) [Itelmen]	1
Ancient Swede (Turanian)	1	"Australians"	12
Scyth (Ancient king, Dniepr) (b)	1	(— Australians	5)
"Egyptian priest" (Hyksos? Skyth?) (b)	1	(— Hawaii	1)
Chinese Tartar (b)	1	(— New Zealand	1)
Indian Lascar (Afghan) (b)	1	(— New Guinea	1)
Afghan (b)	1	(— Java	1)
Turk (b)	2	(— Nikobar Islands	1)
Tartar (b)	1	(— Ceram	2)
Avar (b)	1	Abyssinian	1
Ancient Greek (b)	2	Berber (Algeria)	1
Ancient Egyptian (Manfalut) (b)	1	Egypt (Modern 2, Ancient 17)	19
Pole (Galizian 1) (b)	4	Guanche (Islas Canarias, Teneriffa)	3
Czech (Bohemian 2, Moravian 2) (b)	7	Sub-saharan Africans	12
Croat (Morlack 1, Dalmatian 1) (b)	2	(— "Negro" (W. Africa)	5)
Russian (Ukrainian 3) (b)	10	(— "Kaffer" (S. Africa)	6)
Basque (b)	3	(— "Hottentott" [Khoikhoi] (S.A)	1)
Iberian (Celt-Iberian) (b)	1		
Gaul (Celt-Iberian) (b)	1	CASE 4 & 5 (55 CRANIA)	
Irish (Celt-Iberian) (b)	1	Berber (Algeria, Kabylia, Mitidja)	1
Austrian (b)	4	"Otaheti" (Tahiti)	1
Schweiz (Rhaetian) (b)	1	"Eskimo" [Inuit]	4
Bavarian (b)	1	(— Greenlander	2)
Calmuck (b)	1	(— Esquimaux, Labrador	1)
Buriyat (Mongol) (b)	4	(— Konyag, Kodiak Isl. [Alutiq])	1)
Malay (b)	10	N. American Natives	13
(— Java (b)	5)	(— Narraganset	1)
(— Bali (b)	1)	(— Miami [Miyaamiaki]	1)
(— Celebes (b)	2)	(— Ottawa	1)
(— Borneo (b)	1)	(— Menominee [Mamaceqtaw]	1)
Polynesia (Hawaii 4, Tahiti 2) (b)	6	(— Chenouk (Chinookans)	3)
New Guinea (Papua) (b)	4	(— Arikara [Sahish]	1)
		(— Vancouver Isl.	1)
		(— Creek (Muscogee) [Mvskoke]	1)
		(— Sac (Sauk)[Ojibakiwaki]	1)
		(— Comanche [Numunuu]	1)
		(— "Ancient American"	1)
CASE 2 & 3 (136 CRANIA)		Central American Natives	4
Swedes (Germanic)	27	(— Aztec	3)
Swedes (Celtic)	8	(— Mexcian	1)
Danes (Germanic, "Cimbri")	4	South American Natives	32
Norwegian (Germanic, "Normannus")	2	(— Carrib	1)
English ("Anglosaxon")	3	(— Aymara	5)
Brits (Ancient Celts, Gaels)	3	(— Peru	9)
Irish (Celt-Iberi)	2	(— Bolivia	1)
French Celts (Gauls)	6	(— Botocudo (Brazil) [Aimoré]	1)
Dutch (Batavian)	6	(— Tapuio (Brazil)	4)
Germans (Germanic)	3	(— Guarami (Brazil)	4)
Germans (Celts)	1	(— Bahia (Brazil)	1)
"Swedish" Russian (Nizhgorod) (d)	1	(— Guarani (Paraguay)	1)
Ancient Greek	1	(— Pampas	2)
Greek (modern, "Armenian")	1	(— Puelche (Pampas)	1)
Ancient Algerian (Physician)	1	(— Patagon	1)
Ancient Carthaginian (Tunis)	1	(— Aruacan [Mapuche]	1)
Ancient Persian	1		
Caucasian (Georgian 2, Cirkassian 1)	4		
Hindu(stani, India)	3		

crania was provided with only the broadest geographic or "ethnic" descriptors their inclusion has required an act of relatively high-handed interpretation. In general terms the map gives a reasonable idea of the collection, if not in every single detail.

