

# Ernst Haeckel's Colonial Skulls

*Enrico Paust, Carlies Maria Raddatz-Breidbach, Uwe Hoßfeld,  
Joachim Bauer & Stefan Gerber*

**Abstract:** As a result of the project it can be stated that eight skulls were examined with regard to their provenance. Seven of these skulls were identified as collection objects during the research, recorded anthropologically and the results of the studies reported to the Foreign Office and the representatives of the countries of origin in order to prepare for restitution. Only the Maasai skull bought by Haeckel has not yet been found and must be considered lost. The provenance of two skulls bought by Haeckel could be confirmed via the documents from the natural history trade Umlauff and the Haeckel archive. Both skulls appear not only on the proforma invoice in the inventory of the Ernst-Haeckel-Haus, but also in the business documents of the Umlauff company preserved in the MARKK. How both skulls moved to Umlauff cannot be clarified on the basis of the archive sources. With regard to the six skulls from the Osteological Collection, an entry into the collection between 1930 and 1935 became identified under the ordinariate of Hans F. K. Günther. The exact route to Jena cannot be traced for the three skulls of the Maasai, but due to the aforementioned previous owners Gustav Adolf Graf von Goetzen and Wilhelm Kuhnert, a connection with the Maji-Maji revolt can be considered probable. The three skulls from Papua can be traced back to a purchase from the company “Curiositäten Umlauff” and a gift from the University of Jena Kaiser Wilhelm Institute. Only one skull cannot be narrowed down in

terms of its origin. Overall, this first project has shown that there is a need for further research with regard to the extent of the colonial collections at the university. As part of the research in the collections of the Phyletic Museum and the Osteological Collection, it must be assumed that the number of items in the collection will continue to grow. These questions will also be investigated further in the coming months and years. For this purpose, a working group “Colonial Heritage and Racism-Critical Educational Work” was set up at the University of Jena on behalf of the President in October 2021, to which four authors of the present publication belong.

**Keywords:** Ernst Haeckel, Hans F. K. Günther, Bernhard Struck, colonial skulls, Papua-Newguinea, Tanzania, Deutsch-Ostafrika, Maasai

## 1 Preface

The Friedrich-Schiller-University of Jena was founded as a high school in 1548 and elevated to a university in 1558. Today it has a large number of scientific collections, some of which go back to the time the university was founded, but most of which were created within the last 200 years.

The collections of the University of Jena form the starting point for the implemented project. In the course of the first “small inquiries” from the Thuringian state parliament (N. 214, 215, 373 and 374) in spring 2020, the collections were checked for the first time with regard to objects with a possible colonial background. The anatomical collection, the prehistory and early history collection, the osteological collection, the collections of the Institute for Zoology and Evolutionary Research with the Phyletic Museum, Ernst-Haeckel-Haus and Biology Education and the former Ethnographic Museum were identified as affected institutions. In addition, the university archive was also included in the investigations as the custodian of all the university files.

The research produced the following results from the institutions mentioned:

The anatomical collection contains eight over-modeled human skulls that were taken over from the University Jena’s osteological collection in 1997. According to the current state of research, they came to the Ethnographic Museum at the beginning of the 20th century and from there possibly to the Osteological Collection via the Prehistory and Early History collection. In addition, the collection contains around 250 so-called “racial skulls” from various countries around the world. No provenance research is yet available for these.

In the Ernst-Haeckel-Haus are the purchase documents that prove the purchase of two skulls by Ernst Haeckel, as well as other documents that prove the contacts between Ernst Haeckel and the natural produce dealership Umlauff. In addition, Haeckel’s correspondence, which is under preparation as a part of an academy project (Leopoldina), was included in the project. The collections of the Zoological Institute and Phyletic Museum are also part of the provenance research.

The holdings of the Prehistory and Early History Collection include two areas that are being checked: On the one hand, a holdings of 830 objects that were taken over in 1921 when the Ethnographic Museum was closed and that were completely transferred to the University Jena's Osteological Collection in 1937 and which are likely to be found today are still in this collection. On the other hand, an inventory of non-human, art and cultural-historical objects comprising 57 objects is to be taken into account. The objects entered the collection through purchases and donations and were transferred to the Osteological Collection in 1937. From this they came on permanent loan to the Grassi Museum in Leipzig in 1969 and are still stored there today.

The Ethnographic Museum of the University of Jena was founded in 1866 and dissolved in 1921. At the time of the dissolution, the holdings comprised well over 10,000 inventory numbers, which included photographs, display boards, ethnographic objects such as arrowheads, bows and ceramics, but also human remains. The objects come from research trips by Jena scientists or were acquired through donations and purchases. When the museum was closed, the holdings were passed on to other collections at the university or sold to non-university institutions. Some of the objects in other collections have already been identified.

The osteological collection in Jena was founded in 1930. Shortly after it was founded, it took over objects from the former Ethnographic Museum, which had been in the collection for prehistory and early history in the meantime, as well as from other collections. In addition, the ethnographic holdings were expanded through donations and purchases. With the dissolution of the superordinate professorship for anthropology (U. Jäger), the collection was stored in a depot of the Thuringian State Office for Monument Preservation and Archeology, but remained the property of the university. According to previous research, 17 boxes can be identified within the inventory, in which there are objects with a possible colonial background.

Although there are no objects in the university archive that have a colonial connection, the collection documents from the disbanded Osteological Collection and the Ethnographic Museum are kept here. Together with the files of the university's board of trustees, these are extremely meaningful for provenance research on the individual objects.

These holdings formed the basis for a first small project on two skulls bought by Ernst Haeckel, which was funded by the German Center for the Loss of Cultural Property. The present publication is a greatly abbreviated excerpt from the final report of this project.

## 2 Documentation of Results

### 2.1 Anthropological images of the skull

#### *Material and methods*

There are seven skulls for processing. One of these skulls comes from the Phyletic Museum and the other six from the Osteological Collection.

The skull from the Phyletic Museum is evidenced by the inscription and the written sources from Papua and was bought by Ernst Haeckel from the natural produce dealer J.F.G. Umlauff bought in Hamburg. Of the skulls in the osteological collection, one of the skulls from Papua can also be ascribed to the Umlauff company, although it was acquired by the subsidiary “Curiositäten Umlauff”, which existed between 1928 and 1942. Another skull from Papua was donated to the University of Jena in July 1932 as a gift from the Kaiser Wilhelm Institute for Anthropology, Human Heredity and Eugenics (Berlin). The third “Papua” skull as well as the three Maasai skulls can be identified from the collection of social anthropology, which Hans F. K. Günther was supervised assign.

The state of preservation of the skulls is very good; only a few places show slight weathering of the surfaces. None of the skulls appear to have ever been buried in the ground. Rather, the surfaces of all skulls indicate that they have undergone a maceration process. Only the skulls without postcranial bones are preserved. Only in two cases from Papua, the two skulls from Umlauff, are the lower jaws also present. In addition, the nasal bones are missing in all three skulls of the Maasai.

The recommendations of the Society of European Anthropologists serve as the basis for the age and sex diagnosis of the skull (Ferembach/Schwidetzky/Stloukal 1979). The sex diagnosis was based on morphological criteria on the skull (Phenice 1969; Acsadi/Nemeskeri 1970; Ubelaker 1989). The age estimate is based on the assessment of the degree of obliteration of the cranial sutures (Vallois 1937, modified after Rösing 1977) and on the degree of abrasion of the teeth (Miles 1963; Brothwell 1972; Lovejoy 1985). The age of the subadult individuals was estimated according to the developmental and eruption status of the teeth (Ubelaker 1989). The age classification was based on the levels of R. Martin (1914).

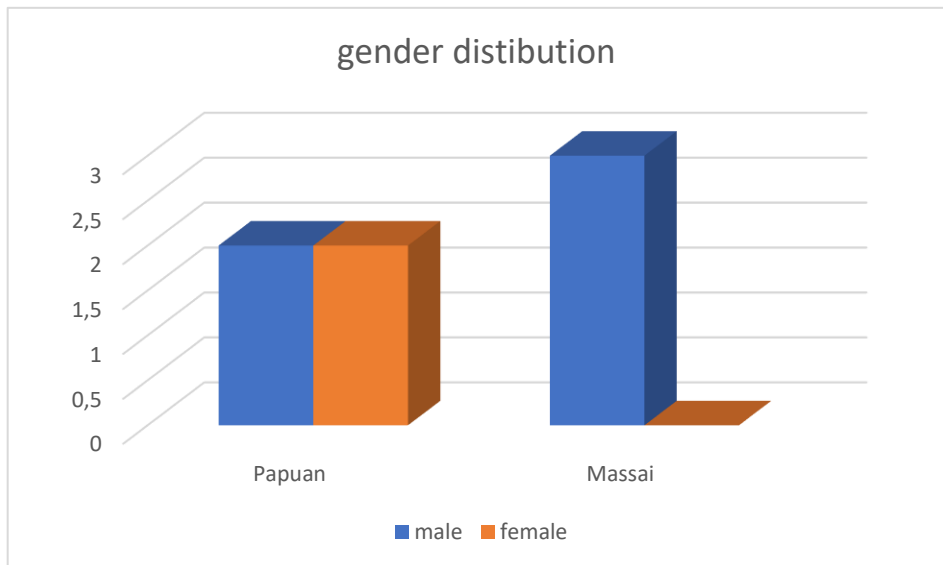
The tooth status was displayed using a tooth diagram and the associated tooth code (follows Bach 1986, pp. 91–92; Bach/Bach 1989, p. 144). The teeth are named according to the Federation Dentaire International system (quoted after Schweizer/Grimm 1988). According to the system, each tooth of the first and second dentition is provided with two separately read digits. The first indicates the quadrant in which the tooth is located and the second indicates the exact location of the tooth in the quadrant.

Pathological changes, epigenetic features and other peculiarities were recorded and as many measures and indices as possible were taken from the cranium.

## Results

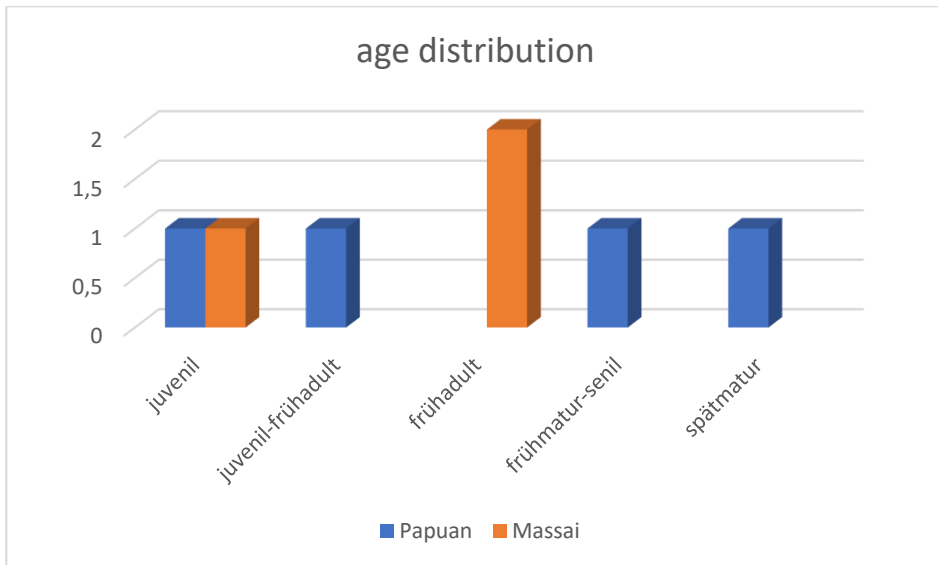
### Age and Sex distribution

Of the present seven individuals, two can be addressed as female and five as male, whereby the determination of the two juvenile individuals (SA 183 and SS 2587) can only be viewed as a tendency due to the development status of the characteristics. With regard to the assignment to origin from Papua or the Maasai, it can be said that all three individuals of the Maasai can be addressed as male, whereas among the four individuals from Papua the Sex ratio is 2: 2 (Fig. 1).



**Fig. 1: Diagram showing the sex distribution**

Looking at the age distribution of the individuals, it is noticeable that the majority come from the age groups juvenile to early adult, with five individuals. The mature to senile age groups are also represented by two individuals, whereas infantile individuals and persons of the late adult age group are completely absent. With regard to the distribution to the Maasai or Papuans (Fig. 2), it can be seen that both young and older age groups are represented by the individuals from Papua. In the case of the Maasai, however, only one juvenile and two early adult persons have been recorded. Whether this is related to the "capture" of the skulls in the possible context of the Maji-Maji revolt cannot be clarified on the basis of the skulls, but would be due to the fact that these are exclusively young men conceivable.



**Fig. 2: Diagram showing the age distribution**

Measurement data<sup>1</sup>

The measurement data were only taken for documentation of the skull; a further evaluation is not to be carried out.

Maße (Martin)	Mom. 1384	SA 6	SA 7	SA 183	A6	SA 2	SS 2587
	m	m	m	(m)	m	w	(w)
1 – Größte Hirnschädel- dellänge	18,8	17,6	18,7	16,9	17,5	16,7	16,3
2 – Glabello-Inion- Länge	17,7	16,9	18,2	16,3	16,4	15,9	15,7
3 – Glabello-Lambda- Länge	18,4	16,8	18	16,3	17,1	16,5	15,9
5 – Schädelbasislänge	9,8	10,4	9,7	9,9	10,7	10,3	9,8
7 – Länge Foramen Magnum	3,8	3,7	3,7	3,6	2,9	3,6	3,2
8 – Größte Hirnschä- delbreite	12,4	13,6	13,2	14,1	12,3	13,7	13,4
9 – Kleinste Stirnbreit	9,4	9,7	9,4	9,3	8,7	8,7	9,6
10 – Größte Stirnbreite	10,4	11,6	11,5	12	10,1	11,2	11,3

<sup>1</sup> The designations of the specified Measures according to R. Martin (1914) have not been translated.

Maße (Martin)	Mom. 1384	SA 6	SA 7	SA 183	A6	SA 2	SS 2587
	m	m	m	(m)	m	w	(w)
11 – Biauricularbreite	12,5	12,3	12,2	12,2	11,5	11,8	11,7
11b – Biradicularbreite	11,6	12,2	12	11,9	11,1	11,6	11,3
12 – Asterionbreite	10,6	10,6	11,1	10,4	9,4	9,4	10,2
13 – Mastoidalbreite	11,5	10,4	9,7	9,8	9,1	9,3	8,9
13a – Mastoidbreite	10	12,4	11,6	11,4	11,4	10,9	10,5
16 – Breite Foramen Magnum	3,1	3	3,1	3	2,5	3	2,6
17 – Basion-Bregma- Höhe	13,6	13,3	13	12,5	12,6	13,3	13,2
20 – Ohr(Perion)- Bregma-Höhe	11,1	9,9	10,7	9,8	9,5	10,1	10,3
23 – Horizontalumfang	50,9	49,7	51,3	50,9	47,8	48,5	47,4
24 – Transversalbogen	29,8	29,4	29,5	30,2	27,8	30,3	30,6
25 – Mediansagittalbo- gen	38,9	34,4	36,9	34,4	33,9	34,5	34,6
26 – Mediansagittaler Frontalbogen	13	12,1	13,4	11,9	12,5	12,8	11,6
27 – Mediansagittaler Parientalbogen	13,5	12,2	12,2	12	11,5	11,6	12,4
28 – Mediansagittaler Occipitalbogen	12,4	11,6	11,4	11,6	10,5	10,6	10,9
28/1 – Mediansagittaler Oberschuppenbogen	8,7	6,4	5,3	6,1	6,6	6,1	5,4
29 – Mediansagittale Frontsehne	11	10,7	11,5	10,5	10,9	11,2	10,1
30 – Mediansagittale Parientalsehne	11,6	10,7	11,2	10,4	10,3	10,2	10,7
31 – Mediansagittale Occipitalsehne	9,9	8,9	9,1	8,8	8,8	9	9
31/1 – Mediansagittale Oberschuppensehne	7,7	5,9	5,1	5,7	6,1	5,6	5
43 – Obere Gesichts- breite	10,3	10,9	10,1	9,9	10	9,6	9,6
44 – Biorbitalbreite	9,3	10	9,1	9,1	9	9	9,1
46 – Mittelgesichts- breite	9,4	9,5	9	8,7	8,6	10	8,9

Maße (Martin)	Mom. 1384	SA 6	SA 7	SA 183	A6	SA 2	SS 2587
	m	m	m	(m)	m	w	(w)
47 – Gesichtshöhe	10,9	x	x	x	x	9,9	x
48 – Obere Gesichtshöhe	6,9	6,9	6,1	6,5	6,1	6,7	5,8
50 – Vordere Interorbitalbreite	2,5	2,3	2,5	2,3	2,6	2,3	2,3
51 – Orbitalbreite	3,8	4,3	3,5	3,9	3,3	3,7	4
52 – Orbitalhöhe	3,6	3,3	3,1	3	3,1	3,5	3,3
54 – Nasenbreite	2,3	2,8	2,3	2,2	2,9	2,4	2,1
55 – Nasenhöhe	4,7	4,8	4,1	4,9	5,1	5,2	4,3
57 – Kleinste Breite der Nasenbeine	0,8	x	x	x	1,3	0,8	0,9
57/1 – Größte Breite der Nasenbeine	x	x	x	x	2	1,1	1,2
60 – Maxilloalveolarlänge	5,8	5,1	5,5	5,3	5,8	x	5,1
61 – Maxilloalveolarbreite	6,4	6,4	6,1	6	6,5	x	6,1
63 – Gaumenbreite	3,6	3,5	3,7	3,5	3,9	x	3,3
65 – Kondylenbreite	11,4	x	x	x	x	x	x
66 – Winkelbreite Unterkiefer	10,5	x	x	x	x	8,8	x
68 – Unterkieferlänge	7,9	x	x	x	x	7,2	x
69 – Kinnhöhe	2,9	x	x	x	x	2,1	x
70 – Asthöhe des Unterkiefers	6,4	x	x	x	x	5,7	x
71 – Astbreite Unterkiefer	3,3	x	x	x	x	3,4	x
79 – Astwinkel	78°	x	x	x	x	68°	x
I1 – Längen-Breiten-Index (M8/M1)	68,9	77,3	70,6	83,4	70,3	82	82,2
I2 – Längen-Höhen-Index (M17/M1)	72,3	75,6	69,5	74	72	79,6	81
I3 – Breiten-Höhen-Index (M17/M8)	109,7	97,8	98,5	88,7	102,4	97,1	98,5



