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“Materialised images” of syphilis in the 1st half of the 20th century at Rostock

ABSTRACT

Syphilis is defined as a sexually transmitted disease caused by the organism spirochete pallidum. It has concerned medicine since its appearance in Europe at the end of the 15th century. In the 19th and 20th centuries in particular, newly established clinics for dermatology and syphilis began to produce teaching material describing syphilis. With the development of antibiotics at the beginning of the 2nd half of the 20th century, syphilis became sufficiently treatable. Its importance changed and we lost the memory of the great impact syphilis had on medicine and society. So what was syphilis like before? I think the answer lies in the historical collections. Writing history from the perspective of medical objects requires a field of research called “material history of medicine.” I will introduce it and my method of “object information analysis.” Then I will go through the Dermatological Collection Rostock with a focus on objects (“plates” and “moulages”) depicting syphilis (“materialised images”). They were made in the first half of the 20th century. Although the collection was severely decimated during the Second World War, a “post-war syphilis teaching collection” survived. This gives us a vivid picture of syphilis at a time when the discourse of visualisation was perhaps most influential among scholars such as those in Rostock.

Keywords: collections research, material history of medicine, object information analysis, syphilis

Słowa kluczowe: badania zbiorów, materiałowa historia medycyny, analiza informacji o obiektach, kiła

Part I: Material history of syphilis in medicine

You can imagine material history of medicine like a pyramid (Fig. 1). The base is the paradigm to take the perspective of the object. To do so you need methods. These are well known: inventory, documentation, digitalisation, historical contextualisation. To organise all information theories help. One theory I worked with in my doctoral thesis is the “materialisation of micro history and discourse.” It’s my postmodern view following Michel Foucault, Clifford Geertz or Jacques Derrida. That means objects do appear as they appear. This “as” or “how” materialised through manufacturing, handling, using or preparing what itself is close to thinking, talking or acting (due to Foucault). On the one hand we are in contact with the objects in a discursive universe where social discourses are understandable (due to Geertz) but on the other hand object signs are not absolute we need to de- and recontextualise them (due to Derrida). What we finally write is a material history of that what interests like for example teaching.



Fig. 1. Theoretical framework of material history of medicine

Source: own elaboration.

In my doctoral thesis I documented and analysed the objects very consequent. At least I called it: “Object information analysis.” Object information means every information you can observe or measure at the object. In Fig. 2 it is illustrated with a cube you can turn in all directions and describe it systematically (information A, B, C ...) with its attributes (i, ii, iii, iv ...). In this way, material diversity can be operationalised and analysed empirically. The object is mostly part of a stock with other similar objects (object neighbours: 1, 2, 3, 4 ...) where you can compare the object information in

series. And these series describe special phenomena of serial object information: continuities (1Ai, 2Ai, 3Ai, 4Ai ...), discontinuities (1Ai, 2Aii, 3Aiii, 4Aiv ...) or breaks (1Ai, 2Ai, 3Aii, 4Aii ...). Further you can compare or correlate these series and describe other phenomena: positive correlations (f.e. 1Ai, 2Ai, 3Aii, 4Aii ... to 1Bi, 2Bi, 3Bii, 4Bii ...) and negative correlations (1Ai, 2Ai, 3Ai, 4Ai to 1Bi, 2Bii, 3Biii, 4Biv ...). Over all there can be described a formation of all single and serial object information with its phenomena which can be contextualised micro historically and interpreted discourse analytically. What appears are actors, places, practices (micro history) and different discourses (scientific, ethical, cultural, aesthetic, economic or political) which become subjects of research in material history of medicine. In summary object information analysis is a structural and hermeneutical approaches to read, understand and interpret an object, a stock of objects and the collection at all.