Generally speaking, the "African" category was comparatively poorly represented in the collection, often with vague or absent geographic or ethnic descriptions. Given the nature of New World slavery it is also very much open to question whether the provenance should really be African, or rather for instance Caribbean? The African section of the collection also contained a disproportionately large number of casts of skulls compared to other parts of it. The map finally also includes dates and routes of four Swedish naval expeditions of the 1840's and 50's that provided Anders Retzius and the Karolinska Institutet with crania for their collection. Finally, the dot on the otherwise uninhabited Svalbard islands indicates a spot of grave-robbing perpetrated by the Stockholm zoologist Sven Lovén of one of the graves of Russians looking to extract the resources of the islands.



The arrangement of the collection perhaps unremarkably testified to an implementation of Anders Retzius' system of craniological classification. However, it did so with strikingly little emphasis on his methodological innovation, the "cranial index". No actual measurement data were provided with any of the specimens on display. The four factors that the system supposedly hinged on—brachycephaly vs. dolichocephaly (short-skulls vs. long-skulls), and prognatism vs. ortognatism (protruding vs. straight teeth)—were really only present in the form of the captions on the first cabinet; the "Brachycephalic nations", of which only the "prognate Mongols" were singled out for specific mention. Of the 302 specimens only six were specified to be "dolichocephalic", a mere single cranium was specified to be "brachycephalic" (aside from the specimens of the first cabinet), while three cases of "prognatism" were mentioned, but none of "ortognatism". The arrangement of the collection rather presented a succession of nations and populations according to their political and geographical circumstances, some clearly modern nations in the 19<sup>th</sup> century sense, with others a combination of ancient and modern "tribes" of various kinds, and finally certain groups clearly falling in broad categories of "race", possibly most clearly the "negroes". Hopefully the reader can form an image of the arrangements to gauge this for him- or herself, but overall the possibility of ordering nations or races hierarchically was quite muted and left as an implicit possibility. The collection as presented certainly dealt with the display and establishment of difference, a necessary but not on its own sufficient precondition for assigning different and unequal values to various groups. Certainly nothing in the arrangement

precluded this from being supplemented by a visitor, but neither would it seem to have been a necessary conclusion from the display itself. The matter was seemingly left as an unconfirmed possibility, rather than any supposed programmatic certainty.

Something that does seem to be borne out by the arrangement of the crania is, however, the extent to which Anders Retzius' system proceeded from the implicit assumption of "dolichocephaly" as the norm, with "brachycephaly" defined primarily as deviations from it. In his publications, nations were distributed among the four categories of long or short skull and with buck or straight teeth, as indicated above, and the implicit preference would seem to have been for the straight-teethed long skulls. Occasionally his groupings produced unexpected twists, seemingly indicating problems of interpretation. One such would be the presence of two skulls of the Greek nation, one ancient and one presumably modern, the first located among the short-skulled nations of the first cabinet, and the second in the cabinet with among other the Africans, in Retzius' system consistently long-skulled. The discrepancy might be interpreted as indicative of the possibility for a nation to change its skull-shape, a possibility not otherwise alluded to by Retzius. Given the high regard for the ancient Greek nation their identification as possibly short-skulled is at least a slight surprise given the overall preference for the long skull.

The last two cabinets, dedicated to the New World, corresponded to his specific contribution to craniology, in direct contravention of the results of none other than the great Samuel Morton. In Retzius' system, the natives of the New World presented a far from homogenous appearance, and in fact displayed clearly differing skull forms, possible to trace along an east-west divide.

The Sami, or "Laplanders", were clearly special to Anders Retzius. The "beginning" of the collection was to be found in the upper left-hand corner of the impressive double cabinet, the equivalent of the upper corner of the first page of a book. It was entirely consistent with the centrality of the Sami as the "significant other", the original natives of Scandinavia eventually displaced by the direct ancestors of the modern Norwegians, Swedes etc., in the grand synthesis of Nordic prehistory that Anders Retzius' craniology showcased. His great later detractor, the French neurologist and physical anthropologist Paul Broca referred to it as the "Nordic school", and went about successfully disproving it and Retzius' conclusions, a blow especially to the Swedes' attempt towards a synthetic view of the relationship of the human races and nations of the world, a blow it never recovered from. Of the eighteen Sami crania, four had Lycksele indicated as their place of origin, one each for the equally northern Swedish localities of Sorsele, Umeå, Luleå, Skellefteå, Arvidsjaur, Karesuando, and even Kautokeino in the far north across the Norwegian border. The individuals providing them would seem a combination of doctors, possibly

medical functionaries of the Swedish state—Drs. Lindström, Malm, von Scheele, Schöldberg—and travellers, like Professor Zetterstedt, Retzius’ friend the natural historian J. A. Wahlberg, and a British traveller named Solomon.