Maße (Martin)	Mom. 1384	SA 6	SA 7	SA 183	A6	SA 2	SS 2587
	m	m	m	(m)	m	w	(w)
I4 – Längen-Ohr-Bregma-Höhen-Index (M20/M1)	59	56,3	57,2	58	54,3	60,5	63,2
I12 – Transversaler Frontal-Index (M9/M10)	90,4	84,3	81,7	77,5	86,1	77,7	85
I13 – Transversaler Frontoparietalindex (M9/M8)	75,8	71,3	71,2	66	70,7	63,5	71,6
I16 – Sagittaler Frontoparietal-Index (M27/M26)	103,8	100,8	91	100,8	92	90,6	107
I22 – Sagittaler Frontal-Index (M29/M26)	84,6	88,4	85,8	88,2	87,2	87,5	87,1
I24 – Sagittaler Parietal-Index (M30/M27)	85,9	87,7	91,8	86,7	89,6	97,9	86,3
I25 – Sagittaler Occipital-Index (M31/M28)	79,8	76,7	79,8	75,9	83,8	84,9	82,6
I26 – Krümmungsindex Oberschuppe (M31/1/M28/1)	88,5	92,2	96,2	93,4	92,4	91,8	92,6
I33 – Index Foramen Magnum (M16/M7)	81,6	81,1	83,8	83,3	86,2	83,3	81,3
I42 – Orbital-Index (M52/M51)	94,7	76,7	88,6	76,9	93,9	94,6	82,5
I46a – Interorbital-Index (M50/M44)	26,9	23	27,5	25,3	29	25,6	25,3
I48 – Nasalindex (M54/M55)	48,9	58,3	56,1	44,9	56,9	46,2	48,8
I52/2 – Transversaler Nasenbein-Index (M57/M57/1)	x	x	x	x	65	72,7	75
I63 – Mandibula-Astindex (M71/M70)	51,6	x	x	x	x	59,6	x
I64 – Mandibula-Breiten-Index (M66/M65)	92,1	x	x	x	x	x	x
I72 – Frontoorbital-Index (M9/M43)	91,3	89	93,1	94	87	90,6	100

### Pathological changes

Pathological changes can be detected in five of the seven skulls. Only on the two skulls SA 6 and A 6 could no pathologies be found.

The most common pathological abnormalities are changes in the teeth. There are caries loads in four individuals. With a number of five affected teeth out of 49 assessable, the intensity is 10.2%. Another pathology in the dental apparatus in the case of SA 2 is the intravital loss of 21 teeth. In the upper jaw this led to a complete regression of the alveoli and in the lower jaw in the area of teeth 33–34 there are residues that can be interpreted as an indication of cyst formation (Fig. 9).

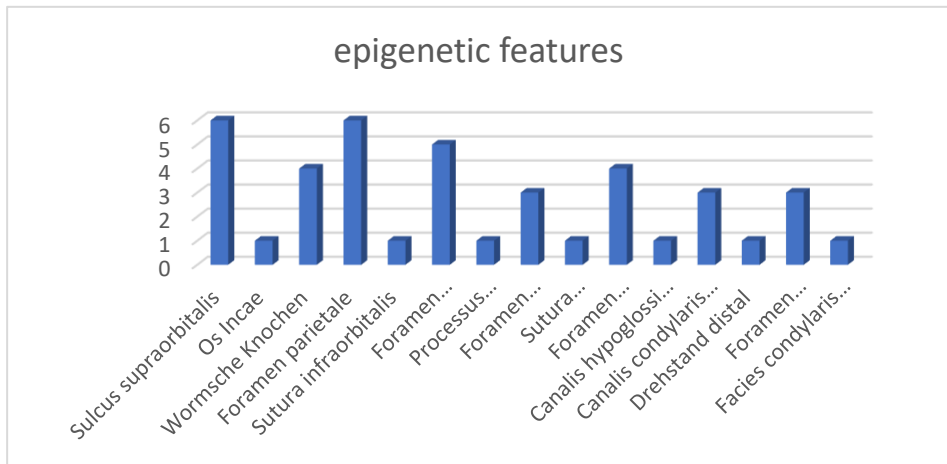
The two skulls SA 2 and SA 7 have a bent nasal septum.

As further pathological changes, deformities can be found in three skulls from Papua (Mom 1384, Sa 2 and SS 2587). While the deformations of the skulls Sa 2 and SS 2587 are mainly in the area of the occipital bone and can be of natural origin, in the case of Mom. 1384 there appears to be an artificial deformation. This is illustrated by the formation of a sharp line from the linea temporalis in an arc shape over the os parietale to the crista supramastoidea. This shows that the surface of the area enclosed by it is also significantly smoother than the rest of the skull. There are also bluish discolorations in the area of the sutures. This could be due to a deformation caused by two plates attached to the side of the head in infancy (Fig. 4).

The last observed pathology is also on Skull Mom. 1384. It is a hole defect in the right sphenoid bone, which penetrates the interior of the viscerocranium as far as the left maxillary sinus (running obliquely from above) and has a diameter of 4 mm. This defect could be caused by a long, narrow object that was stabbed or a small-caliber bullet. It cannot be determined whether this injury is related to the death of the person or whether it occurred shortly after the death. However, there is no evidence of wound healing (Fig. 4).

### Epigenetic traits

Epigenetic peculiarities are present in all seven skulls. A total of 15 different features could be observed (Fig. 3). The supraorbital sulcus and the parietal foramen appear most frequently, with evidence of six skulls each. Foramen zygomaticofaciale accessorium in five skulls and Worm's bones in the sutura lambdoidea and foramen mastoideum in four skulls. Foramen infraorbitale accessorium, canalis condylaris intermedium and foramen supraorbitale occur on three skulls. The remaining features could only be observed in one case at a time.



**Fig. 3: Diagram showing the frequency of epigenetic features on the skull**

#### Particularities

Particularities could be observed in two skulls from Papua (Mom. 1384 and SS 2587) and one of the Maasai (SA 183).

The two skulls from Papua are each an ornament of the skull. In 1384 incisions in the form of lines and angles were made on the frontal bone of Skull Mom. According to written records, these were made with a stone tool (Fig. 4). On the other hand, the surface of the SS 2587 skull was completely covered with a black, soot-like mass, most of which is still preserved today (Fig. 10). On these were drawn white/yellow arc-shaped lines over the entire skull. In between there are remnants of a red color, which, however, no longer show any patterns. What exactly the paint jobs are about cannot be said.

Another peculiarity of the Maasai skull SA 183 shows several incision marks on both occipital condyles (Fig. 7). These could only have occurred after the death of the individual, as these areas are covered by the atlas during his lifetime. It can therefore be assumed that the incision marks occurred in the course of maceration when the atlas was separated from the skull.

#### Catalog

The state of preservation of the individual skulls is shown in graphics, with the gray areas describing the completely present and the areas marked with lines describing the fragmentarily preserved skeletal parts. In addition, the qualitative state of preservation is described. In addition, Sexe as well as estimated age and height are given. Furthermore, the tooth status, pathological changes, epigenetic characteristics and special features are noted.

## List of abbreviations

DD	Rotation stand distal
E	tooth in breakthrough
I	intravital loss
ISO	isolated tooth
KB	Caries buccal
KD	Caries distal
KL	Caries labial
KM	Caries mesial
KP	Caries profunda
O	completely erupted healthy tooth
(O)	Tooth treatment (from the beginning of mineralization to the beginning of root growth)
X	post-mortem loss
-	can not be assessed

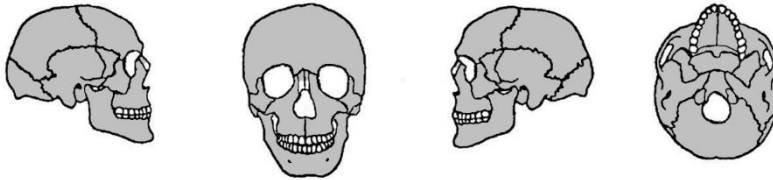
## Age groups:

Neonatus	0 Years
infans I	0–6 Years
infans II	7–14 Years
juvenil	15–19 Years
frühadult	20–29 Years
spätadult	30–39 Years
frühmatur	40–49 Years
spätmatur	50–59 Years
senil	ab 60 Years

## Dental scheme according to the Federation Dentaire International:

right								left							
18	17	16	15	14	13	12	11	21	22	23	24	25	26	27	28
			55	54	53	52	51	61	62	63	64	65			
			85	84	83	82	81	71	72	73	74	75			
48	47	46	45	44	43	42	41	31	32	33	34	35	36	37	38

*Skull from Papua – Mom. 1384, 644 – Buy from Umlauff (Hamburg)*



*Sex:* male

*Age:* juvenil-frühadult (17–25 Years)

*Tooth status:*

K P X	X	O	X	X	X	X	X	X	O	K L	X	X	O	X	O
O	O	X	X	X	X	X	X	X	O	X	X	X	X	O	O

*State of preservation:* The bone surface is well to slightly weathered, only the cranium is present.

*Pathologica:* Caries profunda at 18, caries labial at 22, hole defect in the right sphenoid bone which penetrates the interior of the viscerocranium up to the left maxillary sinus (running obliquely from above) – diameter 4 mm, on both sides formation of a sharp arc from the linea temporalis via the parietal bone to the supramastoid crest (height difference to the pars squamosa 3 mm) – the surface of the area enclosed is significantly smoother than the rest of the skull and there are bluish discolorations in the area of the sutures.

*Epigenetic traits:* Sulcus supraorbitalis on both sides, os incae, 2 Worm's bones in sutura lambdoidea, foramen parietale – 1 right and 2 left, sutura infraorbitalis on both sides, foramen zygomaticofaciale accessorium – 2 each on both sides, processus marginalis zygomaticus left, foramen infraorbital accessorium on both sides, faint remnants of a supramastoid suture on both sides.

*Particularities:* Incised decoration of lines and angles on the frontal bone, mandible pierced on both sides – probably for attachment, inscription: in pencil near the foramen magnum “Papua”, with ink on the occipital bone “Mom. 1384” and “644”, all three inscriptions in different handwriting, also on the mandible “Mom. 1384”; on the leaflet of the Phyletic Museum is next to cat. no. “Mom. 1384 Primates” also the inscription “Hominidae. Homo sapiens. Carved Papua. Umlauff, Hamburg. 644”.



Fig. 4 a–e: Skull Mom. 1384. a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis sinistra; d – Norma lateralis dextra; e – Detail Norma frontalis

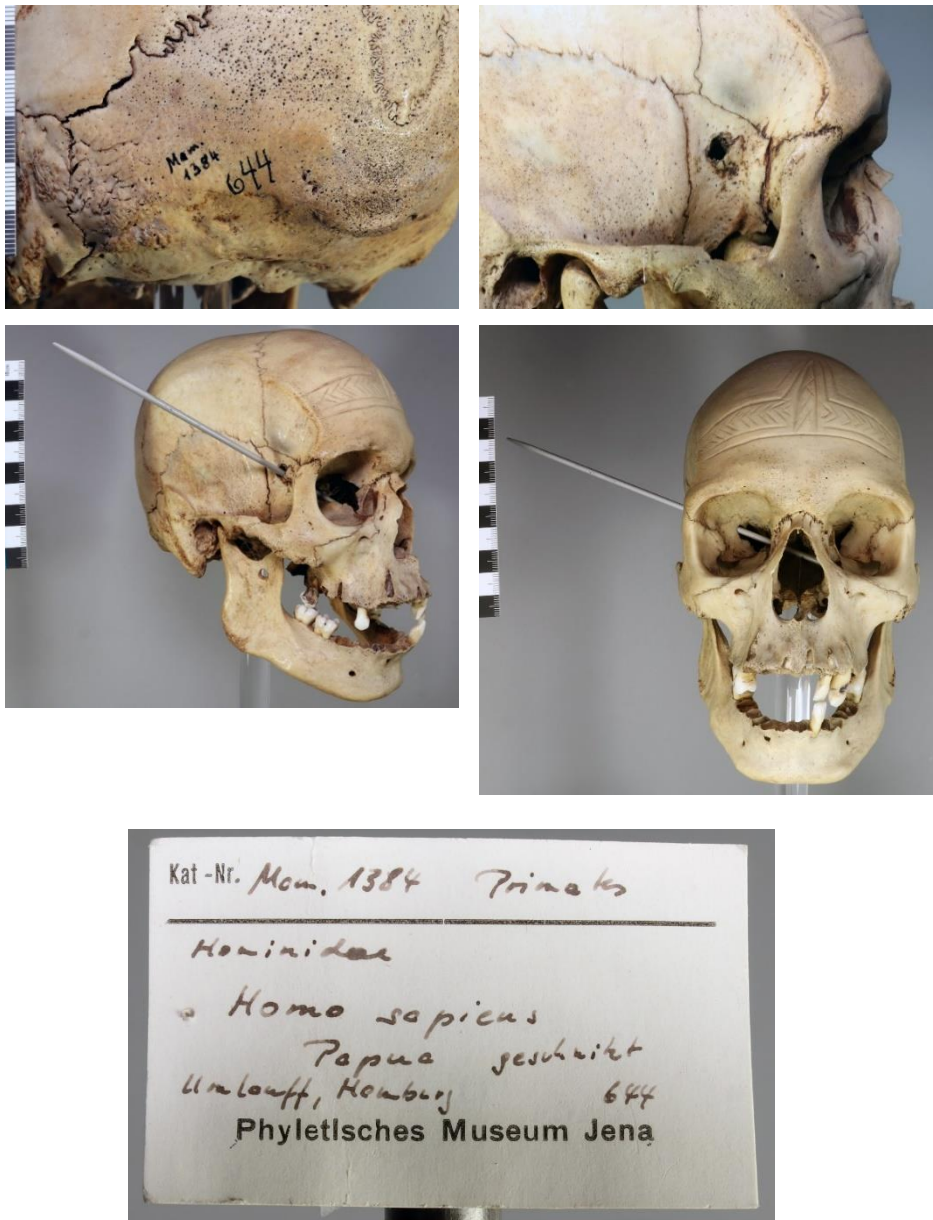
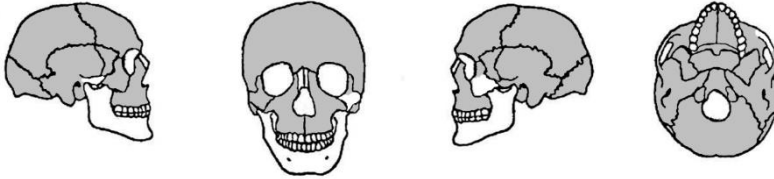


Fig. 4 f-j; Skull Mom. 1384. f – Detail Norma lateralis sinistra; g – Detail Norma lateralis dextra; h – Norma lateralis dextra; i – Norma frontalis; j – Package insert

*Skull "Masai" – SA 6*

*Sex:* male

*Age:* frühadult (20–29 Years)

*Tooth status:*

O	O	O	O	O	X	X	X	X	X	X	X	O	O	O	X

*State of preservation:* The bone surface is very well preserved and shows no signs of weathering, the mandible and nasal bones are not preserved.

*Pathologica:* /

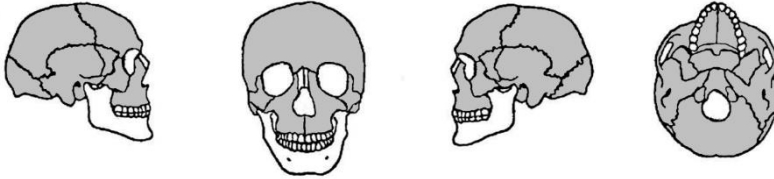
*Epigenetic traits:* Parietal foramen on both sides; 3 Worm's bones in the suture lambdoidea – 1 left, 2 right; weak supraorbital sulcus on both sides; Mastoid foramen on both sides, bipartite hypoglossal canal on both sides.

*Particularities:* There is an ink inscription on the left parietal bone: "SA 6/Masai/ex occid. Ms Kilima Njaro/(W. Kuhnert Igt.)/No. 1"; in several places there are small pencil crosses to mark measuring points on the skull.





Fig. 5 a–e: Skull SA 6. a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis dextra; d – Norma lateralis sinistra; e – Detail Os parietale sinistra

*Skull "Masai" – SA 7*

*Sexe:* male

*Age:* frühadult (20–29 Years)

*Tooth status:*

X	O	O	O	X	X	X	X	X	X	X	O	K	P	X	O	X

*State od preservation:* The bone surface is very well preserved and shows no signs of weathering, there is a moisture stain on the left parietal bone near the sutura lambdoidea, the mandible and nasal bones are not preserved.

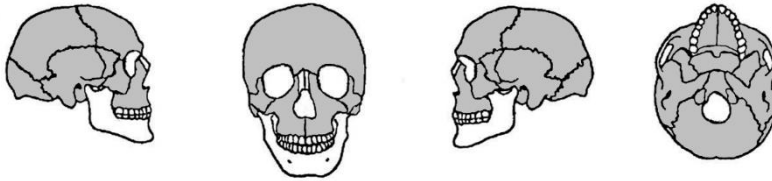
*Pathologica:* Tooth 25 is only a remnant of the root due to a deep caries; the nasal septum is bent to the left.

*Epigenetic traits:* Right parietal foramen; Supraorbital sulcus on both sides; 4 Worm's bones in the lambdoid suture – 1 left, 3 right; Intermediate condylar canal on the left.