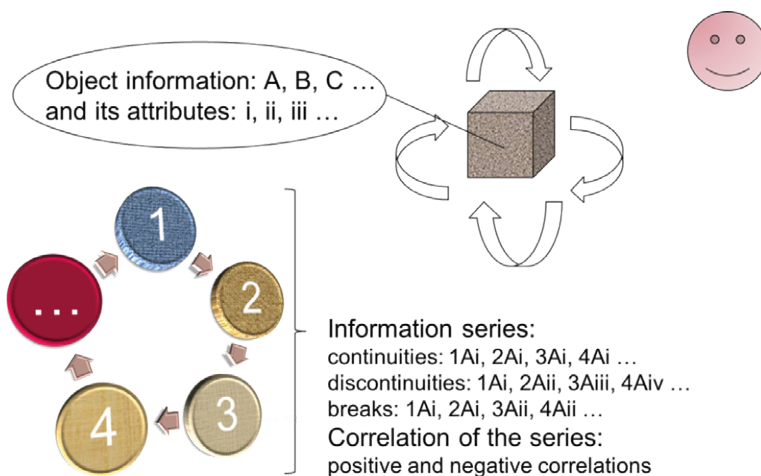


Fig. 2. Object information analysis

Source: own elaboration.

I come to an early state of my research that concerns directly the understanding of syphilis (Fig. 3). I like to distinguish between the two questions “What is syphilis?” and “How is syphilis?” The intellectual roots of these questions seem obviously: epistemology or medical sciences on the one hand and material research on the other hand. Every domain is more or less filled up with conventional approaches. I guess the question “What is syphilis” had been more common in history of medicine. Both questions I like to bring together in a dialectical manner: “What is how and how is what?” In a synthesis I suppose that syphilis had been produced by capturing, processing and releasing syphilis in the ambulances, laboratories, wards, lectures or libraries in medicine (man-made syphilis) but also in other fields where syphilis came in contact with like politics, military, law or education. What might be interesting about syphilis is that it had been produced strongly at all fields as also and perhaps especially in Rostock.

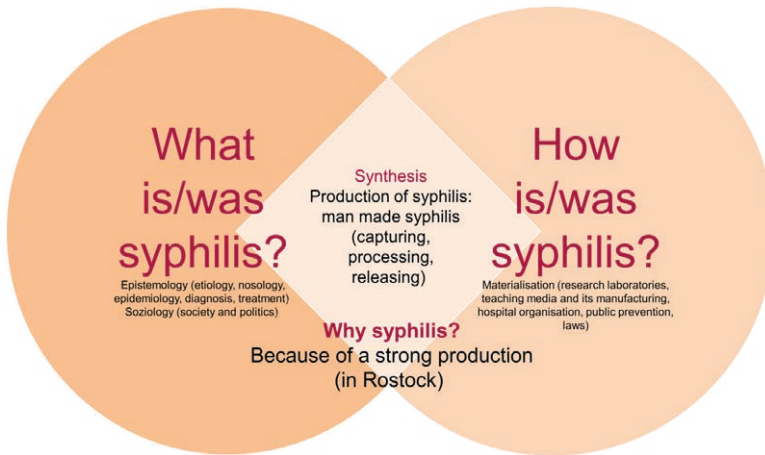


Fig. 3. Dialectical model of the history of syphilis

Source: own elaboration.

Part II: What had left is still syphilis: The “post-war syphilis teaching collection”

Nearly the whole collection had been destroyed after air bombs fell on Rostock in World War II. Sigrid Wulff (1920–1948) reports us about in her clinic history (doctoral thesis) as eyewitness. She counts the lost or decimated stocks:

This scientific development was hampered by the repeated destruction of all scientific collections and laboratories by enemy air raids in the war years since 1942 [1942 and 1944 – C.D.]. The valuable moulage collection with over [2000 to – C.D.] 3000 wax moulages, the photo collection built up over decades, the histological preparations built up in a special department, which go into the thousands of blood tests, the scientific card indexes of the clinic [library plates – C.D.], as well as those of the scientific private collection of the head of the clinic [plates of 3rd director – C.D.] with all the documents that meant the precipitation of the experience, reports and knowledge collected over decades [...].¹