### The 1862 inventory

The specific context in which Gustaf Retzius carried out his inventory is unknown. The KI anatomical museum was the pride of the institute, and the personal creation of Anders Retzius. Ambitious publication plans for the Karolinska anatomical collections were in the works at the untimely death of Retzius. In 1855 a first volume of twelve pathological specimens were published as the projected first instalment in a series of the *Museum anatomicum Holmiense*. Retzius’ death brought the publication to a halt that eventually turned out to be permanent. Nevertheless, and likely intended as an act of homage, his successor in the anatomical chair at the Karolinska, Baron Gustaf von Düben, had advanced plans to publish a catalogue specifically of the craniological collection. There was at least one very good precedent for such a catalogue. The elderly Samuel Morton had published one of his massive collections in 1849, and Aitken Meigs went on to publish several updated editions. There will be cause to return to the published Philadelphia collection later, as connections between it and its Stockholm counterpart can be established.

von Düben was granted the sum of 1500 “Riksdaler”, as an extraordinary grant by Parliament, for this purpose at least twice over the space of a decade.<sup>3</sup> Yet for reasons unknown no publication ever appeared. It is possible that Gustaf Retzius’ inventory was composed as part of some preliminary preparations.

The collection shows little consistency as to the range of information provided for any single specimen. At their briefest captions might read “Gotland”, or “Otaheiti” (a somewhat antiquated Swedish version of “Tahiti”). This paucity is most prevalent with the plaster casts—of which the collections held a total of fifty-five—many of which seem to have had their origin in phrenological circles, and even to have been acquired from commercial sellers as “national crania”, as generalised national “types”.

No less than 110 of the 302 crania in the collection can with reasonable certainty be identified as antiquarian pieces. These were acquired through archaeological digs etc., i.e. having a historic, not contemporary, provenance. Of course, all the 192 remaining crania cannot by default be assumed to have been contemporary. The Scandinavian and European crania are clearly overrepresented as antiquities, which is consistent with Anders Retzius’ work as a craniologist at the outset, treating it largely as an auxiliary science to antiquarian/archaeological concerns about the history and origin of the nations and races of Europe. Non-European crania in the

collection much less frequently had any particular antiquity indicated, and then only in such parts of the world where ancient advanced civilizations had flourished, with Ancient Egypt and the Andean civilisations very much in evidence.

In the first, large double case dedicated to the “Brachycephalic nations” only 12% of the crania were clearly labelled as ancient or historic (13 out of 111). Part of the problem here is that we simply lack sufficient information about for instance the circumstances of the eighteen Sami crania in the collection. For all intents and purposes they were thus treated as if stemming from an undiversified ethnographic continuum of a history-less “Lapland”, while the actual crania might well have stemmed from several centuries. Similar problems of ahistoricity, or unrecognised historicity, would seem to accrue to the other material of non-European origin.

The second case, dealing with Scandinavia and Europe, can be said to be overabundant in historicity, with no less than 73% (47 out of 64) of the crania identified as in some sense antique or historical. While still remaining in the Old World, but gradually moving away from western Europe, in the third case 42% of the crania can reasonably be identified as historic (30 out of 72). The New World was represented in cases four and five, not divided by a north-south but rather an east-west split. The more westerly case four showed only 14% antiques (4 out of 28), while the more easterly case five, due to the presence of pre-Columbian civilizations, as many as 55% (15 out of 27).

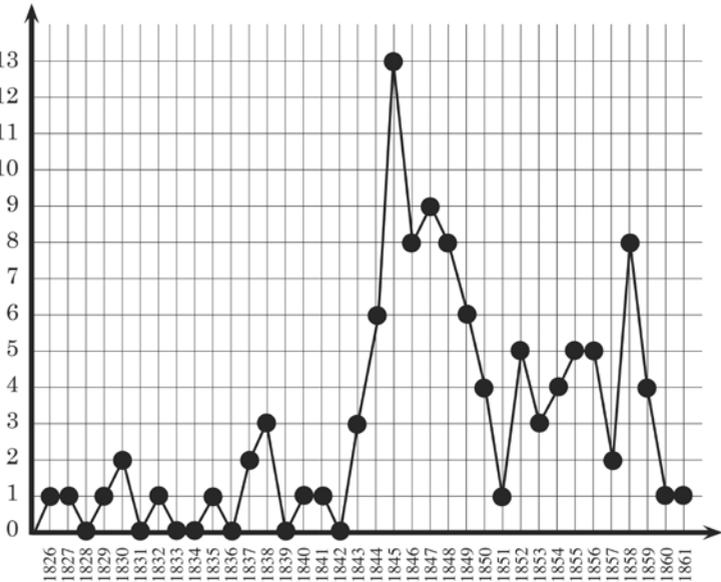
### **The origin of the contents of the collection**