*Particularities:* There is an ink inscription on the left parietal bone: "SA 6/Masai/ex occid. Ms Kilima Njaro/(W. Kuhnert Igt.)/No. 2"; many of the larger foramen are clogged with cotton wool.



Fig. 6 a-e: Skull SA 7. a – Norma frontalis; b – Norma occipitalis; c – Norma laterals dextra; d – Norma lateralis sinistra; e – Detail Os parietale sinistra

*Skull "Massai" – SA 183*

*Sex:* rather male

*Age:* juvenil (15–19 Years)

*Tooth status:*

X	O	K	P	O	O	O	O		O	O	D	D	O	O	K	P	O	X

*State of preservation:* The bone surface is very well preserved and shows no signs of weathering, the mandible and nasal bones are not preserved.

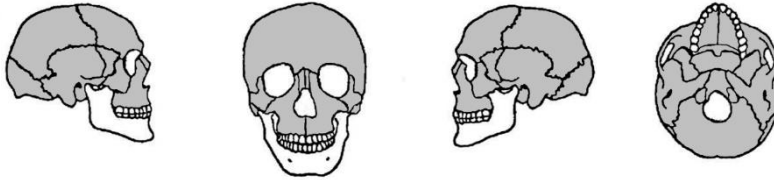
*Pathologica:* Caries profunda at 16 and 26.

*Epigenetic traits:* Turning position distal at 23; Supraorbital sulcus on both sides; Supraorbital foramen on both sides; Foramen zygomaticofaciale accessoryium on both sides; Canalis condylaris intermedium on both sides; Mastoid foramen on both sides.

*Particularities:* There is an ink inscription on the left parietal bone: “SA 183/” Massai “/Igt. v. Goetzen”; several incision marks on both occipital condyles.



Fig. 7 a–f: Skull SA 183. a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis dextra; d – Norma lateralis sinistra; e – Detail Condyli occipitalis; f – Detail Os parietale sinistra

*Skull "Papua" – A 6*

*Sex:* male

*Age:* frühmatur-senil (older than 45 Years)

*Tooth status:*

O	O	O	X	O	X	X	X	X	X	X	WR	X	X	X	X
---	---	---	---	---	---	---	---	---	---	---	----	---	---	---	---

*State of preservation:* The bone surface is very well preserved and shows no signs of weathering, the mandible is not preserved.

*Pathologica:* /

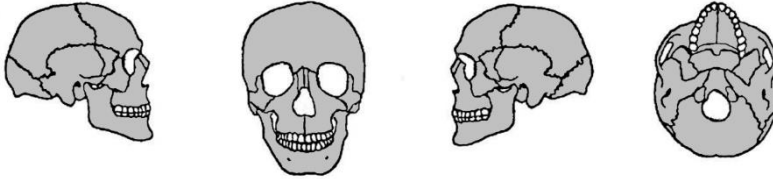
*Epigenetic traits:* Supraorbital foramen – 2 right, 1 left; Infraorbital accessory foramen on both sides; Accessory zygomaticofacial foramen on both sides; Canalis condylaris intermedium left; Right mastoid foramen; Right parietal foramen.

*Particularities:* There is an ink inscription on the left parietal bone: "A 6."; the symbol for male is drawn in pencil on the frontal bone; slight discrepancy in age estimation – after teeth 35–45 and after obliteration of sutures 60–69.





Fig. 8 a-e: Skull A 6. – a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis dextra; d – Norma lateralis sinistra; e – Detail Os parietale sinistra

*Skull "Papua" – SA 2*

*Sex:* female

*Age:* spätmatur (50–59 Years)

*Tooth status:*

I	I	I	I	I	X	X	I	I	X	X	I	I	I	I	I
I	I	X	X	X	X	I	I	I	I	I	I	X	X	X	I

*State of preservation:* The bone surface is very well preserved and shows no signs of weathering, the mandible is not preserved.

*Pathologica:* intravital loss of 11, 14–18, 21, 24–28, 31–34, 38, 41–42, 47–48; in area 33–34 probably with cyst formation and in the area of the maxilla with complete regression of the aveoli; the nasal septum is bent to the left.

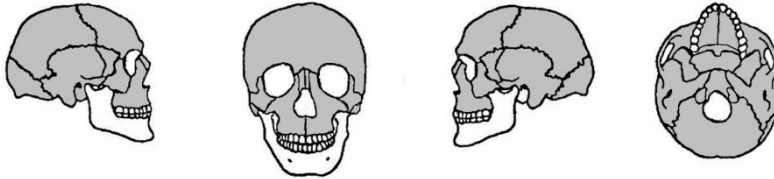
*Epigenetic traits:* Supraorbital sulcus on both sides; Supraorbital foramen on both sides; Left infraorbital accessory foramen; Foramen zgomatofaciale accessorium on both sides; Parietal foramen – 1 left and 2 right; Facies condylaris bipartitia left; Mastoid foramen 2 on either side.

*Particularities:* There is an ink inscription on the left parietal bone: “SA 2/” “Papua”; skull slightly deformed in the area of the occipital bone.





Fig. 9 a-e: Skull SA 2. a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis dextra; d – Norma lateralis sinistra; e – Detail Os parietale sinistra

*Skulll "Papua" – SS 2587/W291*

*Sexe:* rather female

*Age:* juvenil (15 Years +- 36 Month)

*Tooth status:*

(O)	O	X	X	X	X	X	X	X	X	X	X	X	O	X	(O)

*State of preservation:* The bone surface is very well preserved and shows no signs of weathering, but is largely painted over with paint, the mandible has not been preserved.

*Pathologica:* The skull is badly deformed in the area of the occipital bone and the two parietal bones.

*Epigenetic traits:* Supraorbital sulcus on both sides; Foramen zygomaticofaciale accessory on both sides; Parietal foramen on both sides; 1 Worm's bone in the left lambdoid suture.

*Particularities:* On the left parietal bone there is an ink inscription: "W291", on the glabella in white the inscription "SS:/2587" whereby the 7 is almost completely peeled off and on the os occipitale there is the inscription "SS/2587" in Indian ink outlined in red; the skull is almost completely covered by a black layer (soot-like structure), on which there are red and white paint residues in the form of curved lines over the entire skull; on the skull there is a note of the curiosity circulating f. Owner: Gustav Umlauff, Hamburg 3, Johannisbollwerk 10, with the inscription "42 Skull/Ramu Sepik/Delta N.G.", on the back "S.S. 2587".



Fig. 10 a-e: Skull SS 2587. a – Norma frontalis; b – Norma occipitalis; c – Norma lateralis dextra; d – Norma lateralis sinistra; e – Detail Norma frontalis



Fig. 10 f-i: Skull SS 2587. f – Detail Os occipitalis; g – Detail Os parietale sinistra; h, i – Package insert

### 3 Documentation of the Provenances Determined

#### 3.1 Research on the skulls from the osteological collection

*Research on the origin of the skulls from the osteological collection before the skulls were handed over to Jena*

The results presented in this chapter on the skulls from the osteological collection were created within the framework of the work contract and thus at a time when the skulls had not yet been handed over to Jena and anthropologically processed. For this reason, only the little, incomplete information from the inventory lists of the collection, which was made in 2011 as part of the relocation of the osteological collection to the depot of the Thuringian State Office for Monument Preservation and Archeology, was available for the analyzes. The results of the research after processing the skull in Jena are presented in the next chapter.

## Research on the allocation of human skulls from the osteological collection

The inventory list does not offer any solid reference points for research on object biographies and provenances. The only option left was to look in the archival sources and the collection inventories for skulls that could possibly be meant.

The search for reports from the University of Jena to the nutritors with possible references to human skulls with a colonial background in finding aids of the State Archives Thuringia – Main State Archive Weimar and State Archive Gotha – as well as in the archive portal Thuringia showed that the search on the files of the University Archives Jena and documents in the collections of the University of Jena was to focus. From November 9th to December 9th, 2020, relevant files from all relevant fonds of the University Archives Jena were viewed, as well as inventories on collections. Subjects relating to “Hereroland” were not taken into account here because L. Förster and H. Stoecker had already evaluated and published it in their project (Förster/Stoecker 2016).

## Zoological Institute and Phyletic Museum 1909–1933

Ludwig Plate did not submit any work reports for the years 1909/10 and 1911/12. For 1910/11 he wrote a very brief report for the Zoological Institute and the Phyletic Museum, which does not contain any information on specific additions (UAJ, Best. C, No. 528, 21r). He was only ready to compile an inventory of the zoological institute after the university conference on 20./21. May 1913 about his refusal to compile the inventory and inventory required by the State Ministry (UAJ, Best. C, No. 635, 25–27), had advised, and asked him on June 1, 1913 to at least prepare the inventory (UAJ, Best. C, No. 635, 41v). Until 1916, his reports lacked information about specific additions to the collections, which made research difficult.

However, as part of the preparation for the opening ceremony of the Phyletic Museum on April 10, 1912, he asked for a further medal for “Factoreibreitzer Hans Paschen in Longji, Cameroon” (UAJ, Best. C, No. 642, 35r),<sup>2</sup> who had supported the museum with donations of preparations. On the occasion of a donation from Paschen – i.a. Skeletons “of elephants and hippopotamus” – asked Plate again on March 23, 1913 to be awarded a higher order class (UAJ, Best. C, No. 642, 126r), because Paschen was not satisfied with his previous honors. However, Plate made no mention of human bones. But the account book for raw skeletons of the Phyletic Museum does<sup>3</sup> for October 1911 as acquired by Paschen or given as a gift to: “No. 292 Bakoko Negroes ♂” This means correctly: “the skeleton of a Bakoko-speaking woman.” (Förster/Stoecker 2016, p. 87).

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<sup>2</sup> Hans Paschen had made a name for himself as a gorilla hunter. He had shot the “giant gorilla” of the Umlauff company, s. Lange 2005, pp. 183–188, p. 206.

<sup>3</sup> Konto-Buch für Rohskelette, Phyletisches Museum Jena, 1911.

### Collection directories and guides

In contrast, the purchase from the collection of Hans Wilhelm Friedenthal included,<sup>4</sup> which Plate mentioned on May 15, 1917 in his annual report for 1916/17,<sup>5</sup> a human skull from Cameroon. It is in the catalog of the permanent collection of the Phyletic Museum Jena under no. 1047 as “Skull e. Cameroon Negroes” from the Friedenthal collection.<sup>6</sup> This catalog, which was created in 1927, also shows the extent of Paschen’s donations.<sup>7</sup> The skull from Cameroon is now in the anthropogenesis room of the Phyletic Museum,<sup>8</sup> signature PMJ Mam 1834.

### Anatomical Institute and Anatomical Collection

There was an overlap between the collections of the Zoological Institute and the Anatomical Institute, because both had grown out of the ducal museum in the Jena City Palace (Uschmann 1959, pp. 11–12). For the opening of the Phyletic Museum on July 30, 1908, Haeckel borrowed animal skeletons from the anatomical institute (Uschmann 1959, p. 169). In addition, the research areas of the directors Carl Gegenbaur, Ernst Haeckel, Max Fürbringer and Friedrich Maurer<sup>9</sup> touched one another.<sup>10</sup> The overlaps are from the “Vermehrungsbuch” of the Zootomic Collection created under Gegenbaur<sup>11</sup> can be seen, which was handed over to the Phyletic Museum in 1976 with the animal skeletons. By virtue of its mandate, the anatomical institute had a large number of human bones at its disposal and had to constantly strive to obtain corpses for medical training and teaching. The respective director repeatedly complained of a “lack of corpses” despite the existing delivery regulations. The only question to be asked was about accesses with a colonial background.

On July 22, 1893, Max Fürbringer showed no interest in human remains from the Holub collection (UAJ, Best. C, No. 2005, 13). But Dr. E [ugene RB.] V. Ried, on July 12, 1894 “on behalf of my father [...] for the collections of the anatomical museum”, including “Skeleton of a child from the west coast of South America

<sup>4</sup> Hans Wilhelm Friedenthal (1870–1942) was a lecturer in anthropology at the University of Berlin from 1902 to 1916, see personal database Scientific relations in the 19th century between Germany and Russia in the fields of chemistry, pharmacy and medicine, <http://drw.saw-leipzig.de/30288> (6.1.2021).

<sup>5</sup> “The museum acquired a large number of skulls and Neanderthal casts from Professor Friedenthal [...]” UAJ, Best. C, Nr. 534, 16r.

<sup>6</sup> Phyletisches Museum Jena, Katalog der Schausammlung des Phyletischen Museums Jena [1927–2003]. [1927–2003].

<sup>7</sup> Gorilla preparations from Paschen in the Phyletic Museum are listed in Cooper 2017, p. 440.

<sup>8</sup> Kindly provided by B. L. Bock on January 6, 2021.

<sup>9</sup> Please refer Hoßfeld 2005, pp. 160–161. Haeckel’s friend Friedrich Maurer (1858–1936) was director of the Jena anatomy from 1901 to 1932.

<sup>10</sup> Max Fürbringer (1846–1920) student of Haeckel and Gegenbaur, was professor of anatomy in Jena from 1888–1901, Fröber/Pester 2003, p. 63, p. 149.

<sup>11</sup> Anatomisches Institut Jena, Zootomische Sammlung: Vermehrungsbuch 1860–1919. Available at: [https://collections.thulb.uni-jena.de/receive/HisBest\\_cbu\\_00032656](https://collections.thulb.uni-jena.de/receive/HisBest_cbu_00032656) (4.12.2020) Siehe Fröber/Pester 2003, p. 127.

(Korhammers<sup>12</sup> collection) [...] Skull (of a young girl?) [...] Skull of a woman (with glass box) [...] 2 images of the Algodon Bay.” (UAJ, Best. S, Abt. XXXVIII, No. 50, 1858–1900) Parts of the fragmentary child's skeleton are now in the Phyletic Museum under the signature PMJ Mam 361.<sup>13</sup>

These donations Franz Jordan v. Ried's<sup>14</sup> came from South America. Ried had presented Peruvian skulls at the 23rd meeting of German naturalists and doctors in Nuremberg in 1845 – followed by Ernst Freiherr von Bibra, who presented Peruvian mummies (Gesellschaft Naturforscher/Ärzte 1846, p. 203) – but was never in South America himself. The pictures of the Algodon Bay attached to the donation are reminiscent of Bibra's treatise “The Algodon Bay in Bolivia”, in which he found skulls that he had dug up in a tomb in this bay with finds by his friend Aquinas Ried<sup>15</sup> and Korhammer's comparison (v. Bibra 1852, p. 114).

Annual reports of the anatomical institute are continuously available for 1903/4 to 1916/17. From March 31, 1905, Maurer submitted detailed and extensive access lists for the anthropotomic, ontogenetic and zootomic collections (UAJ, Best. C, No. 522, 7–16). They are missing from the annual report for 1909/10 (UAJ, Best. C, No. 527, 6–12). This may be related to the gradual move to an extension. Human bones with a colonial background were not mentioned in the lists.

### Collection directories

The “Vermehrungsbuch” of the Anatomical Collection and General Anatomy, which originated during the period in the office of Gegenbaur,<sup>16</sup> lists for the year 1860 under no. 1108 the skull of “an indigenous peoples” from the “Algodon Bay in Bolivia”, under no. 1109 and 1110 “Javanese skull” and 1111 “Balinese skull”. (“Vermehrungsbuch” was the Thuringian term for an accession register.) The latter three were gifts from the Grand Duke of Saxonie-Weimar-Eisenach. In 1894, no. 2128 from the donation v. Ried's, which came from the Korhammer collection, “skeletal parts of a child from the west coast of South America”. 1896 appear under nos. 2220, 2 and 3, “Indian skulls from Point Edwards” and “Windmill Point (Coll. Lieb).” In 1904 an “Inca skull” without a lower jaw (no. 2559) was added. In 1919 a “Siamese skull” (No. 3056) was added. In 1927, Dr. med. Eilers (see Förster/

<sup>12</sup> In 1855, the gold and silver separator Hermann Korhammer, Augsburg, donated Peruvian collection items to the historical district association in the administrative district of Swabia and Neuburg. February 1855, p. 286. On September 5, 1866, he was elected voter in the community replacement election, Augsburger Tagblatt, September 6, 1866, p. 2109.

<sup>13</sup> Kind communication from B. L. Bock.

<sup>14</sup> Franz Jordan v. Ried (1810–1895) also headed the Jena Surgical Clinic as Professor of Surgery from 1846–1884. On the occasion of his 60th doctoral jubilee in 1892 he was ennobled and received the Grand Cross of the Ernestine House Order, siehe Keßler 2018, p. 11.

<sup>15</sup> For the doctor, natural scientist and composer Aquinas Ried (1810–1869) see Fonck 1927, pp. 3–26. I would like to thank Katharina Pawlitzky, ThULB, for personal support with the literature research made difficult by the lockdown.

<sup>16</sup> UAJ, Best. S. Abt. XXXVIII, SV XV, ca. 1858–1943. Available at: SV XV – Digitale Bibliothek Thüringen (db-thueringen.de), please refer Fröber/Pester 2003, p. 126.



Stoecker 2016, pp. 71–72) a “Herero skull, female, about 18 years old” (No. 3153) and a “Hottentot skull, male, about 17 years old” (No. 3154). In 1912 Leonhard Schultze-Jena added a male (No. 3195) and a female Herero skeleton (No. 3196) to the collection.

The Indian skull from the Karl Theodor Liebe’s collection<sup>17</sup> can be found under the shelfmarks OCP 028 and OCP 090 in the Anatomical Collection.<sup>18</sup>

A very large fond “Rassenschädel” is documented in the “Catalog des Großherzoggl. anatomical museum I. Anthropotomic collection:” (UAJ, Best. S, Abt. XXXVIII, SV XVI) Numbers 196 to 357 include skulls of people from Madura, Sumatra, the Moluccas, Chinese, Bengalese, Burma, Cambodia, “New Holland”, Greenland, Hindus, Eskimos, so-called Hottentots, Papuans, and Indians from North and South America, Mozambique and Brazil. (Numbers 269 to 271 relate to the death masks of Napoleon I and Voltaire.) The investigation had to be limited to checking whether skulls in this directory could be assigned to the names given in the excerpt from the inventory of the osteological collection. Graf von Goetzen and Wilhelm Kuhnert do not appear here either, nor do the “Maasai.”