¹ “Diese wissenschaftliche Entwicklung wurde gehemmt durch die mehrmalige Zerstörung sämtlicher wissenschaftlicher Sammlungen und Laboratorien durch feindliche Luftangriffe in den Kriegsjahren seit 1942. Die wertvolle Moulagensammlung mit über 3000 Wachsmoulagen, die in Jahrzehnten aufgebaute Lichtbildersammlung, die in einer besonderen Abteilung aufgebauten histologischen Präparate, die in die Tausende zählenden Blutbefunde, die wissenschaftlichen Kartotheken der Klinik, sowie die der wissenschaftlichen Privatsammlung des Leiters der Klinik mit sämtlichen Unterlagen, die den Niederschlag der in Jahrzehnten gesammelten Erfahrung, Berichte und Erkenntnisse bedeuteten [...]” S. Wulff, *Die Entwicklung der Dermatologischen Universitäts-Klinik und Poliklinik in Rostock*, Doctoral Thesis, University of Rostock 1945, p. 69. See also the chronology of destruction in chapter 8.2.2 [in:] C. Dahlke, *Die Rostocker Moulagensammlung. Wissenschaftliche Erfassung, historische*

In special Wulff finds drastic words for the decimation of the moulage collection: “restlos vernichtet”² (“completely devastated”), but she also states that “a few”³ moulages have left. These pieces “testify to the high level of artistic and scientific creation.”⁴

But this “restloser Rest” had been sufficient enough to teach syphilis! There are seven syphilis moulages of 32 moulages left (22%), 21 of 21 plates with syphilis pictures out of the historical clinic library (100%) and 9 of 75 plates with syphilis pictures from the third director (12%). I will go through these stocks in this chapter, focusing on their nosological rearrangement to teach syphilis under post-war conditions.

The first stock contains moulages. They demonstrate pathologically altered human body parts, moulded (french: *mouler*) life sized in coloured and painted wax with cloth binding, fixed on a board with number and diagnosis mostly protected with a glass cube.⁵ There are six moulages left, which show all states of syphilis (I, II, III) located at the head (Fig. 4). The 7th moulage shows the special syphilis congenita also located extragenital (situated outside the genitals) and completes this stock nosologically.



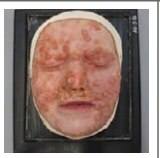
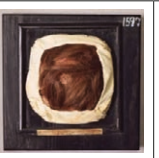


					
a) Syphilis I	Syphilis II		d) Syphilis II/III	Syphilis III	
primary lesion	b) papules	c) papules	framb. Syphilid	e) rhyphia	f) gumma
tongue	soft palate	face	scalp	brow/forehead	bottom lip
A 51.2	A 51.3	A 51.3	A 51.3/ A 52.7	A 52.7	A 52.7
UHK 114	UHK 108	UHK 130	UHK 117	UHK 121	UHK 101

Fig. 4. Classified syphilis moulages with phenomena, location, ICD 10-key and inventory number

Source: own elaboration, photographs based on Christian Dahlke (a, b, c, e, f) and Johanna Lang (d).

Kontextualisierung und Diskussion der Moulagen sowie der historischen Lehrmittelbestände der Dermatologischen Sammlung der Universitäts-Hautklinik Rostock, Doctoral Thesis, University of Rostock 2019, pp. 239–243, https://doi.org/10.18453/rosdok_id00002863.

² S. Wulff, *op. cit.*, p. 70.

³ *Ibidem*, p. 53.

⁴ *Ibidem*, p. 53.

⁵ See the entire stock as a catalogue in the appendix of my doctoral thesis [in:] C. Dahlke, *Die Rostocker Moulagensammlung...* See also for moulage definition in English, T. Schnalke, *Diseases in wax: The history of the medical moulage*, Berlin 1995. See for newer research, H. Eßler, *Krankheit gestalten. Eine Berufsgeschichte der Moulagenbildneri*, Bielefeld 2022.