The collection was far from homogenous. It bears the traces of the history of its aggregation, most clearly discernable in the range of languages used and its variable nomenclature. This is in turn an indication of the sheer diversity of classificatory schemes adopted by different anatomists with an interest in some form of “craniography” or “cranioscopy” (describing and viewing), further augmented by the presence of casts with a clear origin in phrenology, a science Anders Retzius eventually went on record to denounce, while the collection’s arrangement does show them shorn of any direct link with phrenology itself.

The distribution of languages used in labelling is a case in point, with an extensive use of Swedish and Latin, and a not insignificant mix of the two in the same recorded inscription. Minor use was made of in particular English and French, while only a single use of German can be noted. From what can be deduced about provenance, the collection was created at a time when Latin natural history was still very much in evidence, with heavy use of it by the Swedes and other Scandinavians, as well as the German scholars involved, while a smaller number of specimens testifying to access to the British and French colonial empires, with a sideline of

Figure IV.

Year of acquisition of crania and casts for the KI collection, 1826-61.



French as the language of the international diplomatic corps. The overall distribution breaks down as 44% in Swedish (133 of 302), 39% in Latin (119 of 302), 6% in Swedish and Latin (18 of 302), 2,6% French (8 of 302), with 1,3% a mix of Swedish and French (4 of 302), 6,2% in English (19 of 302), and a single example in German.

Since 110 of the crania in the collection were provided with the year of their acquisition, some reasonable estimates can be provided regarding variations in Anders Retzius' activity of collecting over time, as well as certain insights into variations in focus, interest and opportunities for doing so, as presented in Figure 4 below.

What seems to be indicated is that the traffic of crania entering the collection was modest prior to Retzius' adoption of his new field of inquiry in the early 1840's. It then quickly took off, quickly building to a peak in 1845 before tapering off until the first years of the 1850's, as Anders Retzius capitalised on the success of his first paper *Om formen af Nordboernes cranier* (Stockholm, 1843; On the skull-shape of the Scandinavians), to extend his network, and broaden and diversify his collection to eventually cover most of the world and its populations. From the early 1850's the rate of acquisition seems to have stabilised at a constantly higher level than the one prior to the 1840's.

Only fourteen dated crania entered the collection between 1826 and 1842. No less than 96 were acquired from 1842 to 1861, that is to say the activity in Retzius' network continued to yield fruit for the collection even after Retzius' own demise in 1860, to be recorded by his son in 1862. (The last cranium recorded in the manuscript was the skull of a Native American

from Vancouver Island on the north-west coast of North America, donated by a so far not yet identified Swede by the name of Axel Cronhjelm.)

Given that Retzius' publishing activity in his new field of specialisation did not occur until the 1840's, it is nevertheless telling that his collecting of human crania, from all over the world, clearly predated it, indicating a much more long-standing interest. The first dated crania entered the Museum of Anatomy at the Karolinska already in 1826. It bore a somewhat "macaronic" inscription in mixed Swedish, French and even a bit of anatomical Latin: "Aymara / Amer[icanus]. Peruv[ianus]. dolichoc[ephalicus]" followed by: "fr[ån]. trakten / af Titicacasjön / Gen[om]. cons[ul]. Chasimette / en förêts / 1826" (i.e. "from the region of Lake Titicaca, through Consul Chasimette, in the forests, 1826"). Other early acquisitions included a cranium from eastern Greenland entered in 1829, and an African cranium from the Leyden anatomist and collector van der Hoeven, inscribed: "Kaffrorum princeps / vir bello" ("Kaffer" prince, warrior).

Anders Retzius must clearly have had access to far more than a mere fourteen crania, when he began his studies of them around 1840. The low figure is thus unlikely to be entirely representative. There is however one aspect of the dated early crania that bear further mentioning; no less than half the dated early crania, seven out of the fourteen, were Sami. As has already been indicated by the arrangement of the collection, putting the "Laplanders" at the very top and entry point to the collection, and the known fact that the Sami were cast as the "significant other" of a Scandinavian pre-history as outlined by Retzius and many of his contemporaries, clearly his interest in the Sami, and the collection of their skulls, was established many years before he decided to publish on the matter.