### Ethnographic Museum

The Ethnographic Museum emerged from the donation of the brothers Hermann and Robert Schlagintweit to Grand Duke Carl Alexander of Saxony-Weimar-Eisenach. In 1863 they had given him part of their very extensive collection that had grown out of their research trip through India and Central Asia.<sup>19</sup> This collection was housed in Jena Castle and transferred to the university, from whose existing collections it was supplemented.<sup>20</sup> However, while the anatomy and zoology collections that emerged from the Grand Ducal Museum evolved with the requirements of research and teaching, the Ethnographic Museum was not linked to a clearly defined university research area, but primarily served the maintenance of colonial interests. This, and not just the lack of space, can be seen as the background to the waning interest of the university even before the First World War, which is reflected in the annual reports.

Annual reports of the Ethnographic Museum lie for the years 1903/4 (UAJ, Best. C, No. 521, 29r, o. D., Dove), 1904/5 (UAJ, Best. C, No. 522, 33r, 3. Juni 1905, Dove), 1905/6 (UAJ, Best. C, No. 523, 25r, 19. Mai 1906, Dove), 1906/7 (UAJ, Best. c, No. 524, 29r, 10. Juni 1907, Dove) and 1909/10 (UAJ, Best. C, No. 524, 35r, 28. Juni 1910, v. Zahn). Karl Dove does not mention the access of

<sup>17</sup> Karl Theodor Liebe (1828–1894) had been a high school teacher in Gera since 1860, as well as a “mapping geolog”, v. Knorre 1983, p. 55.

<sup>18</sup> Kind message from U. Löttsch. Research on the collection Franz Jordan v. Ried’s introduced B. L. Bock.

<sup>19</sup> For the Schlagintweit brothers see v. Brescius 2019. Brescius does not consider her donation to Grand Duke Carl Alexander or her contacts in Thuringia.

<sup>20</sup> For the history of the Ethnographic Museum see Förster/Stoecker 2016, pp. 82–94.



human bones<sup>21</sup> nor Gustav v. Zahn.<sup>22</sup> The file kept at the Ethnographic Museum from 1896 to 1913 (UAJ, Best. C, No. 802) contains the donations from “Hereroland”, which have already been examined in detail in the course of research into the scalp of a Herero.<sup>23</sup> The director of the Eschweiler mining association Eduard Othberg<sup>24</sup> offered on October 1, 1899 (UAJ, Best. C, No. 802, 25r) a gift of ethnographic objects that did not include human bones. The State Ministry, *Departement des Cultus*, honored this donation on March 22, 1900 with the announcement of the award of the Knight's Cross 1st Department of the Order of the Falcons to Othberg.<sup>25</sup>

The dissolution of the Ethnographic Museum began as early as 1913/14.<sup>26</sup> On January 7, 1914, it was found that the collection “got into disorder as a result of being rearranged twice without expert supervision.” Tooth in the geographical museum. the historian of religion Hans Haas<sup>27</sup> was responsible for the further cataloging, sorting and transport of the collection, the “10,000 numbers” (Pittelkow 2018, p. 50) included. Lists of the objects that were acquired or taken over by the various institutions referred to in 1920 are in the file. However, they do not contain any information on human bones.

It is therefore not possible to assign the bones specified in the list to the fonds of the Ethnographic Museum. The author's research in the Thuringia archive portal, archive portal D, the archive guide for German colonial history and the databases of the Secret State Archives of Prussian Culture Owners and the Federal Archives did not provide any further information on contacts Wilhelm Kuhnert's or Count von Goetzen's to Sachsen-Weimar-Eisenach.

#### Seminar/establishment/institute for anthropology and ethnology

Bernhard Struck,<sup>28</sup> since 1936/38 professor of anthropology and ethnology at the University of Jena, determined a total of “1063 numbers” with detective skills (Hoßfeld 2000, p. 77) the former ethnographic collection and brought it together

<sup>21</sup> Karl Dove (1863–1922) was associate professor of geography from 1899 to 1907 and thus custodian of the Geographical Museum. In 1892/94 he made research trips to Africa, please refer FLAMME 2007.

<sup>22</sup> Gustav v. Zahn (1872–1876) was Schultze's substitute for a professorship from 1909 and from 1911 he held a salaried associate professor for geography and meteorology in Jena. From 1920 to 1939 he was a full professor of geography, please refer Eberle 2021.

<sup>23</sup> Förster/Stoecker 2016, p. 91.

<sup>24</sup> Eduard Othberg (1841–1919) was miner of the Eschweiler Mining Association from 1877–1910. <https://www.eschweilergeschichtsverein.de/eschweiler/strassennamen.html> (6.1.2021).

<sup>25</sup> *Ibid.*, 38r.

<sup>26</sup> Concept without signature, UAJ, Best. C, Nr. 803, 10–12.

<sup>27</sup> Hans Haas (1868–1934) was Associate Professor of Theology at the University of Jena from October 1, 1913 to March 31, 1915. Before that, he was pastor of the Tokyo-Yokohama parish of the Landeskirche of the Grand Duchy of Saxony-Weimar-Eisenach and Director of the Shinkyō-Shin-gakko University, Tokyo. Haas, Professor of Religious History at the University of Leipzig from 1915–1934, sought for the rapprochement between Christianity, Buddhism, Confucianism and Islam.

<sup>28</sup> For Bernhard Struck see Pittelkow/Hoßfeld 2016, pp. 65–82.

in his institute. He expanded it and also the anthropological teaching collection. In 1953 the anthropological collection contained “in addition to hundreds [...] not yet cataloged items” (ibid. 2018, p. 50) 1100 Skulls. The course in ethnology was discontinued in 1960 (Pittelkow 2018, p. 92). The accommodation and scientific maintenance of the ethnographic collection turned out to be problematic. In the course of the III. In 1969 it was given on permanent loan to what was then the Völkerkundemuseum Leipzig (now the Grassi Museum).

Bernhard Struck’s hand-held files were handed over to the University Archives Jena in 2013 – after the anthropological work area in the former Institute for Human Genetics and Anthropology was given up in 2011 – together with other anthropological documents without a submission list. Folder No. 76 contains correspondence and notes from Struck regarding the dissolution of the ethnographic collection and its delivery to the Völkerkundemuseum Leipzig. It does not contain a list of submissions – the Ethnographic Museum should create an “inventory”. But it is clear that Struck could not implement his considerations to give part of the collection, to which he had made a significant contribution from his private holdings, to the Völkerkundemuseum in Dresden. The entire ethnographic collection of the University of Jena moved to Leipzig.

*Research on the origin of the skulls from the osteological collection after the skulls were handed over to Jena*

After taking over the skulls from the osteological collection, they could be edited anthropologically. In the course of the processing, it was found that there are inscriptions on the skulls that go beyond the information in the inventory list and enable further provenance research. Inventory numbers and references were found on all skulls, each written in ink on the skull. Attached notes with further information were only found on one skull.

Four of the skulls at hand are labeled with an inventory number that begins with the letters “SA”. This is an abbreviation for “social anthropology”, which clearly identifies the pieces as part of the osteological collection. The later Institute for Anthropology was founded in 1930 as “Seminar for Social Anthropology” under the professorship of Hans F. K. Günther and kept this name until Bernhard Struck took over the chair in 1936. It is therefore certainly understandable that the four skulls came into the holdings of the university under Günther between 1930 and 1935. It has not yet been possible to determine how this actually took place, as the existing files do not provide any information and the inventory from Günther has not been preserved, only the number of bones handed over to Struck, which have the highest number with “SA” labeling covers very well.

One of the skulls mentioned from the collection of social anthropology is a skull from Papua, about which no further information is available via the inscriptions. The other three skulls are marked as Maasai and also have other references to their previous owners. The inscription “ex occid. Ms Kiliama Njaro/W. Kuhnert IGT”

(skull SA 6 and SA 7). This can be associated with the well-known animal painter Wilhelm Kuhnert. By referring to Mount Kilimanjaro, it is also possible to localize the origin of both skulls more closely. The third skull can also be identified because of the inscription "IGT. v. Goetzen" assign the governor of German East Africa Gustav Adolf von Goetzen as the likely previous owner. However, there is no reference to a specific region, as in the case of Kuhnert's two skulls. Due to the probable allocation of the three Maasai skulls to the previous owners Wilhelm Kuhnert and Gustav Adolf Graf von Goetzen, a connection between the acquisition and the Maji-Maji uprising must be assumed. This took place between 1905 and 1907 in German East Africa and in a short period of time covered almost all the peoples of the colony who resisted colonial rule (Herzog 1986, pp. 53–58; Msuya 2016, pp. 71–72). The uprisings were brutally suppressed by the protection forces, and according to current estimates, between 250,000 and 300,000 local people were killed (Herzog 1986, pp. 57–58). A connection between the three skulls and the Maji Maji uprising seems plausible, since von Goetzen was governor of German East Africa during the uprising and Kuhnert also stayed in German East Africa in 1905/06 for animal studies and both were in direct contact with the Uprising. In addition, several incision marks on the occipital condyle of the SA 183 skull indicate that the skull was forcibly severed from the rest of the body while the tendon bandage was still intact. This, too, would fit well with a connection with the Maji Maji uprising. How the three skulls came into the possession of Günther and social anthropology from their previous owners cannot currently be clarified.

The provenance of the other two skulls from the osteological collection, which came from Papua, can also be clarified using the inscription.

The first skull with the inventory number "A6" has no other inscriptions apart from this inventory number. With the help of the first inventory book of the Osteological Collection, which was created from December 1936 by Bernhard Struck, the origin can be determined more precisely. Accordingly, in July 1932, the skull, along with nine other skulls, was donated to Günther in social anthropology from the Kaiser Wilhelm Institute for Anthropology, Human Heredity and Eugenics. As a further remark, Struck noted that among these ten skulls there is no European one. He puts this out as a quote from a letter from Günther to him on November 26, 1936. This letter has not yet been found in the files of the Institute for Anthropology, which means that it remains unknown whether it contained further details on the origin of the skulls. The context in which the skulls were sent to the Kaiser Wilhelm Institute cannot be traced either.

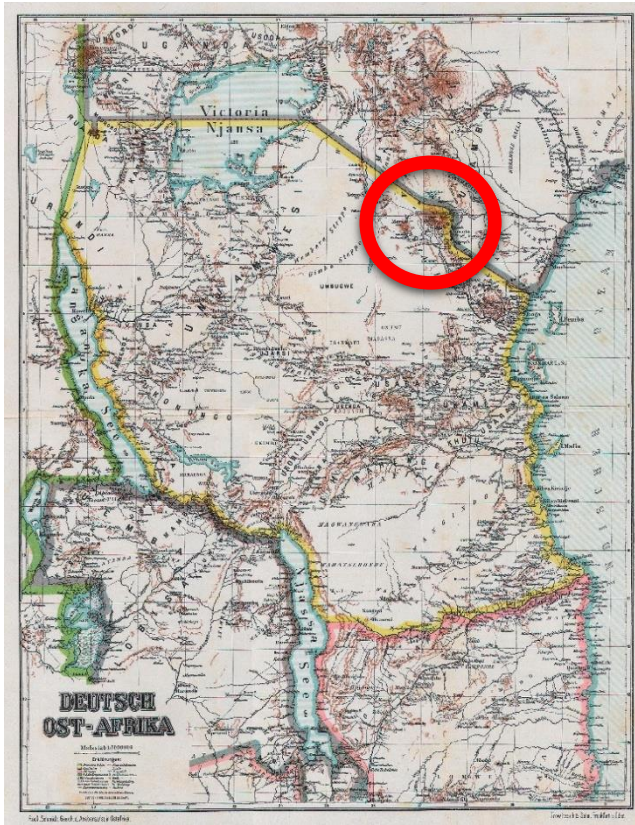


Fig. 11: Map of German East Africa, Kilimanjaro circled in red area

2				3		
Inv. Nr.	Datum	Beschreibung	Art	Wiss. Nr.	Event	Bemerkungen
A 1	22.11.36	Schädel ohne Unterkiefer	unbekannt	W 257	•	Bekannt E-W-Tier f. Indien, Kongo, Arabien, Indien, ...
2	•	Schädel ohne Unterkiefer	unbekannt	W 258	•	•
3	•	Schädel ohne Unterkiefer	unbekannt	W 259	•	•
4	•	Schädel ohne Unterkiefer	unbekannt	W 260	•	•
5	•	Schädel ohne Unterkiefer	unbekannt	W 261	•	•
6	•	Schädel ohne Unterkiefer	unbekannt	W 262	•	•

Fig. 12: Extract from the first inventory book of the Osteological Collection from 1936 with skull A6

The last skull with the inventory number SS 2587 provides further information about its origin on the basis of an enclosed slip of paper. So he presents the skull as a purchase from the company “Curiositäten Umlauff”. Since this company only existed between 1928 and 1942 under the management of Gustav Umlauff, the

acquisition can be limited to this period and thus back to the time of Günther or the first years of Struck. Apart from the information about the seller, the note also contains the information “Ramu/Sepik Delta N.G.”. Similar to the two skulls of Kuhnert, this information enables a closer localization of the region of origin, namely the area between Sepik and Ramu, which often forms a common delta during the rainy seasons and the associated flooding. The way in which the skull came to Umlauff cannot be clarified, since no files from Gustav Umlauff's rival company have been preserved in the Umlauff company's business documents in the MARKK.



Fig. 13: Map of the Kaiser Wilhelm Land, the Ramu Sepik area is circled in red

### 3.2 Research on the skulls from the Phyletic Museum

#### *Starting point for the archive research on the two skulls from the Phyletic Museum*

The aim of the investigation was to determine the provenance of two by Ernst Haeckel<sup>29</sup> 1908 at the natural produce company J. F. G. Umlauff<sup>30</sup> to clarify the skulls acquired in Hamburg and their whereabouts. The Umlauff company, which emerged from the curiosity trade of J. F. G. Umlauff and was expanded to include an ethnographic museum in 1884, was one of the leading ethnographic dealers. Head of the company Heinrich Umlauff<sup>31</sup> exercised great influence on the design of their collections through close personal contacts with the heads of the German ethnographic museums, although he did not have a scientific education (Glenn Penny 2002, pp. 105–106).

He had Haeckel on January 14, 1908 – apparently in a letter of January 4, 1908<sup>32</sup> expressed – wish “22 human skulls of various races and skulls of anthropomorphic monkeys” (EHA 11907) sent to check a possible purchase with a “proforma invoice”. Two Papuan and one Maasai skulls were listed among the human skulls. From this shipment, Haeckel kept a Papuan and a Maasai skull for the Zoological Institute.

This purchase could be verified on October 24, 2020 in the Umlauff company books. Haeckel had these acquisitions on January 17, 1908, along with four other human skulls, in the propagation book of the Zoological Institute that he created in 1895<sup>33</sup> registered:

- “1. Staurocephalus (Frontal Sutura), Jena 1861”, a gift from Haeckel’s own collection. It will be a German skull.
- “2. Brachycephalus China”, as well as 1 a gift from Haeckel,
- “3. Dolichocephalus (New Guinea), New Guinea, ”1908 bought from Umlauff for 50 marks,
- “4. Dolichocephalus (Herrero) S. Africa”, bought from Umlauff in 1908 for 80 marks,

<sup>29</sup> For Ernst Haeckel (1834–1919) see Krauß 1984; Richards 2009; Hoßfeld 2010.

<sup>30</sup> For information on natural produce and museum Umlauff, see Lange 2006.

<sup>31</sup> Heinrich Umlauff (1869–1925), the eldest son of the company founder Johann Friedrich Gustav Umlauff (1883–1889), was “the real boss” of the company since the death of his father, Thode-Arora 1992, p. 147.

<sup>32</sup> Haeckel’s letter has not survived because most of the Umlauff company’s documents fell victim to the bombardment of Hamburg in July 1943. As a rule, Haeckel did not keep concepts. (Kindly provided by Dr. Claudia Tazsus, Ernst Haeckel Research Center, November 6, 2020.)

<sup>33</sup> Phyletisches Museum Jena, Katalog des Zoologischen Institutes 1895–1909, 1927–1935. 1895–1909, 1927–1935, pp. 201–202. This Foliokladde is in the Jena University Archives (UAJ). After Haeckel’s retirement, it was not continued. Numerous additions were registered in 1927, others followed sporadically from 1928 to 1935.



“5. Stenocephalus (Australia), Australia”, a gift from the Richard Semons collection. This collection was the result of Semon's research trip to Australia and the Malay Archipelago in 1891–1893.

“6. Paedocephalus, Würzburg 1856”, as well as 1 and 2 a gift from Haeckel. The location and year allow the conclusion that it was the skull of a German child, sent to Haeckel in connection with his studies in Würzburg pathology<sup>34</sup> at Rudolf Virchow. As an anthropologist and pathologist, Virchow demonstrated “an enormous collector's activity” (Prüll 2001, p. 211).

1908.			
Nr.	Datum	Name des Thieres	Fundort und Jahr
	Januar 17.	<u>Crania hominis</u> (6)	
		1. Stenocephalus (Frontal. Tutur)	Fama 1861
		2. Brachycephalus	China
		3. Dolichocephalus (New-Guinea)	New-Guinea
		4. Dolichocephalus (Hemero)	S. Africa
		5. Stenocephalus (Australia)	Australia
		6. Paedocephalus	Würzburg 1856
		<u>Crania primatum</u> (12)	
		1. Gorilla	Konaron

1908.		
Herkunft	Bemerkungen	Nr.
1. Coll. E. Haeckel	50 Stk.	
2. — Ho.	50 Stk.	
3. Coll. Ueberhoff	50 Stk } Gek. (Haeckel) 80 Stk } 1908.	
4. — Ho.		
5. Coll. Semon	50 Stk.	
6. Coll. E. Haeckel	50 Stk.	
Obent Müller (Schutztruppe)	50 Stk.	