This completeness might not be a coincidence, after bombing the collection on February 24, 1944.⁶ Wulff doesn't tell us about the amount and composition of the survived moulages while most likely 99% of the collection got destroyed.⁷ But these syphilis moulages seemed to be searched out or rearranged⁸ for reasons of teaching, and they show the discourse of how syphilis got understood: as a system of phenomena, location and nosological classification. So the moulages represent syphilis of the head at its all states. And further object information series can be interpreted as a preparation and reorganisation for teaching.⁹

But this little amount represents only one part of the huge phenomenology of syphilis. We go on with the next two stocks which contains plates. Plates as given in the Dermatological Collection of Rostock are solid cardboards sticked on with figures from mostly moulages printed in atlases, labelled with diagnosis, little texts and numbers on the front or back.¹⁰ First we look on the plates most likely produced by the third clinic director Ernst Heinrich Brill (1892–1945).¹¹

The nine plates left in Brill's collection again show all states of syphilis (I, II, III, six of them in Fig. 5) with syphilis congenita (UHK 15, not shown in Fig. 5). Brill had used the term "lues" instead of "syphilis." Both terms had been common. As you can see the locations differ from figure to figure respectively plate to plate, that refer to syphilis as a disease not only of the head – as the syphilis moulage group might suppose – but of all locations. And there are more known phenomena of the second state shown than "papules": "roseola" and "plaques." Even if the figures are not life size like moulages more phenomena can be demonstrated at one cardboard what expands visual knowledge significantly under conditions of decimated little amounts of stocks.¹² And there can be

⁶ S. Wulff, *op. cit.*, p. 53.

⁷ The material status of the moulages gives advice for direct damage, for example the loss of glass cubes, but there also unharmed moulages. The question is, did they get picked up out of the ruins or did they survive at another place? In favour of the material status I suppose, they got picked up out of the ruins with a lot of other moulages. See chapter 8.2.3.2 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 245–246. But in favour of the nosological status, I show in this article, I suppose they got searched out in a second step after having picked up.

⁸ We might ask epistemologically, if not the author has rearranged these moulages? First this is right! But I base myself on the medical discourse on the nosology of syphilis at the time the moulages were made, which, despite small differences, was quite stable and has not undergone any fundamental changes to date. But precisely these small differences are a research question. One of these little differences is the diagnosis "Syphilis II/III" in Fig. 4, 4th column. See C. Dahlke, *Die Syphilismoulagen der Rostocker Hautklinik in den Jahren 1902–1945*, "Akt Dermatol" 2020, Vol. 46, p. 384.

⁹ See for example the preparation of the labels with diagnosis in chapter 5.1.2.3 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 79–82.

¹⁰ Despite there is a research focus on moulages with a high rate of publications, the contemporaneous object of the plate has not that focus. Has research forgotten them? I don't know any plate collection, discussed in context to the moulage collections.

¹¹ See the entire stock in table 14 (appendix) [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, p. XXXIII.

¹² This practice of collecting several pictures on cardboards shows especially under the condition of unexpected decimation its advantage in contrast to moulages which in majority were single. But the practice mentioned took place under other conditions, namely of teaching comprehensively the phenomenology and nosology of diseases like syphilis (see next chapter).

more knowledge imparted like aetiology: two plates of Brill's collection (UHK 72 and 73, not shown in Fig. 5) show eight figures with the pathogen spirochete pallidum under the microscope and abstracted as models. Probably around 50% of Brill's plate collection got lost what can be reconstructed with the nosological composition that contains all known diagnosis but with gaps in the nosological numbering on the back of the plates.¹³ One interpretation could be that the present stock was searched out of an index before it was destroyed. That means I propose a sufficient teaching collection.