### **The craniological network of Anders Retzius**

A certain amount of biographical detective work was necessary to augment the barebones information provided by the manuscript, frequently merely a name. Still, it is with reasonable certainty that ninety-four named individuals who provided Retzius with specimens for his collection can be identified. It also allows certain insights into the composition of the rather heterogeneous group, which as far as can be told was connected only through Anders Retzius himself.

A simple tally of the distribution of professional titles indicates that as much as forty-nine individuals (52%), were medical professionals, thirty four (36%) held the MD title. Another twenty three (24%) held professorships of one kind or another, not all of them medical as the list also included natural historians and zoologists. Among the others were found one engineer, three noblemen unidentified beyond their social status, four diplomats, and one painter. The overwhelming impression, however, is of a specialist interest among anatomically trained medical professionals.

As mentioned a likely inspiration for any attempt at publishing the Retzius' craniological collection was its Philadelphia counterpart assembled and published by Samuel Morton. With access to Morton's information some preliminary, but still telling, comparisons can be made.

The Morton collection as catalogued in 1849 held some 800 human crania, provided by one hundred and thirty-nine donors. Compared to the Retzius collection at the KI the dominance of the medical profession was even slightly more pronounced. As Morton was fastidious in providing professional titles, no less than seventy-nine named medical doctors, US army and navy surgeons included, made up the lion's share of his network, almost 60%. Otherwise the pattern was the same as for the Stockholm collection—a smattering of engineers, merchants, army and navy personnel, as well as members of the diplomatic corps.

The most striking difference between the networks of Retzius and Morton would however seem to have been the relative dearth of academic faculty as part of the American's network—no more than five individuals, also including one “medical chief of staff”, or 3,6% of the total, compared to Retzius' 24%.

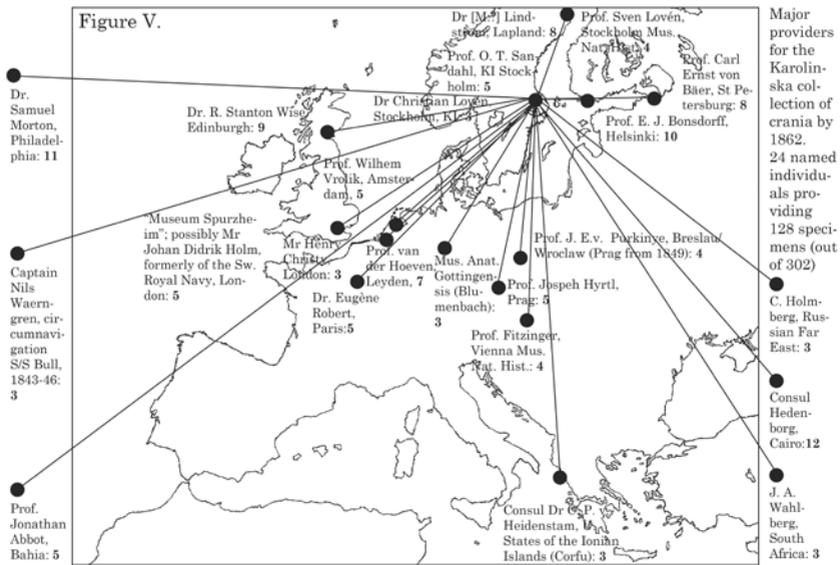
As a tentative conclusion, Samuel Morton seems to have relied heavily on access to colleagues in the medical profession in the U.S. By comparison Anders Retzius in Stockholm to a much higher degree seems to have been able to mobilise the medical academic elite of the European universities and medical schools. What seems safe to conclude, however, is that as a collective endeavour, the study of human crania for purposes of classification, and possibly a “natural history of man” in terms of “race” or “variety”, was very much a concern for the anatomically trained medical profession.

Finally, before briefly turning to the matter of who these providers of crania were, a comparison of the lists of the over two hundred names of Morton's and Retzius' respective networks seems to indicate no overlap whatsoever. As will be seen, Retzius and Morton had tangible presence in each other's collections, but maintained otherwise separate networks.