Fig. 14: Vermehrungsbuch Zoological Collection, 1895–1909, 1927–1935, pp. 201f.

<sup>34</sup> For Haeckel's studies as a student and assistant to Virchow (1821–1902) see Göbel/Müller/Taszus 2019, pp. XXXII–XXXVI.

The classification of the skulls bought at Umlauff was carried out by Haeckel.<sup>35</sup> It corresponded to the cephalic index developed in the early 1840s by the Stockholm anthropologist and anatomist Anders Adolf Retzius (1796–1890) with the division of people into “dolichocephale” (long-headed) and “brachycephale” (short-headed) races (Weiler 2006, p. 131–132). Retzius considered the dolichocephalus skulls to be of higher value (Gondermann 2007, p. 41).

The skull shape as an essential distinguishing feature of the “varietates” of the human species was introduced by the Göttingen anthropologist Johann Friedrich Blumenbach (1752–1840) in his work “De Generis Humani Varietate Nativa” in 1795. His distinction from five varieties was in the epistemological tradition of the early modern ladder model (Frigo 2001, pp. 28–30). However, Blumenbach rejected a hierarchy of races.<sup>36</sup> On the basis of very extensive skull measurements, Virchow had falsified the racial classifications of skull features associated with the cephalic index as early as 1877 and rejected the classification of dolichocephalic skulls as unscientific (Schönholz 2013, p. 199; Hoßfeld 2016).

Haeckel used craniometric observations to classify people into species:

*The long heads (Dolichocephali), the most one-sided formation of which is the skull of the negroes, are elongated, compressed from right to left. The short heads (Brachycephali), which are most strongly developed in the Mongols, appear short, almost cube-shaped, compressed from front to back. In the middle between long heads and short heads are the middle heads (mesocephali), which were developed by the Native Americans* (Haeckel 1868, p. 67).

Haeckel saw the types of people he thought he had identified at different stages of development. He saw the “Papuan Negroes” in this hierarchy as “closest” to the “ape man”.<sup>37</sup>

How far with Haeckel’s classification in the entry for January 17, 1908, these racist assessments (for this see Fischer et al. 2020, pp. 8–11) played a role is not apparent. But it is noticeable that Haeckel had entered the Maasai skull, contrary to Heinrich Umlauff’s clear information, as “Dolichocephalus (Herrero) [sic CM.RB] S. Africa” in the Vermehrungsbuch. A mistake by Haeckel cannot have been the cause of this incorrect entry: Haeckel’s son-in-law Hans Meyer<sup>38</sup> was “one of the most popular German Africa explorers”, (Brogiato 2007, p. 114) since he climbed the top of the Kibo on October 6, 1889 and incorporated it into the German Empire as “Kaiser-Wilhelm-Spitze”. Accordingly, Haeckel did not include him in his list of the most important sponsors of the Phyletic Museum with his job title like other donors, but only with the addition: “Kilimanjaro” (UAJ, Best. C, No. 640).

<sup>35</sup> The names of the skulls in the documents from Umlauff s. u. Fig. 15, 16, u. 17.

<sup>36</sup> “He argued against the prevailing opinion of European superiority and their divine selection, instead insisting that all races, especially African, were fully equal to Europeans”, Barber 2000, p. 152; see also Junker 2019, pp. 125–142.

<sup>37</sup> Ibid 68; see also Levit/Hoßfeld 2020, p. 9; Hoßfeld 2016.

<sup>38</sup> The Leipzig publisher and geographer Hans Meyer (1858–1929) and Elisabeth Haeckel married on December 21, 1891. On him see Brogiato 2020.



An avid collector himself, Meyer was a “well-known patron of German ethnology” (Glenn Penny 2002, p. 75) with the Museum of Ethnology in Leipzig (Göbel 2002, p. 46) such as the Royal Museum of Ethnology Berlin in close connection.

Haeckel had given his assistant Leonhard Schultze-Jena a “generous leave” for a research trip to German Southwest Africa from 1903 to 1905<sup>39</sup> and because of Schultze-Jena's report on the expedition, he approved his appointment as associate professor.<sup>40</sup> Haeckel was thus fully informed about the differences between Maasai and Herero.

His knowingly false statement<sup>41</sup> in the Vermehrungsbuch, which was only continued in 1927 after his resignation from the teaching post in 1909, and the missing cataloging<sup>42</sup> will be the reason why the whereabouts of the Maasai skull cannot yet be found in either the catalogs or the scrap lists of the Phyletic Museum.<sup>43</sup>

The Papua skull decorated with stone carving, registered by Haeckel as “Dolichocephalus (New Guinea)”, was identified by Bernhard Leopold Bock, Phyletic Museum Jena, on December 3, 2020 as PMJ Mam 1384 in the Phyletic Museum.

Haeckel had acquired both skulls for the Zoological Institute in order to equip the Phyletic Museum he founded with them. As early as March 12, 1907, he had designated the anthropological collection as the most important part of the Phyletic Museum (UAJ, Best. C, No. 640, 45). However, when it was inaugurated on July 30, 1908, the building was “largely empty inside.” (Fischer/Brehm/Hoßfeld 2008, p. 30) The skulls acquired at Umlauff were not among the few exhibits and initially remained in the zoological institute.

Haeckel's pupil and successor Ludwig Plate opposed the compilation of an inventory catalog for the Zoological Institute,<sup>44</sup> who had been in office since April 1, 1909, decided (UAJ, Best. C, No. 635, 25–27) despite a formal request from the Grand Ducal Ministry of State, Department of Culture in 1912. Even in Haeckel's time, the overview of the objects in the Zoological Museum – according to his information in 1905, was 130,000 (v. Knorre 1983, p. 16) – left to be desired in terms of precision. Because when he took office in 1862 he had continued the practice of his predecessors of summarizing the holdings according to cupboards. The Vermehrungsbuch of the Grand Ducal Zoological Museum in Jena, created in 1851 by

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<sup>39</sup> Förster/Stoecker 2016, p. 85, or the biography of Leonhard Schultze-Jenas (1872–1955) see Wartenberg 2019, pp. 10–12. In 1912, Grand Duke Ernst Wilhelm von Saxonie-Weimar-Eisenach honored Leonard Schultze's father Bernhard Schultze, gynecologist at the University of Jena, with the permission to use the name Schultze-Jena for himself and his family.

<sup>40</sup> Report by Otto Liebmann, the Dean of the Philosophical Faculty, to the Vice Rector Friedrich Maurer, January 25, 1907, UAJ, Best. BA, No. 923, 159r–150v.

<sup>41</sup> The reason for Haeckel's approach cannot be clarified with the current status of the archival description of the EHA.

<sup>42</sup> Until the 1950s, the State Ministry and the University of Jena used the terms inventory exclusively for furniture, while collections were “cataloged”.

<sup>43</sup> Kind information from B. L. Bocks, February 4th 2021.

<sup>44</sup> Ludwig Plate (1862–1937) was professor of zoology at the University of Jena and director of the Phyletic Museum from 1909 to 1935, see Hoßfeld/Levit 2011, pp. 412–413.

Oscar Schmidt (1823–1886)<sup>45</sup> does not contain a single entry in the “Catalog number” column. A precise inventory of the individual preparations did not exist. Accordingly, a “Catalogus Museii Zoologici Jenensis” is preserved from Haeckel’s term of office (EHA, Best. G, Amtsschriftgut) from 1885, an overview of the holdings of the eighteen cabinets in the Grand Ducal Museum.

On November 6, 1889, Haeckel University Curator Heinrich von Eggeling (1838–1911) responded to a request for inventories of the Zoological Institute and the Zoological Museum: “There is no complete catalog of the Zoological Museum’s collections; it is neither feasible nor of value; but want a general list of cabinets and their contents.”<sup>46</sup> His draft of a “service regulation for the assistant at the zoological institute and custodian at the zoological museum in Jena” of October 18, 1896 provided:

*3. Working at the Zoological Museum. As custodian of the museum, the assistant has to supervise its order and conservation, direct and supervise the relevant work of the famulus, register the new purchases and gifts intended for the museum, keep the catalog, and the zootomic and microscopic preparations according to the instructions of the zootomics projector (EHA, A 47570).*

But this concept was only partially implemented. Except for the 1895 Vermehrungsbuch.<sup>47</sup> So far, no total inventory or systematic inventory catalog has been determined.

### *Results of the archive research*

The starting point for the research was the “proforma invoice” from the natural produce store J. F. G. Umlauff for the Jena Zoological Institute of January 14, 1908.

The fonds “Nachlass Umlauff” in the MARKK’s archive

It was necessary to investigate any invoice documents of the Umlauff company in the Hamburg archives and in the relevant archive portals and – in view of the war-related gaps in the records – for dealers and collectors in secondary literature who worked with Umlauff. The research into business documents of the Umlauff company showed that since 2005, the year Lange’s dissertation on the Umlauff company was published, an improvement in the tradition situation has occurred: In the archive of the Museum am Rothenbaum, Cultures and Arts of the World (MARKK)

<sup>45</sup> Zoological Museum zu Jena, Vermehrungsbuch of the Grand Ducal Zoological Museum in Jena, May 1851–1868, EHA B 391 F, not foiled. The entries break off in 1868 for no apparent reason. (A digitized version was kindly provided by C. Taszus on March 1, 2021.) Haeckel also added chronological entries about his term of office. He noted that he was taking over the directorate on June 5, 1862, and at “Easter 1865 the direction of the Grand Ducal Zoological Museum was merged with the newly established full professorship of zoology in the philosophical faculty, transferred to Dr. Haeckel.”

<sup>46</sup> Sketch of a Haeckel letter, EHA A 49767.

<sup>47</sup> Phyletic Museum Jena, catalog of the Zoological Institute 1895–1909, 1927–1935. 1895–1909, 1927–1935, pp. 201f.

in Hamburg, an archival fonds “Nachlass Umlauff” (NL UML) formed. The files from this fonds, which were rescued from the fire in the office building in 1943, were kindly viewed by the head of the archive, Dr. Heidelies Wittig, herself on references to Ernst Haeckel. However, there was no mention of Haeckel.<sup>48</sup>

From October 22 to 25, 2020, Ms. Dr. Raddatz-Breidbach was able to inspect the following business books in the archive of the MARKK:

- Engl. Neu-Guinea I, 1903–1943 (MARKK – Nachlass UML 32)
- Engl. Neu-Guinea II, 1904–1943 (MARKK – Nachlass UML 33)
- Deutsch Neu-Guinea, 1912–1943 (MARKK – Nachlass UML 34)
- Massai; Schilluk, 1914–1943 (MARKK – Nachlass UML 7)
- Afrika II, 1900–1908 (MARKK – Nachlass UML 3)
- Afrika IV, 1904/1914 (MARKK – Nachlass UML 4)<sup>49</sup>

Gisela Bührmann, the daughter of Heinrich and Berta Umlauff's daughter Erna, had these documents, which were also saved from the burning office building after the bombing (Lott-Reschke 2012, pp. 51–53), handed over to the Hamburg Museum of Ethnology.<sup>50</sup> They bear the company stamp “J.F.G. Umlauff/Völkerkunde/Hamburg-Stellingen” and all have the same structure. These are not copies of the company's business books, i.e. not duplicates of general ledgers, journals or cash books.<sup>51</sup>

The were drawn up in 1932/33 on the basis of the inventories and the accounting records. On the end pages of the completely preserved volumes (NL UML 7, 33,34) there is the following note: “Assigned by contract d. May 18, 1933 Altona-Stellingen d. May 18, 1933, signed by J. F. G. Umlauuffs and Käthe Umlauuffs.” The company stamp “J.F.G. Umlauff/Völkerkunde/Hamburg-Stellingen.” It is not clear who kept these books, a signature or countersignature and a formal conclusion are missing. The books were handwritten. In Raddatz-Breidbach's opinion, these are appendices to the specified contract on a sales transaction between the siblings Johann Friedrich Gustav Umlauff junior and Käthe Umlauff, which is not mentioned in the works by Thode-Aroras and Lange. However, the background to this transaction is irrelevant in our context.

Johann Friedrich Gustav Umlauff junior, the eldest son of Heinrich and Berta Umlauff, actually managed the company after the death of his father, although his mother was the owner. He used the first name Gustav to distinguish it from his

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<sup>48</sup> Information from September 23 and October 22, 2020.

<sup>49</sup> Since December 2020, digital copies of this and other Umlauff company books have been available at the following link: <https://katalogplus.sub.uni-hamburg.de/vufind/Search/Results?lookfor=%22Museum+Umlauff%22&type=Person> (05.05.2021). The archive trip also served to carry out extensive literature research in the MARKK library.

<sup>50</sup> Thode-Arora 1992, p. 150. Lange 2004, p. 162 mentions “personal papers of Gisela Bührmann in the Museum für Völkerkunde Hamburg.”

<sup>51</sup> The description Lange 2006, p. 277 Anm. 29 does not apply to them.

grandfather. In 1928 he received the power of attorney (Lange 2006, p. 24). “Sometime between 1928 and 1930” (Thode-Arora 1992, p. 154) he left the company and started his own ethnographic business. His trading company Gustav Umlauff made competition with the parent company: in 1937 Schultze-Jena sold some of the objects that he had collected on his research trips to the Göttingen Ethnological Collection through the Gustav Umlauff company (Wartenberg 2019, pp. 17–18). Käthe Umlauff took over the management of the parent company in 1932 after an interim in which her brother Hans Umlauff had been managing director (Eifert 2011, p. 56) and moved it “to the Gazellenkamp, to the side entrance of Hagenbeck’s zoo.” (Thode-Arora 1992, pp. 155).

The development context of a sale of company property corresponds to the fact that these business books document company inventories for key data. The objects are listed with their inventory numbers, occasionally in the context of a dated collection. They do not contain more detailed information about their acquisition by Umlauff. References to sheets of other books of account may refer to the original journals.

As the volumes NL UML 7, 33, 34 show, perforated folio sheets had been stapled together in office books. The other business books that were viewed have been preserved in fragments as loose folio sheets, without covers and endpapers (NL UML 3, 4, 32).

#### Evidence of the skulls acquired by Ernst Haeckel

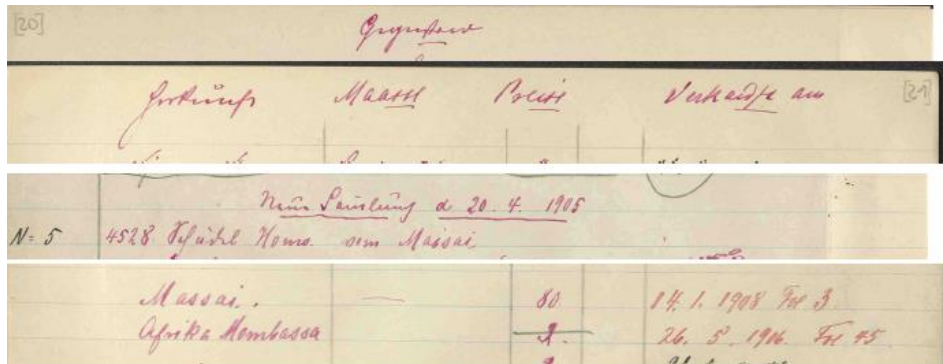
The skulls offered by Heinrich Umlauff Haeckel were listed in the proforma invoice with the inventory number of the Umlauff company and the respective price. The two skulls that Haeckel kept for the zoological collection can be identified in the company’s books. Heinrich Umlauff confirmed to him on February 17, 1908, “the correct receipt of the human and monkey skulls returned to me.” Unfortunately, the invoice “About the two skulls retained” has not been received in either the EHA or the UAJ.<sup>52</sup> Haeckel’s selection can, however, be traced back to the two blue lines on the right edge of the proforma invoice.<sup>53</sup>

#### Maasai-Skull

The Maasai skull, inventory number 4528, appears in the business book Africa IV, 1904–1914 (NL UML 4), pp. 20–21. The ledger is subdivided into the headings “Subject, origin, dimensions, prices, sold on”. The first column, without a heading, occasionally contains references. The Maasai skull appears as the first object in the list “New Sam [m] lung a 20.4.1905.” In the reference column, reference is made to “No 5”. Subject: 4528 “Skull Homo. vom Maasai”, Origin: “Maasai”, dimensions are missing, price: “80”, sold on: “14.1.1908 Fol 3.”

<sup>52</sup> For the delivery of invoices and access directories in the EHA and UAJ see II.2.2 below.

<sup>53</sup> Note by C. Tazsus November 5, 2020.



**Fig. 15: Museum am Rothenbaum, Cultures and Arts of the World, - UML 4: Museum Umlauff; Hamburg 1904–1914; Africa 4, pp. 20–21**

The origin of the other items in this collection from April 20, 1905 is given as “Africa Mombassa”. The seller, who is not named, may have brought this collection from Mombasa and sold it to Umlauff. It is not clear how the Masai skull came into his possession.