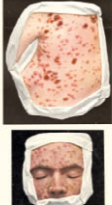



					
a) Lues I	Lues II				f) Lues III
primary lesion	b) roseola	c) papules	d) papules	e) plaques	gumma
lip/penis/ finger	neck/chest	back/face	toes/palm	lips	face/hand
A51.0, A51.2	A 51.3	A 51.3	A 51.3	A 51.3	A 52.7
UHK 64	UHK 56	UHK 61	UHK 62	UHK 63	UHK 71

Fig. 5. Classified syphilis moulages figures at plates with phenomena, location, ICD 10-key, inventory number

Source: own elaboration, scans based on Christian Dahlke.

The last stock concerns the library plates (Fig. 6) established under the first two clinic directors Maximilian Wolters (1861–1914) and Walter Frieboes (1880–1945).¹⁴

The 21 plates left have to be seen like the stock of moulages as the top of an iceberg that had survived the destruction.¹⁵ The most important advice gives the provenance of the figures out of atlases from the 1910th to the 1930th (see next chapter) but also the different clinic stamps which had been used over the decades. Very interesting is that all

¹³ See table 15 (appendix) [in:] C. Dahlke *Die Rostocker Moulagensammlung...*, p. XXXIV.

¹⁴ See the stock with 11 plates in table 13 (appendix) [in:] *ibidem*, p. XXXII. After closing the appendix of Dahlke (further 10 plates of the library collection appeared (UHK 287–297). They haven't been published yet.

¹⁵ There are hints that the library plates took the same odyssey as the moulages after bombing the hospital in 1942. That means they stayed together until the final bombing in 1944. See *ibidem*, pp. 237–239.

plates show syphilis what refers to an origin index of syphilis plates departed of other diagnoses in the library. To reconstruct the origin syphilis index partially the nosological numbering at the back of the plates is to be analysed (Tab. 1). The arrangement in Fig. 6 is based on it.






				
Syphilis I: extragenital	Syphilis I: genital	Syphilis congenita: skin/ mucosa mouth	Syphilis congenita: teeth/ other organs	Syphilis II: genital
upper lip/finger	labia/labia/penis	face/legs	teeth/liver	labia/penis
A 51.2	A 51.0/A50.0/?	A50.0/ A50.5+M90.26	A50.5/ A50.5+K77.0	A 51.3
UHK 287	UHK 80	UHK 76	UHK 293	UHK 296

Fig. 6. Classified syphilis figures at plates with location, ICD 10-key and inventory number

Source: own elaboration, scans based on Christian Dahlke.

Tab. 1. Nosological numbering of the plates and their amount in [] systematically organised from Frieboes II

Wolters	Frieboes I	Frieboes II	possible groups of Frieboes II
L.I.2/ L.II.10	1)1...12 [4]	1a [4]	Syphilis I: extragenital
L.II.12	2)7	1b [1]	Syphilis I: genital
L.c.1...16 [11]	7)1...25 [15]	2a [10]	Syphilis congenita: skin/ mucous membrane of the mouth
		2b [5]	Syphilis congenita: teeth/ other organs
L.II.19	3)12	3b [1]	Syphilis II: genital

Source: own elaboration.

At the back of the plates there are different numbers written down most likely by Wolters and Frieboes. Wolters still had abbreviated the nosological states: L. = Lues I., II. and c. = congenita. The following arabic number corresponds to the plate number. Frieboes had transferred the states into numbers, so that they can be understood as nosological numbers (Frieboes I). With look at Frieboes' second numbering (Frieboes II), he'd probably implemented two superior groups of location, which divide between *extragenital* (a) and *genital* (b) phenomena. That was common at that time. Frieboes made also a distinction at syphilis congenita from his first to second numbering between skin/mucous membrane (2a) and teeth/other organs (2b) as bones, lounge or liver (see next chapter). With respect to the distribution of the diagnoses, it's noticeable that one diagnosis: syphilis congenita stands out with 15 plates (71%). In relation to the syphilis moulages group (1/7) and Brill's syphilis plates group (1/9) the syphilis congenita library plates group (15/21) fills up the gap of syphilis congenita. It might be again no coincidence when these plates got picked up out of the bombed ruins but also sorted out in a further step for teaching.