### **Procurers and providers of crania**

It is possible to make a “top list” of individuals providing crania for both Anders Retzius and Samuel Morton, and they both feature on each other's. (See Figure 5 for the Karolinska Collection.) Twenty-four named individuals, or in some cases institutions, provided Anders Retzius with three or more crania, for a total of 128 out of the total 302 specimen, i.e. more than 42%.

The top spot went to the Swedish Consul to Egypt, Dr Johan Hedenborg, availing himself of relatively easy access to western-oriented Egypt under the rule of the Khedives, and the vast store of ancient Egyptian archaeological material. Second place, however, very tellingly went to



Samuel Morton, with eleven crania from North and South American native populations, in particular ancient Peruvian mummies, Peru in that regard showing a set of circumstances similar to Egypt.

The top list not surprisingly shows a considerable presence of elite academic anatomists, individuals with access to museum collections, anatomy rooms etc., or museums as institutional actors in their own right. The anatomy professors included Retzius' friend Julius Bonsdorff in Helsinki. Bonsdorff through Retzius was indirectly in contact with Morton, for whom Bonsdorff's position in the Finnish Archduchy under its Russian emperor provided access to the vast Russian empire. Others included the English born Jonathan Abbot, professor of anatomy at the local medical school in the Brazilian province of Bahia, the Edinburgh anatomist Dr Stanton Wise, the already mentioned Dutchman van der Hoeven, the Prague anatomist Joseph Hyrtl and the Breslau colleague Johann Evangelista Purkinje, both of whom were also particular personal friends of Retzius. Retzius' main source of French material, quite varied in character, was however no anatomist or even medical doctor, but a Paris geologist, Dr Eugène Robert. The museums included the pioneering Göttingen collection originally created by Johann Friedrich Blumenbach, though it provided only casts, and there seems to have been little or no contact with Blumenbach's successor Rudolph Wagner. Anders Retzius on the other hand had a lengthy relationship with the embryologist Karl Ernst von Baër at St Petersburg Academy of Science, and a considerable exchange of casts took place. Finally obscurity still clouds the exact provenance of the specimens, all casts, from the collection referred to simply as "Museum Spurzheim". It would seem that Dr Spurzheim, the great champion and

populariser of phrenology, particularly in the English-speaking world, may have left his collection, at least in part, to his good friend the former captain of the Swedish royal navy turned London businessman, Johan Didrik Holm. It has been included on the map in Figure 5, but remains a very tentative, if suggestive, possibility. The Swedish angle here would be interesting to further investigate.

Finally the circumstances of crania coming into the Stockholm collection raises the question of what went out of it, both human crania per se and casts? Clearly Retzius was engaged in exchanges requiring reciprocity. Investigating that would however require access to information about these other collections in communication with the Stockholm node controlled by Retzius. Again the Morton collection can provide a point of reference and comparison.

If Morton was the second largest individual source of crania for Retzius, he was only slightly less crucial to Morton. The tally of the 1849 catalogue put Retzius in sixth place, with a contribution of in total seventeen skulls and casts. While dwarfed by Morton's main suppliers of ancient Peruvian crania, William A. Foster, of Lima, Peru—142 crania—and Morton's friend the US consul to Egypt, provider of ancient Egyptian skulls, George R. Gliddon with 136, Retzius might however have been less of a one-trick pony. He had access to not just his own Scandinavian material, but also the collections of the academic anatomical elite of Europe, and through friends Bonsdorff in Helsinki and von Baër in St Petersburg even to the vast Russian empire.

Morton's death in no way spelt the end of Retzius' association with his collection. In 1857 Meigs published an updated catalogue in which Anders Retzius' contribution had increased to no less than 28 skulls and 10 casts (*Catalogue of Human Crania in the Collection of the Academy of Natural Sciences of Philadelphia*, J. B. Lippincott & Co, 1857). More than that, and possibly an indication of Retzius' status as an authority, Meigs even chose to open with following: "I. Caucasian Group/I. Scandinavian Race/1. 1260. Cast of a Norwegian skull", provenance Anders Retzius of Stockholm. It was however a nomenclature that differed from the one on display in Stockholm at the time, in particular the choice of Blumenbach's "Caucasian" as an overarching category. Or in other words, as the skulls were made to travel they were put to different and heterogenous uses by different scholars.

## Notes

1. J. Aitken Meigs, *Hints to craniographers* (Philadelphia, 1858), 5.
2. *Ibid.*
3. Karolinska Institutet, Lärarkollegiets

protokoll, Riksarkivet Stockholm: Meeting protocols, 22 December 1860, §7; 26 September 1867, §6.