Here we have to guess. The voluntary sale of human parts in a business transaction among equals appears unlikely in East Africa. For the procurement of artefacts it was already true that their “procurement was not always friendly, but outside of wartime it was mostly peaceful and occasionally even represented an appropriation through purchase” (Nagel 2013, p. 145). The sale of wooden masks – possibly made for this purpose – has been documented for Nigeria since the second half of the 1880s (Malefakis 2009, p. 121). For the procurement of body parts, even the German scientific institutions had to use the colonial ruling apparatus, which was reluctant to meet these wishes.<sup>54</sup>

The Umlauff company checked the legitimacy of the acquisition of the objects offered to it as little as its competitors. “As a provider, Heinrich Umlauff wisely rarely gave information about the collection methods” (Lange 2006, p. 38). Johan Adrian Jacobsen (König 2002, pp. 31–35) e.g., who i.a. procured Ethnographica for Umlauff, Hagenbeck and the Königliches Museum für Völkerkunde Berlin, did not shy away from grave robbery.<sup>55</sup> Haeckel himself – like most of the anthropologists and ethnologists of his time (Schönholz 2013, p. 157) – did not concern himself with ethical aspects of his acquisitions. Research travelers often considered attacks to be scientifically legitimized: “But in general there appears to have been an unwritten policy that when locals were unwilling to cooperate with collectors,

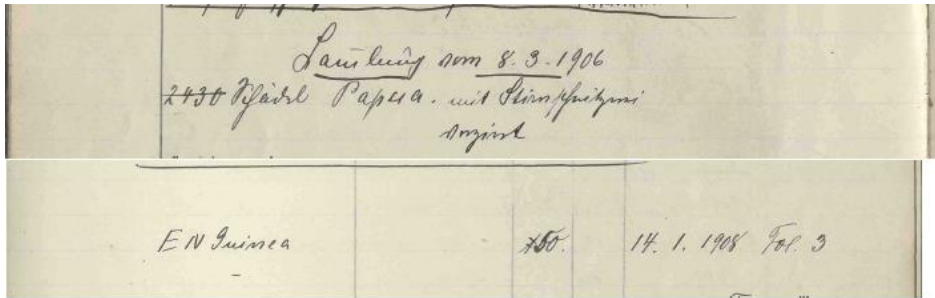
<sup>54</sup> Nagel 2013, 167f. For information on how the expeditions and the governor Gustav Adolf Graf von Goetzen dealt with Africans, see Pesek 2005, pp. 122–145, pp. 200–227, pp. 256–317.

<sup>55</sup> <https://www.smb.museum/nachrichten/detail/rueckgabe-von-grabbeigaben-an-die-chugach-alaska-corporation> (31.10.2020). His personal papers are in the MARKK archive. According to H. Wittig on October 22, 2020, he worked not in the areas relevant to our question.

subterfuge and theft – legitimated by the needs of science – were acceptable means of acquisition.” (Glenn Penny 2002, p. 100).

### Papua-Skull

The Papuan skull from British New Guinea, inventory number 2430, is listed in the Engl. New Guinea II business book, 1904-1943 (NL UML 33). This fully preserved Kontorkladde is not paginated. On the flyleaf it contains the above-mentioned note on the sales contract dated May 18, 1933. Its structure corresponds to that of NL UML 4, but the headings are missing. 2430 is listed as the first object in a “collection of March 8, 1906”: “Papuan skull decorated with stone carving”, origin: “EN Guinea”, dimensions are not given, price: “50” “Sold on January 14, 1908 fol. 3.”



**Fig. 16: Museum am Rothenbaum, Cultures and Arts of the World, – UML 33, Museum Umlauff; Hamburg, 1904-1943; Engl. New Guinea 2**

Nine other skulls follow with the same description. The decorations indicate that these skulls were used for ritual purposes. Again it is not clear from whom Umlauff acquired these skulls and how the seller got their possession. As with the Maasai skull, the date of the offer by Umlauff on January 14, 1908 has been retained as the date of purchase.

Information on the other Papuan skull that Umlauff Haeckel sent has not been received. Because the business book German New Guinea, 1912-1943 (NL UML 34), the structure of which corresponds to NL UML 33, only lists a few objects in the column 9a: “Transferring a/d old German New Guinea book”. The skull No. 742 offered to Haeckel does not appear among them.

With regard to the further handling of the skull, which is now kept in the Phyletic Museum as PMJ Mam 1384, the question of the legitimacy of its acquisition by the Umlauff company arises with particular urgency. Despite the fact that its origin is limited to British New Guinea, the blanket term “Papuan skull” does not allow any conclusions to be drawn about its specific cultural background. Because the number of Papuan societies in this area was large. To date there has been no scientifically unambiguous use of the term “Papua.” (Ballard 2008, pp. 57–201). The following applies to descriptions of Papuans in the 19th century: “the definition of

Papuan-ness for Europeans rested as much upon a host of largely negative attributions, including cannibalism, savagery, treachery, polygamy, and the poor 'usage' of women, as it did upon purely bodily characteristics" (Ballard 2008, p. 165).

Unlawful appropriations of later museum objects by European scientists are variously documented for New Guinea. Murray sharply criticized how Luigi d'Alberty had appropriated all twelve existing skulls instead of the traded three human skulls on his first research trip along the Fly in 1875.<sup>56</sup> William MacGregor, administrator or governor of British New Guinea 1887–1898, opposed predatory acquisitions of scientific expeditions and in 1890 confiscated "a collection acquired under unethical circumstances by Dr. Lamberti Loria at Oro Bay" (Quinnell 2000, pp. 81–102).

Participants at the Hamburg South Sea Expedition in 1909 took objects out of their huts in the absence of the villagers and left behind glass beads and the like as "counter gifts" (Lange 2006, p. 38).

In New Guinea, the clan and settlement were "a community of the living and the dead" (Hauser-Schäublin 2009, p. 8). One expected protection from the ancestors, one owed them "one's existence, all knowledge and all material cultural assets" (Olig 2006, p. 221). Thus it is not said that the purchase of the skull, which was later sold to the Zoological Institute, was preceded by negotiations among equals, even if it was the captured skull of an enemy.

#### *Haeckel's information on skull accessions*

##### Correspondence with Hans Meyer

By 1908, Hans Meyer had already scientifically documented four expeditions to East Africa and evaluated them in popular presentations (see Hamann 2008, pp. 39–59). The first volume of the work he edited "Das Deutsche Kolonialreich" (Meyer 1909) with its portrayal of East Africa and Cameroon was nascent. He had been a member of the Colonial Council since 1901 and chaired its "Commission for regional studies of the protected areas", founded in 1905 at his request, until his death (Hamann 2008, p. 40). Meyer laid the foundations for a comparative colonial geography in Germany.<sup>57</sup> In view of Meyer's experience, knowledge and extensive contacts, it seemed conceivable that Haeckel would have used his expertise to buy the Maasai skull or would have exchanged his findings with him after the purchase.

Raddatz-Breidbach therefore viewed Meyer's letters to Haeckel up to July 1914 at the Ernst Haeckel research center on November 6, 2020, which are part of the EHA's fonds.<sup>58</sup> In addition, the Ernst Haeckel Online Letter Edition was used, which also records letters outside of the EHA's holdings. It identifies 213 letters

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<sup>56</sup> Murray 1912. Murray (1861–1940) was Governor of Papua from 1908 to 1940, see also Nelson 1986.

<sup>57</sup> Please refer Débarre/Ginsburger 2014, pp. 167–186.

<sup>58</sup> EHA, Box: 1890 VEH / 1900 Meyer, Hans and Box: 1901 VEH / 1919 Meyer, Hans.

from Meyer to Haeckel, eight of which can be accessed online. Six of Haeckel's 43 letters to Meyer are available online.<sup>59</sup>

As from Haeckel's letter to Meyer of January 9, 1906<sup>60</sup> emerges, he had discussed the establishment of the Phyletic Museum, initially planned as the Ernst Haeckel Museum, in detail with him before he presented his plans to the university curator Heinrich von Eggeling. On February 2, 1908, Meyer tried to show his father-in-law a possibility of purchasing iron cabinets for the Phyletic Museum with the help of a cabinet supplier from the Grassi Museum Leipzig, instead of the wooden ones Haeckel had intended (EHA, A 46931). Hans and Elisabeth Meyer's donation of the "Gorilla gigas",<sup>61</sup> including the mirror panes of his showcase for the Phyletic Museum in January 1909, was the subject of the correspondence (EHA, A 45145; A 41394).

Meyer often mentioned his "colonial interests" and his lectures on his travels to Africa. However, there was no professional exchange about East Africa or Maasai with his father-in-law. There is only one postcard from Mombasa for his last trip to East Africa in 1911 (EHA, A 35716). Haeckel apparently did not communicate with him about his further skull examinations either. Meyer allowed himself cautious criticism from time to time. On January 16, 1907, he warned Haeckel that it would not make a good impression if he himself dealt with his "stormy temperament"<sup>62</sup> intensively in the planning of the Ernst Haeckel Museum. Perhaps that is why Haeckel did not consult with him about his skull acquisitions for the Phyletic Museum.

The finding aid for the Hans Meyer estate in the Geography Archive of the Leibniz Institute for Regional Geography<sup>63</sup> does not list any letters from or to Ernst Haeckel among the letters, envelopes and concepts.

### Official documents

Since taking up his post as director of the Grand Ducal Zoological Museum in Jena on June 5, 1862, Ernst Haeckel tried hard to continue the work of Carl Gegenbaur<sup>64</sup> started reorganization.<sup>65</sup> He brought in his own private collection for the urgently needed expansion of the collection.<sup>66</sup> Gegenbaur also supported the collection with donations. In the Vermehrungsbuch (EHA, B 391 F) For example, nine donations

<sup>59</sup> State 27. Februar 2021.

<sup>60</sup> ID 43290 Ernst Haeckel Online Letter Edition, writing in private ownership.

<sup>61</sup> For the special interest in gorillas see Lange 2005, pp. 183–210.

<sup>62</sup> EHA, A 45125, not part of the online letter edition. See also Uschmann 1959, p. 166.

<sup>63</sup> Archive for geography, Hans Meyer finding aid (1858–1929), Leipzig [nach 2004] Meyer\_Hans\_final.pdf (leibniz-ifl.de) (28.8.2020).

<sup>64</sup> For Gegenbaur see: Hoßfeld/Olsson/Breidbach 2003, pp. 105–108.

<sup>65</sup> For the history of the museum up to 1862 see v. Knorre 1983, pp. 10–15.

<sup>66</sup> Ernst Haeckel, To the Grand Ducal State Ministry of Weimar, Jena, [10. August 1865], EHA, A 50106.



by Haeckel and seven Gegenbaurs are noted for the period from June 6, 1862 to August 5, 1863.

In addition, Haeckel achieved that a zoological institute was established for the winter semester of 1865/66. About both facilities located in Jena Castle, for which he often had to apply for additional funds,<sup>67</sup> he had to submit annual reports to the Grand Ducal Ministry of State. With them and the invoices, the Vermehrungsbuch was to be submitted to the State Ministry for examination by the university's curator.<sup>68</sup> In this way, access to the Zoological Museum can be tracked. After the castle was demolished, it merged completely with the zoological institute (v. Knorre 1983, pp. 16–17). Haeckel's handwritten lists of collections acquired between 1867 and 1901 are preserved in the EHA,<sup>69</sup> also preparatory work for the annual reports 1886 to 1893 and detailed calculations. On this basis, Haeckel annually determined the value of the collection for which he had to give an account.<sup>70</sup> In the 1885 catalog (EHA, Best. G, Amtsschriftgut) were also mentioned under the contents of "Cabinet No. 1, Mammals": "Human skeleton 2 – skull 1." The origin of these human bones is not evident.

Haeckel did not list any human bones in his detailed accession registers, which probably replaced a complete inventory for him. The British colonial official and ethnologist Charles Hose appear frequently among the sellers and donors<sup>71</sup> and his students and colleagues Willy Kükenthal<sup>72</sup> and Richard Semon. However, it is not clear whether they were acquisitions or donations. Gustav Adolf Graf von Goetzen or Wilhelm Kuhnert are not mentioned. In 1893 the Africa researcher Emil Holub offered the University of Jena "Dr. Emil Holub's South African exhibition in Prague 1892. Presentation of the research results of his last trip to Africa (1883-1887)".

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<sup>67</sup> See e.g. Haeckel's application to the Grand Ducal Ministry of State "for an increase of the regular budget of the museum" of March 25th 1866, State Archives Thuringia - State Archives Gotha, (LATH-StA Gotha) ID 43326 Ernst Haeckel Online Letter Edition.

<sup>68</sup> See e.g. with the annual report on the Zoological Museum and the Zoological Institute for 1867, 31. März 1868, LATH -StA Gotha, ID 43327 Ernst Haeckel Online Briefedition.

<sup>69</sup> For example in the folder Zoological Institute Acta G 30 / Acquisition Lists / Directories o. D.: Zoological Museum Jena 1898, "Provisional directory of the Malay collection of Ernst Haeckel Haus September 1900 to February 1901." This folder was only recently formed, but not yet fully recorded. C. Taszus made it possible for C. M. Raddatz-Breidbach to use this and other folders in the Ernst Haeckel Research Center on November 6, 2021, although no archive signatures have yet been issued. The bundles viewed are listed under V.

<sup>70</sup> Kindly provided by C. Taszus March 9, 2021.

<sup>71</sup> Charles Hose (1863-1929) conducted research on Borneo from 1884-1907, see Haddon 1929, p. 845.

<sup>72</sup> On April 9, 1895, the State Ministry approved the Department of Culture "of the University Curatel" to accept Hose's donation of a "collection of vertebrate animals" for the Zoological Museum. Willy Kükenthal express the thanks of the state government for his donation to the Ethnographic Museum, UAJ, Best. C, No. 801, 173. Kükenthal (1861-1922) was Professor of Phylogeny in Jena from 1889 to 1898, see Hansjochem Autrum, "Kükenthal, Willy", in: NDB 13 (1982), p. 208-209. [Onlinefassung] and see also Bauer 2015 and 2018.

Parts of this exhibition are donated to.<sup>73</sup> The transport costs were to be borne by the university. The catalog that he attached to this offer is no longer in the file of the Curatel. Haeckel's list of June 15, 1893 for curator Heinrich v. Egging "Specification of natural produce from the South African [sic RB.] Of Dr. Emil Hollub [sic RB.], Whose donation possibly for the Grossh. Zoolog. Museum in Jena would be desirable" (UAJ, Best. C, No. 2005, 10) and in his confirmation of receipt of September 29, 1893, no human bones were found.

From the curatorial file, "Surrender of objects from German protected areas, 1889-1911" (UAJ, Best. C, No. 805) it can be seen that no institute of the University of Jena received access to human bones in the course of the central distribution of ethnographic "duplicates" by the Royal Museum of Ethnology in Berlin.<sup>74</sup>

In the group of files of the annual reports of the institutes and collections, which were circulated "the high Herzogl. Saxon. State Ministries" (UAJ, Best. C, No. 520, 25r) Haeckel's reports on the Zoological Institute for the years 1903/4 to 1908/9 are available. The Vermehrungsbuch no longer had to be attached to the reports. But the invoices still had to be submitted for annual revision.<sup>75</sup> Its information is less detailed here than in its registers and reports received from the EHA. But he emphasized gifts of particular importance, for example in the report of July 19, 1904, a collection of 3,000 microscopic specimens that Dr. Otto von Roth, Freiburg, had bequeathed the institute, and 30 mammals "from Mr. Consul Schild in Sumatra."<sup>76</sup> In 1905, the Bernburg quarry owner Otto Merkel donated "a collection of oligocene petrefacts" (UAJ, Best. C, No. 523, 21v). In addition, Haeckel acquired "the excellently beautiful and large skeleton [sic RB.] Of an adult male gorilla from Umlauff for 1,500 marks" (UAJ, Best. C, No. 523, 21v). In his report of June 6, 1907 for the year 1906/7, he mentioned "Gorilla statue by Dr. Hermer, elephant skull by S. Klg. Your Highness the Grand Duke" (UAJ, Best. C, No. 524, 19r). He did not list human bones anywhere. This also applies to his report of January 31, 1908, in which he stated: "In addition, the collection was given a large number of small gifts, about which the Vermehrungsbuch provides information. The numerous individual objects and anatomical specimens that were purchased from various actions are also listed there" (UAJ, Best. C, No. 525, 21r). For the exhibition of the specimens, he referred to the Phyletic Museum, which was already under construction.

<sup>73</sup> The university's internal considerations and the correspondence with Holub are contained in the UAJ file, Best. C, No. 2005, gift of the Africa researcher Dr. Emil Holub in Vienna, 1893–1897. For Holub (1847–1902) see Hamann 1972, pp. 563–564.

<sup>74</sup> For these regulations see Nagel 2013, pp. 181–182.

<sup>75</sup> Haeckel referred to this in view of the accusations made by Plate, UAJ, Best. C, Nr. 641a, 92r.

<sup>76</sup> UAJ, Best. C, Nr. 521, 21r. Johann Schild (1865–1932) senior employee of the Amsterdam company Gebroeders Veth in Padang, was German consul in Sumatra since 1897, [https://www.europeana.eu/de/item/15504/VF\\_72785](https://www.europeana.eu/de/item/15504/VF_72785) (3.3.2021). He had actively supported Haeckel during his stay in Sumatra in 1901, according to Ernst Haeckel, Aus Insulinde. Malay travel letters. Bonn 1901, pp. 185–186.

Haeckel's last annual report, dated March 31, 1909, did not reach the board of trustees until July 9, 1909, according to the entry note (UAJ, Best. C, No. 526, 23). Regarding the zoological collection, he stated:

*During 1908 the zoological collection was mainly enriched by a large number of valuable skulls (mostly mammals) – including 6 typical human skulls. The most valuable gift was a male giant gorilla, (*Gorilla gigas*) the largest known specimen of this great ape – from Privy Councilor Elisabeth Meyer, née Haeckel, in Leipzig (Haydnstrasse 20), her father Prof. Dr. Ernst Haeckel given for his 75th birthday. (The next largest copy was made by Rothschild (see Copper/Hull 2017, p. 367) bought in England for the Tring Museum for the price of 20,000 Mk.<sup>77</sup>*

Haeckel's statement about the donation of the gorilla is at least incomplete. Because he had written to Hans Meyer on January 25, 1909:

*I was very pleased that you were adding the mirror panes for both cupboards to your great gorilla present (600 marks); thank you very much for that! Given the poor state of the cash register for the Phyletical Museum, this foundation is extremely gratifying! (EHA, A 41394).*

In the Vermehrungsbuch follows the entry of the arrival of the six human skulls on January 17, 1908 (EHA, A 41394, Fig. 1) on February 16, 1909 – Haeckel's birthday – the entry of the “*Gorilla gigas*.”<sup>78</sup> As in his last annual report, he named only his daughter as the giver under “Origin” and added a reference to the resignation of his teaching on February 12, 1909 under “Comment.”<sup>79</sup> As here, Haeckel emphasized his 48-year term of office in the entry on March 31, 1909 about the end of his office as director of the Zoological Institute and Museum.<sup>80</sup> This redundancy indicates that Haeckel's need for self-presentation outweighed scientific accuracy.