In summary this merged historical syphilis teaching material isn't a coincidence of destruction at all, but also a well arranged attempt to teach syphilis in times after World War II under the historical conditions of rising syphilis till the end of the 1940th and a lack of money for teaching material or people for producing it till the end of the 1950th.¹⁶ Therefore we can call it "post-war syphilis teaching collection."

Part III: Before the destruction: Make syphilis visible: "materialised image"!

The first scholar for Dermatology and Syphiligraphy in Rostock Maximilian Wolters (directorship 1902–1914) started in April 1902 with a polyclinic at the University Hospital where internal medicine and surgery were located.¹⁷ Very soon he gives a statement about the need and kind of teaching material as well as technique for documenting cases:

Likewise, there were no means of acquiring wax replicas [moulages] following the example of other clinics which make good and successful teaching much easier than demonstrations of pictures. Nevertheless, this valuable but expensive illustrative material could be dispensed with if newer atlases were available and, above all, a photographic device made it possible to capture the cases observed in the polyclinic in stereoscopic images, and to use them in later demonstrations.¹⁸

¹⁶ See the historical situation at that time in Rostock with respect to syphilis and teaching material in chapter 8.3 [in:] *ibidem*, pp. 247–249.

¹⁷ See chapter 6.1 [in:] *ibidem*, pp. 161–162.

¹⁸ "Desgleichen waren keine Mittel vorhanden, um nach dem Beispiele anderer Kliniken Wachsnachbildungen [Moulagen, d. Verf.] anzuschaffen, die eine gute und erfolgreiche Belehrung viel leichter machen, als die Demonstrationen von Bildern. Gleichwohl würde auf dieses werthvolle [sic!], aber theure [sic!] Anschauungsmaterial verzichtet werden können, falls neuere Atlanten zur Verfügung ständen, und vor allem eine photographische Einrichtung ermöglichte, die in der Poliklinik beobachteten Fälle im stereoskopischen Bilde festzuhalten, und bei späteren Demonstrationen zu benutzen." "Memorandum, die Poliklinik für Haut- und Geschlechts-Kranke in Rostock betreffend," without

Further Wolters mentions the inventory of the atlases from Ferdinand von Hebra (1816–1880), published 1867 and 1869, which is “no longer up to date and with numerous gaps” and from Moriz Kaposi (1873–1902), published 1873, 1874 and 1875, which is “more suitable for hand use by students and doctors.”¹⁹ Instead he counts other (“the best”) atlases needed for “rational teaching”: *Atlas of rare skin diseases* (published 1889–1899), *Atlas de Hôpital St Louis* (unknown year), *Atlas of syphilis by Neumann* (published 1896) and *Neisser's stereoscopic atlas of dermatology* (published 1900).²⁰ These results make obviously clear that with Wolters an expert had come to Rostock. All atlases touches special discursive knowledge: the *Atlas of rare skin diseases* is an outstanding product of international cooperation.²¹ The well-known Hospital of St. Louis possesses a huge collection of moulages and photographs continuously updated.²² Isidor Neumann (1832–1906) is an expert in syphilis for long years as scholar for Dermatology and Syphiligraphy at the University of Vienna who also used the anatomical microscopy (histopathology)²³ – the research field of Wolters, too. And at least beneath the very well-known Albert Neisser

author [Wolters – C.D.], address and date [shortly after August 1902 – C.D.], LHAS [State Main Archive Schwerin, Germany] 5.12-7/1, file 2309, sheet 13. Own translation. Note: All following quotes are own translations.

¹⁹ *Ibidem*. Note: The atlases can be found in the Rostock University Library with the stamp “Ex Bibliotheca Academiae Rostochiensis.” Most likely Wolters is referring to these atlases. These atlases all show large colour lithographs. There are much more volumes of Hebra's atlas known than the two ones at the Rostock University Library. Maybe Wolters refers on that fact when he talks about “numerous gaps.” He also might have meant nosological gaps. What could have “not up to date” might be not only knowledge but also materials.