Haeckel published “no scientific excursion reports” (Breidbach 2006, p. 29), but rather fictional travel reports in which he “first and foremost himself” (Breidbach 2006, p. 30) described. As a travel writer and monistic preacher of faith he reached a wide audience and developed into a “cult figure” at the turn of the century (Breidbach 2007, p. 433). In Jena, Ernst-Haeckel-Strasse and Ernst-Haeckel-Platz were named after him in 1894 and 1903 (refer Jache 2001, p. 68). In 1904 Haeckel was proclaimed as “antipope” at the first international freethinker congress in Rome (Breidbach 2001, p. 28).

Haeckel's self-image was due to the lack of the expected Nobel Prize (Fischer/Brehm/Hoßfeld 2008, p. 9) 1908 and the dispute with Plate about the Phyletic Museum and the Phyletic Archive<sup>81</sup> been very hurt. The Phyletic Archive

<sup>77</sup> UAJ, Best. C, Nr. 526, 224r. Underlines by Haeckel.

<sup>78</sup> Vermehrungsbuch 1895–1909, p. 201.

<sup>79</sup> Ibid 202.

<sup>80</sup> Ibid 203. A picture of his last entry in: Förster/Stoecker 2016, p. 39.

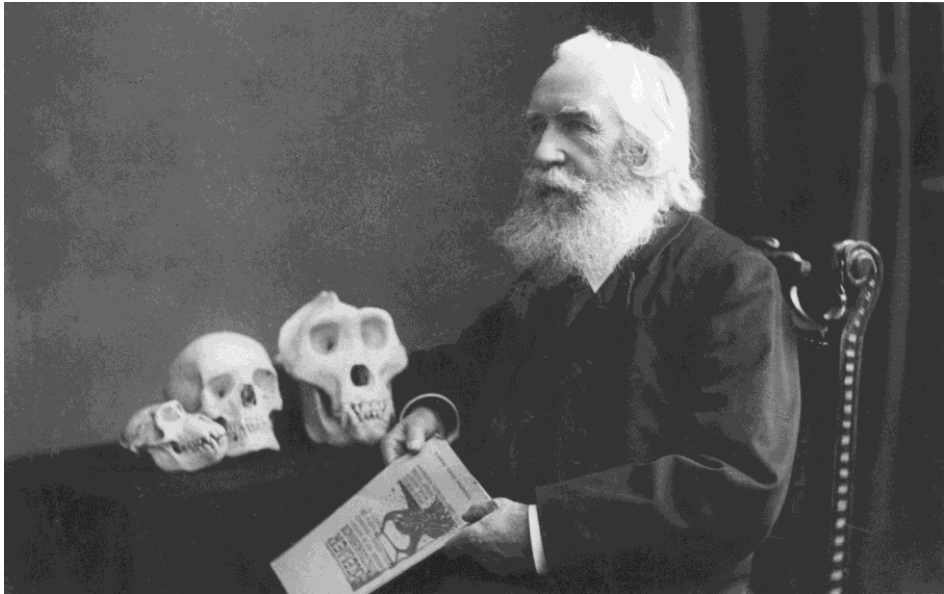
<sup>81</sup> For the so-called Haeckel-Plate dispute, see Müller 2019, pp. 92–95.

in the rooms of the Phyletic Museum was to look after his memory after his death, under the administration of his son Walter and Hans Meyer. In view of Plate's attacks on his indisputable contributions to Jena zoology, Haeckel feared that the mention of the popular Africa researcher Meyer as the donor of the gorilla gigas could tarnish the shine of name.

Haeckel had apparently transferred all human skulls from his private collection to the property of the university. Because there were no human skulls in his estate, as the "List of items for the purchase and donation contract of July 10, 1918" drawn up by Walter Haeckel and Heinrich Schmidt on October 8, 1919 (UAJ, Best. C, No. 808, 24–25).

#### **4 Ernst Haeckel as Anthropologist**

Haeckel's preoccupation with human phylogenetic and (paleo-) anthropological issues spanned a period of 45 years (Hoßfeld 2010, p. 2016). It started with the year 1863 (lecture in Stettin) and ends in the year 1908, when the text about our line of ancestors (*Progonotaxis Hominis*) appeared. Haeckel first pointed out the developing traditions of a biological anthropology in Stettin in 1863, when he noted that humans are neither "as an armed Minerva from the head of Jupiter" nor "as an adult, sin-free Adam from the hand of the Creator" (Haeckel 1864, p. 26) emerged. Rather, recent discoveries in the fields of geology, antiquity and comparative linguistic research suggest different conclusions about the origin. At that time, Haeckel could not rely on fossil finds. That is why he cited the "threefold parallel between the embryological, the systematic and the palaeontological development of organisms" as the strongest proof of "the truth of the theory of evolution" (*ibid.*). It should be emphasized here that Haeckel recognized the importance of paleontology for evolutionary biology at an early stage, but in return fails to draw the same conclusion for the importance of (paleo-) anthropology.



**Fig. 17: Ernst Haeckel with three skulls from his collection**

The first concrete statements by Haeckel on the subject of “human origins” can be founded in his two lectures on the origins and family tree of the human race from 1865 (printed in 1868). Especially in the second lecture (“About the family tree ...”) his statements became more precise, as he led directly over to the ancestral line of humans. He first divided the great apes (Anthropoides) into “Asian forest people (small orang, large orang)” and “African forest people (chimpanzee, gorilla)”. Haeckel understood the human races previously distinguished by Blumenbach (five) and Prichard (eight) as human species and expanded them to 10: 1. Ape-Man (*Homo primigenius*), 2. Papuan-Man (*Homo papua*), 3. South African man (*Homo hottentottus*), 4. Central African man (*Homo afer*), 5. New Dutch man (*Homo al-furus*), 6. Malay man (*Homo polynesius*), 7. Polar man (*Homo arcticus*), 8. Yellow man (*Homo mongolicus*), 9. Red person (*Homo americanus*), 10. White person (*Homo caucasicus*) (Haeckel 1868a, p. 77). Haeckel also postulated a monophyletic origin in humans. In his opinion, the original home of the various types of people indicated a sunken continent in the Indian Ocean (called Lemuria) (Wogawa 2015). His ancestral series of humans already comprised 12 levels: 1st level – tubular hearts and leptocardiers ... 12th level – ape people or primitive people (ibid., pp. 63–64).



**Fig. 18: Ernst Haeckel in expedition clothing**

One year after his two private lectures, *General Morphology of Organism* appeared in 1866. The second volume is dedicated to the “general history of the development of organisms” and can also be seen as the first attempt to establish an evolutionary morphology; Likewise, with the seventh book, “The History of the Development of Organisms in Their Significance for Anthropology”, he also includes Haeckel’s core theses with regard to a biological anthropology (Hoßfeld 2016, Levit/Hoßfeld 2019). For Haeckel, anthropology is nothing more than a special branch of

zoology which, as a general science of humans, can be divided into the main branches of human morphology and physiology. The morphology, in turn, is divided into the branches of human anatomy and human evolutionary history. In summary, he comes to the conclusion that “the differences between the highest and the lowest human beings are greater than those between the lowest human beings and the highest animals” (Haeckel 1866, p. 435). As a hypothetical missing link between the great apes (anthropoids) and the real (speaking) humans, he also established the genus *Pithecanthropus* in the second volume and introduced this form as the twenty-first level of the animal ancestry two years later in his natural history of creation.

His popular *Natural History of Creation* (1868b), which he wrote following *General Morphology*, did not produce anything new with regard to his earlier work, with the 19th lecture on “Origin and Family Tree of Man” being dedicated specifically to biological anthropology. Haeckel’s “ancestral line of people” already comprised 22 levels with “real people or speaking people (homines)” at the top. As in the lecture of 1865, he distinguished “ten different species of the genus *Homo*”, divided into the following sections: woolly-haired people (*Homines ulotriches*) and plain-haired people (*Homines lissotriches*). At the top of the scheme is: “X. Caucasian human, 20th Indo-European (northern) branch, 40th Germanic tribes and as the territory of Northwestern Europe”, at the lower end he placed the Papuans and the Hottentots (Levit/Hoßfeld 2020). A comparison of the skulls also shows a

predominance of medium-headedness. The main Caucasian branch must have split into two divergent side branches at an early stage: a Semitic branch towards the south and an Indo-European branch that spread to the north and west (Haeckel 1868a, pp. 519–520). The Indo-European branch then split again into the “Ario-Romanic” (Aryan and Romanic peoples) and the “Slavo-Germanic” (Slavic and Germanic peoples). As a partial résumé of the 19th lecture one reads:

*Through the incessant and enormous advances which culture made with this Caucasian human species far more than with all others, it has now surpassed the other human species in such a way that it has surpassed most of the other species. The struggle for existence will sooner or later defeat and repress. The Americans, Polynesians and Alfurus [...] are already moving rapidly towards their complete extinction (ibid., p. 520).*

He certified the other three still remaining human species (the real Negroes in Central Africa, Arctic people in the polar regions, Mongols in Central Asia) a happier existence in the struggle for existence (ibid., p. 520). From the second edition (1870) onwards, no longer 10, but 12 human species (with 36 races) are differentiated and discussed especially in the 23rd lecture “Migration and distribution of the human race, human species and human races”. A comparison of the “human ancestral lines” shows, for example, the following differences for the first and third edition (four years):

*I. Urmensch; II. Papua-Mensch; III. Hottentotten-Mensch; IV. Afroneger oder Mittelafrikanischer Mensch; V. Australneger; VI. Polynesischer oder Malayischer Mensch; VII. Polarmensch; VIII. Amerikanischer Mensch; IX. Mongolischer Mensch; X. Kaukasischer Mensch (Haeckel 1868a, p. 513).*

or

*1. Papua, 2. Hottentotte, 3. Kaffer, 4. Neger, 5. Australier, 6. Malaye, 7. Mongole, 8. Arktiker, 9. Amerikaner, 10. Dravidas, 11. Nubier, 12. Mittelländer (Haeckel 1872, p. 604).*

In contrast to the previous publications, you can now also find the first racial comments and images that reveal a rating as “lower” and “higher” human species. At this point the illustration “The family group of the catarrhins” on the inside cover page of the first edition (only here!) As well as the detailed statements in the XIXth century are representative. Lecture “Origin and family tree of humans” (Haeckel 1868a, pp. 486–520) or to be mentioned in the 23rd lecture etc. of the following editions: “The lowest people [Australnegians, Afronegers, Tasmanians] are evidently the highest apes [gorilla, chimpanzee, Orang] much closer than the highest human being” (ibid., p. 555).

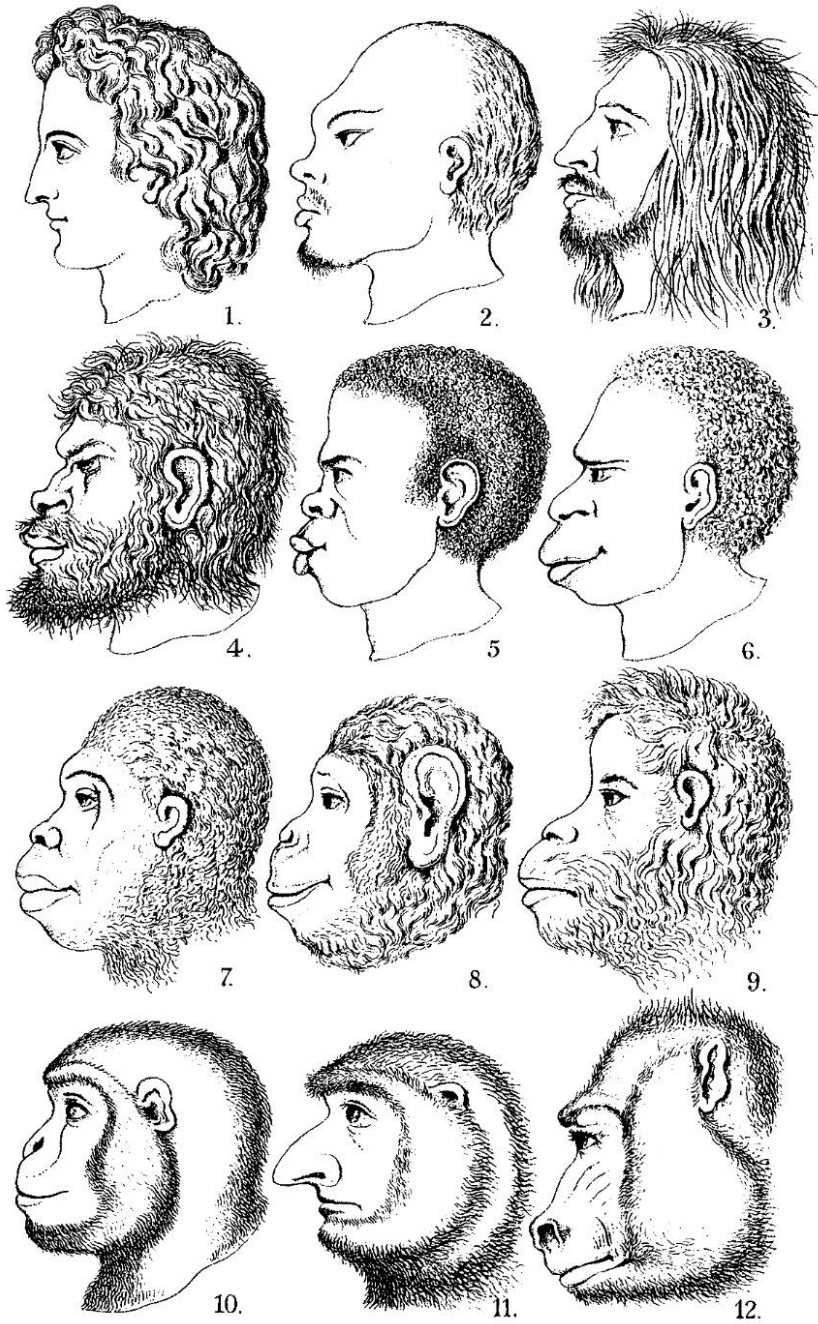


Fig. 19: Catarrhine family group



However, Haeckel's most important anthropological work is considered to be his anthropogeny *Evolution of Man* (1874). Here he went into great detail on questions of human descent, general zoology, taking into account ontogenesis and organogenesis, etc. Statements made in the 1860s did not represent any significantly new standpoints (Haeckel 1874, pp. 481–496).

Almost 20 years later, in the work *Systematic Phylogeny* (1895), Haeckel finally discussed again in detail the “*Systematic Phylogeny*” in the eighth chapter of the third part “Systematic Phylogeny of the Vertebrates”, sometimes with greater consideration of paleontology and morphology. Haeckel finally justified this reading on the basis of a detailed description of the most important characteristics of individual human races (hair formation, skin color, face formation, skull formation, brain formation, body proportions, language formation).

In later writings such as *Last Words on Evolution* (Berlin Lectures from 1905) or *The Human Problem and Linne's Primates* (1907) he immediately followed up on his remarks from the years 1866 to 1895; there are hardly any human phylogenetic specifications or additions.

In his time and with the help of the few fossil finds, Haeckel was able to defend the ideological interpretation of the “ape descent of man” better in the discussions than some of his predecessors. For him, the interpretation of the facts prevailed and less the original field research. Also in his philosophical writings such as B. *Die Welträthsel* (1899), *Die Lebenswunder* (1904), *Sandalion* (1910) or “Kriegsschriften” such as *Enigkeits* (1915) contain isolated statements about the origins and spread of people, the latter with a stronger reference to politics, ideology and Society. At one point he accuses the “mortal enemy England” of “mobilizing all the different human races to destroy the German fraternal people [closest related Germans]”:

[...] it calls [England] as allies the lower colored human races from all parts of the world together: first the yellow, slit-eyed Japanese, the perfidious pirates of the east! then the Mongols from India and the brown Malays from neighboring Malacca and Singapore; the black-brown Austral Negroes and Papuans from Oceania, the Kaffirs from South Africa and the Senegalese Negroes from the North African colonies – and thus no color of the deeply despised ‘lower human races’ is missing, and the variegated army of proud Albion also in ethnographic composition the ‘eternal world domination’ of the Anglo-Saxon island people demonstrated, the remnants of the redskins from America are dragged over to the blood-steaming battlefields of Europe! (Haeckel 1915, p. 86).

For the history of the university and anthropology of Jena, Haeckel's 1908, on the occasion of the 350th anniversary celebrations of the Salana, published *Our Ancestors (Progonotaxis Hominis) Critical Studies on Phyletic Anthropology* is particularly relevant, as it once again summarized the most important aspects of Haeckel's research this area together:

*Der Thüringer Universität Jena widme ich diese anthropologische Festschrift an dem Tage, an welchem sie das Fest ihres 350-jährigen Bestehens begeht. Ich wünsche unserer Alma Mater damit vor allem den aufrichtigen Dank auszudrücken, daß es mir vergönnt war, achtundvierzig Jahre hindurch im Dienste der Wissenschaft hier zu arbeiten und zu lehren [...] Diese geistige Freiheit ist besonders wertvoll für diejenige Forschungsrichtung, die erst innerhalb des letzten Jahrhunderts zur Geltung gelangte und die unter großen Hindernissen, gegenüber der Autorität ehrwürdiger Ueberlieferungen und mächtiger Vorurteile, sich mühsam Bahn brechen mußte; die moderne Entwicklungslehre und ihre Anwendung auf den Menschen (Haeckel 1908, without page number).*

The font also forms the journalistic conclusion of Haeckel's work on this topic. It also shows that Haeckel now also recognized a causal connection between anthropology and Darwinian theory in his views, unlike in 1868, when he saw anthropology exclusively as a special branch of zoology (with main branches of human morphology and physiology) (Hoßfeld 2006).