²⁰ I researched all the atlases to get the year of publication. Neumann's atlas is also in the University Library of Rostock, with the stamp of the dermatological clinic, so Wolters had the book procured.

²¹ This atlas got published by Malcom Morris, Paul Gerson Unna, Henry-Camille Crysostome Leloir and Louis Adolphus Duhring in 14 issues with three to five articles printed in French, German and English written by a wide range of international some well-known authors. Six new dermatoses have been described. The large format booklets were illustrated with highly detailed colour lithographs and histological drawings. Also first clinical photographs were used. See N. Kuner, W. Hartschuh, *Erstbeschreibungen im „Internationalen Atlas seltener Hautkrankheiten“ von 1886, “Hautarzt”* 2003, Vol. 54, pp. 67–72. A similar later work is the *Iconographia dermatologica* by Albert Neisser and Eduard Jacobi, published in 1910 (*ibidem*). This work in turn can be found in the University Library of Rostock, with the clinic stamps under the directorates of Wolters, Frieboes and Brill, what marks its long lasting signification! It had been published in several issues starting in 1906. The articles had been in German, English and French. Very different are the illustrations! There are no lithographs anymore but photographs of moulages in colour, of people in black and white, also histological drawings in black and white and coloured moulage drawings. See this chapter below.

²² The moulagist Jules Barreta made his first moulage in 1867 in St. Louis and he came up with around 2300 moulages, which were exhibited at the first International Congress of Dermatology and Syphiligraphy in Paris in 1889 in a dedicated museum. After that, Barreta received many orders from all over the world. See G. Tilles, *A visitor's guide to l'Hôpital Saint-Louis, the wax moulages museum and the Henri-Feulard library*, 2002, pp. 79–84, 92–94, https://www.moulagen.de/fileadmin/user_upload/microsites/ohne_AZ/m_cc01/moulagen/A_visitors_guide...pdf [accessed: 14.01.2023].

²³ See N. Jantsch, *Isidor Neumann von Heilwart* [in:] *Österreichisches Biographisches Lexikon*, 1976, https://www.biographien.ac.at/oebl/oebl_N/Neumann-Heilwart_Isidor_1832_1906.xml [accessed: 14.01.2023].

(1855–1916), scholar in Breslau (today Wrocław), first descriptor of the pathogen of gonorrhoea, founder of the “German society in defending venereal diseases” (DGBG) in 1902,²⁴ whose member Wolters will be with 1903, it is the method of stereoscopic visualisation that makes the disease more haptic in mind.²⁵ With these first findings: when Wolters speaks about “rational teaching” – he does not explain it – he might not only think of the newest disease knowledge within the discourse of pathological anatomy but also of imparting it with instruments within the discourse of visualised teaching.²⁶ And vice versa, he might think of the newest teaching material (especially moulages) but also of imparting it with disease knowledge. What gets produced is a “materialised image of disease.”²⁷ The dermatologist Franz von Veress (unknown life dates) summarises in 1908:

At the universities, the object lesson by showing sick people is becoming more and more extended at the expense of the formerly general theoretical lectures. Of course every teacher is endeavouring to increase the number of teaching materials and to design them in such a way that they are always at hand. Photographs or coloured illustrations take the place of the transient changes [skin symptoms – C.D.] and the patient who is not always available. But the best way to help yourself is with so-called moulages, [...]. It is a fact that in dermatology a well done colour wax cast [moulage – C.D.] is worth more than the most detailed description.²⁸

For the first years of Wolters’ directorate until he starts to build up a moulage collection in 1909 the most important and only teaching instrument had been the illustration – respectively pictures fixed on a cardboard (plate).²⁹ Table 2 gives an overview in which atlas and year the pictures got published.

²⁴ See E.J. Worner, *Albert Neisser* [in:] *Neue Deutsche Biographie*, 1999, <https://www.deutsche-biographie.de/pnd118738380.html#ndbcontent> [accessed: 14.01.2023].