## 5 Brief History of the Institutions Concerned

### 5.1 Institute for Anthropology – Osteological Collection

The history of the osteological collection and anthropology in Jena begins in 1930. In that year, the appointment of the philologist and publicist Dr. Hans F. K. Günther to the “Chair for Social Anthropology” by Minister Frick, against the will of the Rector and Senate, who founded anthropology.<sup>82</sup> The following 85 years of existence of the subject anthropology at Jena University can be summarized in the following stages (Hoßfeld 2016, p. 434):

1. Seminar for social Anthropology under H. F. K. Günther from May 14th, 1930 to 1935/36,
2. Seminar/Institute/Institute for Anthropology and Ethnology under Bernhard Struck from 1935/36 to 1955 or 1960 (Struck continued to run the institute for 5 years after his retirement),
3. Institute for Anthropology under Herbert Bach from 1960 to 1974,
4. Institute for Anthropology and Human Genetics under Herbert Bach from 1974 to 1993,
5. Institute for Human Genetics and Anthropology under Uwe Claußen from 1993 to 2008.

This was followed by the renaming to the Institute for Human Genetics and the gradual processing of anthropology, which ended in 2011 with the outsourcing of the osteological collection.

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<sup>82</sup> Bach/Bach 1989, p. 7; Pittelkow 2018, p. 21; Pittelkow/Hoßfeld 2016, p. 71; Hoßfeld 2016, p. 241.

Günther began building up his institute and setting up the collection as early as 1930, mainly by recovering skulls and skeletal remains from an ossuary in Magdala, district of Weimarer Land, as well as donations, e.g. from the Kaiser Wilhelm Institute for Anthropology, to establish human heredity and eugenics. When he left for Berlin in 1935, the collection comprised 110 skulls, 3 complete skeletons, 76 individual bones, 26 fossil impressions and 49 hair samples.<sup>83</sup>

One year later, on December 1st, 1936, B. Struck as successor to Günther appointed director of the now renamed "Institute for Anthropology and Ethnology".<sup>84</sup> Struck, who to this day is considered to be the last representative who academically united the subjects of anthropology and ethnology in Germany (see Pittelkow/Hoßfeld 2016), continued to expand the osteological collection in the following years. One focus was on the reconstruction of the ethnographic collection by trying to bring the holdings of the former ethnographic museum back together.<sup>85</sup> Until his retirement, he succeeded in increasing the ethnographic collection to 2,000 inventory numbers (Bach 1958, p. 380; Pittelkow/Hoßfeld 2016, p. 75). This was done through purchases and the inclusion of his own collection of holdings of the Bidyogos, which he brought with him on a research trip to Portuguese Guinea, as well as the retrieval of some of the holdings of the Ethnographic Museum (Pittelkow/Hoßfeld 2016, p. 75). In this context, the 830 pieces returned to the Germanic Museum in 1921 were returned to the collection on October 17, 1937 (UAJ, Best. C; No. 799). In addition, on October 31, 1937, another 57 ethnographic objects from various collectors from the holdings of the Germanic Museum were added, all of which are artefacts such as arrowheads and bows (Verwaltungsakten 1937). Struck also succeeded in increasing the holdings of the osteological collection through excavations such as the Johannisfriedhof and the Collegium Jenense in Jena, as well as the complete excavation of the ossuary in Magdala. In 1960 it already combined 1,100 skulls, 60 skeletons, 10 partial skeletons, 11,000 individual bones, 175 casts, 39 wet preparations, 50 hair samples and a large number of skeletons that had not yet been inventoried (Pittelkow 2018, p. 50; Pittelkow/Hoßfeld 2016, p. 74).

Under Struck's successor, H. Bach, the institute was realigned. The ethnographic training was discontinued and the ethnographic collection was handed over on permanent loan to the Grassi Museum in Leipzig in 1969 (Bach/Bach 1989, p. 7). At the same time, the institute was renamed the "Institute for Anthropology" and in 1974 the "Institute for Anthropology and Human Genetics". In addition, it was integrated into the medicine department of the University of Jena (Bach/Bach 1989, p. 7). During this time, Bach also formulated a goal for the institute's

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<sup>83</sup> Bach/Bach 1989, p. 8; Bruchhaus/Finke 2009, p. 57; Pittelkow 2018, p. 26; Pittelkow/Hoßfeld 2016, p. 72; Hoßfeld 2016, p. 428.

<sup>84</sup> Bach 1958, p. 380; Bach/Bach 1989, p. 7; Pittelkow 2018, p. 28; Pittelkow/Hoßfeld 2016, p. 73.

<sup>85</sup> The University's Ethnographic Museum was founded in 1866 and quickly grew into one of the largest collections at University Jena. In the first decades of the 20th century it contained well over 10,000 inventory numbers. The museum was closed in 1920/21 and the holdings were distributed to other university and non-university institutions. See also Pittelkow/Hoßfeld 2016, p. 75.

anthropological research, which was to be retained until its dissolution and which determined the further expansion of the collection. This objective was: “Reconstruction of population-biological structures and analysis of the dynamics of population-biological processes in the Middle Elbe-Saale area” (Bruchhaus/Finke 2009, p. 57). In accordance with the objective, the collection was expanded in the following years exclusively with finds from the Middle Elbe-Saale area, which makes it unique in Central Europe due to the relatively closed settlement area with finds from seven millennia (Bach/Bach 1989, p. 8).

The expansions were made through our own excavations in the 1950s to 1980s, including several Slavic burial grounds and an ossuary in Altenbeuthen, as well as by taking over the holdings of other museums (Bach/Bach 1989, p. 8). As early as 1968 in the course of the third university reform in the GDR, when central institutions were founded, all skeletons from the holdings of the Prehistory and Early History Collection were loaned to the Osteological Collection.<sup>86</sup> This was followed by all excavation finds from the Museum of Prehistory and Early History in Weimar, as well as from smaller regional museums. As of 1987, the takeover of all holdings of the Museum of Prehistory in Halle was agreed and implementation began (Bach/Bach 1989, p. 7; Bruchhaus/Finke 2009, p. 57). Other holdings from the State Museum in Dresden followed later. Due to the immensely growing collections, a branch of the institute was set up on the Wasserburg Kapellendorf from 1986, where most of the collection was stored from then on (Bach/Bach 1989, p. 8). Only a small part of the collection (which was used for teaching and research purposes) remained in the attic of the institute in the Collegium Jenense. These expansions made it possible for the collection to grow to 25,000 individuals by 1989.<sup>87</sup>

After the political change, the institute and the collection remained unchanged for the time being. Bach was appointed to the chair for human genetics and the management of the osteological collection was the responsibility U. Jäger, who filled the professorship for anthropology. Due to the changed political constellations, however, the contracts with the previous state museums and current state offices for archeology in Dresden, Halle and Weimar were canceled, which means that from 1990 onwards, no new finds from excavations came into the osteological collection and this can therefore be regarded as closed. In fact, in the 1990s, the State Office in Halle began to bring the first objects from its holdings back to Halle, although this was never fully completed. All other loans remained within the collection.

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<sup>86</sup> The handover took place on May 7th, 1968. All human skeletons and fragments (with the exception of corpse fires) from prehistory and early history were given to anthropology as permanent loans. There were 169 boxes of 50 x 36 x 20 cm and 268 boxes of 45 x 26 x 18 cm in size. The handover protocol is contained in the 1968 administrative files.

<sup>87</sup> The traditions differ on this point. At Bach/Bach 1989, 8 there is talk of approx. 20,000 individuals at Bruchhaus/Finke 2009, p. 57 of 25,000 individuals. It is not currently possible to decide which of the two details is correct.

With the retirement of Bach and the assumption of the chair by U. Claussen was renamed “Institute for Human Genetics and Anthropology”. Since then, anthropology has played a minor role within the institute and the collection was replaced by H. Bruchhaus and L. Finke looks after. In the course of the departure of the two and the dissolution of anthropology at the university in 2011, the collection was only given by K. Kromeyer-Hauschild and later transferred to the depot of the State Office for Monument Preservation and Archeology in Weimar for safekeeping. This handover took place in two steps. The first thing to do in 2010 was to transfer the holdings from the Kapellendorf moated castle. Since these were contaminated by pigeon droppings, extensive repackaging of all holdings in the courtyard of the moated castle was carried out by students from various universities, which in some cases led to a mix of different finds.<sup>88</sup> The second complex of finds from the attic of the Collegium Jenenses was transferred in 2011 by the anthropologist of the State Office with the support of those doing community service at the State Office. A written agreement on the transfer, concluded between the State Office, the University of Jena and the University Clinic, was only made in 2013, which only changed the storage location and did not make any changes in property law. The ownership structure remained unchanged (Vereinbarung 2013). In the course of this handover, a quick inspection of the boxes was carried out by the anthropologist of the state office, S. Birkenbeil and S. Flohr based on a list by Bruchhaus and Finke.<sup>89</sup> Accordingly, at the time of handover, the collection consisted of 6538 magazine boxes, each 60 x 40 x 20 cm in size, which are stored in the external magazine of the state office in Kromsdorf, district of Weimarer Land.

The previous research on the holdings of the collection by E. Paust provided the following composition: 1082 boxes are part of the holdings of the Prehistory and Early History Collection, which were handed over in 1968 or recovered in joint excavations with anthropology. Another 316 boxes belong to the old anthropology inventory of the Friedrich-Schiller-University. These are distributed over 294 boxes with the finds from the Magdala ossuary, some of which were already recovered by Günther and in 1940 by the prehistoric historian Gotthard Neumann and Struck. 5 boxes contain the remains of French soldiers from a mass grave from 1813, which was recovered during road construction in Weißenfels and which came to the University Jena. 17 boxes contain collection material that may have a colonial background, including skulls from Guinea-Bissan, Namibia, Papua New Guinea, etc., as well as a box with a skeleton that G. Neumann was recovered during his service on

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<sup>88</sup> In the course of the processing of skeletal material from the Jenense Collegium, which was stored in Kapellendorf and repackaged there, some individuals that were originally packed separately and scattered were poured into joint bags, which led to a sometimes irreparable mixing of the found material. That this took place during the repackaging, and not earlier, can be traced from the slip and the packaging material.

<sup>89</sup> The Excel list created in the process was sent to Kromeyer-Hauschild in January 2015. E. Paust from the Seminar for Prehistory and Early History Archeology to review the holdings of the Prehistory and Early History Collection. It serves as the basis for all research to this day.

the Eastern Front in World War II. It concerns a member of the Turkish bodyguard of the Russian Tsarina Elisabeth, who was buried in the Ukraine and excavated by Neumann and sent to Struck.

A further 4961 boxes from the collection's holdings were loaned from other institutions. The largest part of it belongs to the excavation finds of the State Office for Monument Preservation and Archeology in Weimar, other finds to the museums in Bad Frankenhausen, Berlin, Mühlhausen, Gotha, Altenburg, Sangerhausen, Magdeburg, Merseburg, Buttstädt, Egel, Eisleben, Halberstadt, Haldensleben, Schönebeck, Sondershausen, Stendal, Wolmirstedt and Zeitz. In addition, a further 178 boxes have not yet been recorded in detail and must be fully checked.

Even before the anthropology was dissolved and the finds were transferred to Weimar, Bruchhaus had occasionally transferred objects to other collections, sometimes without any written documentation. In 1997, eight over-modeled and painted human skulls, presumably from Papua New Guinea, were handed over to the Anatomical Collection (Übergabeprotokoll Anatomie 1997). Oral sources also know that finds from Saxony and from the ossuary in Magdala were brought from Bruchhaus to the forensic medicine department in Chemnitz.<sup>90</sup> The extent of these holdings and whether material has been given to other institutions cannot yet be estimated.

Overall, the osteological collection can be said to be unique in Central Europe due to its composition. Including the holdings of the Prehistory and Early History Collection and the Anatomical Collection, the collection has a cross-section of the population of the Middle Elbe-Saale area from the appearance of the Neanderthals in Thuringia up to the 20th century.

## 5.2 Phyletic Museum

The history of the collections of the Phyletic Museum and the Zoological Institute can be traced back to the 18th century. The starting point is the purchase of the Walchen Naturalienkabinett by Duke Carl August von Sachsen-Weimar in 1779 (Fischer/Brehm/Hoßfeld 2008, p. 100). The holdings of the cabinet, together with items from the ducal art chamber, formed the basis for the ducal museum and the Carl-August-Museum set up in the Jena City Palace. In 1839 the “Zoological Cabinet”, which at that time still belonged to the mineralogical holdings, already comprised 2,073 numbers (ibid. 2008, p. 100). With the separation of the zoological holdings from the Mineralogical Cabinet under Oscar Schmidt in 1850, the story of an independent zoological museum at Jena University begins. As the institute's teaching collection, this collection formed the core of the collection that still exists today (Förster/Stoecker 2016, p. 37).

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<sup>90</sup> Oral information about Dr. J. Novacek from the State Office for Monument Preservation and Archeology in Weimar, handover protocols do not exist for these processes.

The collection was greatly expanded under Ernst Haeckel through donations and purchases. Haeckel expanded it as a teaching and research collection and saw in it a basis for a Phyletic museum to be built up (Förster/Stoecker 2016, pp. 37–38). The museum was largely empty when it was inaugurated on July 30, 1908, as Haeckel himself did not draw up any specific exhibition plans. The first basis for the later exhibition were plans by the first curator Leonhard Schultze-Jena, which were then extended and implemented by Ludwig Plate. On April 1, 1909, Plate took over the Phyletic Museum as director. He opened the first exhibition in 1912 with four halls, the complete furnishing of all halls was not to be implemented until 1928. Around 90% of all exhibits had to be newly purchased in order not to steal the best pieces from the collections of the zoological institute and thus not endanger teaching. However, since the museum was planned without storage rooms, the majority of the non-exhibited collection had to remain in the premises of the Zoological Institute (Fischer/Brehm/Hoßfeld 2008, p. 100).

A major expansion of the holdings took place in 1968, when the Geological-Paleontological Institute was dissolved in the course of the third university reform in the GDR and a large part of the holdings was transferred to the Phyletic Museum. A year later, many pieces from the zoological institute were also relocated to the museum (ibid. 2008, p. 100).

From 1969 a systematic cataloging of the holdings of all collections took place under the custodian Dietrich von Knorre (ibid. 2008, p. 99). Currently there are around 500,000 pieces in the inventory, less than 1% of which are on display in the Phyletic Museum (ibid. 2008, p. 97).

With the exception of the period from 1974 to 1993, both the Phyletic Museum and the Zoological Institute were managed in personal union (Förster/Stoecker 2016, p. 43). The individual line sections of the museum can be summarized as follows (Fischer/Brehm/Hoßfeld 2008, p. 105):

1. Ernst Haeckel from 01.01.1907 to 01.04.1909
2. Ludwig Plate from 01.04.1909 to 01.10.1935
3. Jürgen W. Harms from 01.10.1935 to 31.01.1950
4. Eduard Uhlmann from 01.02.1950 to 30.04.1952 or on a provisional basis until 01.09.1954
5. Manfred Gersch from 01.09.1954 to 01.09.1974
6. Horst Füller from 01.09.1974 to 01.04.1993
7. Martin Fischer from 01.11.1993 to 30.09.2021
8. Andreas Hejnol since 01.10.2021.

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Fig. 4–10: Friedrich-Schiller-Universität Jena, Seminar für Ur- und Frühgeschichtliche Archäologie, I. Przemuß.

Fig. 11: [https://de.wikipedia.org/wiki/Deutsch-Ostafrika#/media/Datei:Deutsch\\_Ost-Afrika,1892.jpg](https://de.wikipedia.org/wiki/Deutsch-Ostafrika#/media/Datei:Deutsch_Ost-Afrika,1892.jpg) (26.05.2021).

Fig. 12: Friedrich-Schiller-Universität Jena, Universitätsarchiv, Best. S. Abt. XLVII, FB Abt. 5, Inst. f. Anthropologie u. Völkerkunde, Inventarbuch der Osteologischen Sammlung.

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Fig. 14: Friedrich-Schiller-Universität Jena, Universitätsarchiv, Vermehrungsbuch Zoologische Sammlung, 1895–1909, 1927–1935, S. 201f.

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## Addresses for Correspondence

Dr. Enrico Paust  
Seminar für Ur- und Frühgeschichtliche Archäologie  
Friedrich-Schiller-Universität Jena  
Löbdergraben 24A  
07743 Jena  
Germany  
Phone: 03641/944899  
Email: enrico.paust@uni-jena.de

Dr. Carlies Maria Raddatz-Breidbach  
Sonnenbergstr. 1  
07743 Jena  
Germany  
Email: cmrabreidbach@t-online.de

apl. Prof. Dr. Uwe Hoßfeld  
Arbeitsgruppe Biologiedidaktik  
Institut für Zoologie und Evolutionsforschung  
Fakultät für Biowissenschaften  
Friedrich-Schiller-Universität Jena  
Am Steiger 3  
Bienenhaus  
07743 Jena  
Germany  
Email: uwe.hossfeld@uni-jena.de

apl. Prof. Dr. Joachim Bauer  
Universitätsgeschichtliche Forschungsstelle  
Friedrich-Schiller-Universität Jena  
Bibliotheksplatz 2  
07743 Jena  
Germany  
Email: joachim.bauer@uni-jena.de

PD Dr. Stefan Gerber  
Universitätsarchiv mit Universitätsgeschichtlicher Forschungsstelle  
Friedrich-Schiller-Universität Jena  
Bibliotheksplatz 2  
07743 Jena  
Germany  
Phone: 03641/9401908  
Email: stefan.gerber@uni-jena.de