²⁵ Two photos were taken simultaneously with a stereo camera. These were printed parallel to one page in the atlases and could be viewed with a stereo viewer. This created the three-dimensional effect. This technique was widely used until the beginning of the First World War and the upcoming of the film. See A. Bergua, U. Schönherr, F.W. Stahnisch, *Albert Neissers (1855–1916) „Stereoskopischer Medicinischer Atlas” – eine Pionierarbeit der 3-D-Fotografie in der Geschichte der Augenheilkunde*, “Klin Monbl Augenheilkd” 2010, Vol. 227, No. 5, pp. 433–438.

²⁶ We should have in mind that both discourses developed earlier in the late 18th and then 19th century in critical demarcation to the theory of the four humors. See history of medicine, R. Porter, *Die Kunst des Heilens. Eine medizinische Geschichte der Menschheit von der Antike bis heute*, Heidelberg–Wien 2000, pp. 307–350. See English original publication, Porter 1999. See also history of visualisation in dermatology, F. Schenderlein, *Zur Entwicklung und Bedeutung graphischer und plastischer Darstellungen von Hautkrankheiten als Lehrmittel im 19. Jahrhundert*, Doctoral Thesis, Technical University of Dresden 1989, pp. 8–10, 74–75.

²⁷ That means you cannot find the disease weather in the brain of a physician nor in an atlas, at a plate or on the surface of a moulage respectively patient. We even need to ask where it is and maybe have to answer everywhere or better in between. You can’t catch it. Just try.

²⁸ F. Von Veress, *Neues Verfahren zur Herstellung möglichst naturgetreuer Moulagen*, “Monatshefte für Praktische Dermatologie” 1908, Vol. 47, p. 497.

²⁹ *Vide* “for this purpose [substitute for patients – C.D.], that of the illustration was used first,” M. Wolters, 30.05.1910, pp. 2–3, LHAS 1921, n.[o] p.[agination]. See full quotation [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 162–163.

Tab. 2. Subdivision of the library plate collection according to atlases correlated to clinic stamps/directors

Plate (inventory number)	Atlas	Stamp
UHK 81, 287	Jacobi, <i>Haut- und venerische Krankheiten</i> , Berlin–Wien 1904 .	Wolters
UHK 80, 288, 289	Jacobi, <i>Supplement</i> , Berlin–Wien 1906 .	Wolters
UHK 76, 77, 292–294, 296	Engel-Reimers, <i>Die Geschlechtskrankheiten</i> , Hamburg 1908 .	Wolters
UHK 82–85, 291	Zinsser, <i>Syphilis des Mundes</i> , Berlin–Wien 1912 .	Wolters
UHK 79, 295	Zieler; Jacobi, <i>Hautkrankheiten</i> , Berlin–Wien 1924 [or 1928].	Frieboes
UHK 78, 290	Frieboes, <i>Haut- und Geschlechtskrankheiten</i> , Leipzig 1928 .	Frieboes
UHK 297	Frieboes, <i>Ergänzungsband</i> , Leipzig 1930 .	Frieboes

Source: own elaboration.

The first plates contain pictures out of the atlases by Jacobi, published 1904 and 1906, none of them Wolters had mentioned in his statement from 1902. What he could not have known, in 1903 Eduard Jacobi (1862–1915), scholar in Freiburg i.Br., started to publish moulages out of his and other clinic collections especially from Neisser (Breslau), the Hospital St. Louis (Paris), Berlin or Vienna.³⁰ The pictures had been for the first time colour photographs without postprocessing because of a new technique of taking photographs of non-moving objects like moulages.³¹ And Jacobi highlights the didactic principal:

As far as the selection of the pictures is concerned, I would like to emphasize that I have paid less attention to the peculiar and interesting cases that predominate in most collections than to typical clinical pictures; because this atlas is intended to be a reference book for the general practitioner and to facilitate the study of dermatology for the student.³²

³⁰ E. Jacobi, K. Zieler, *Atlas der Hautkrankheiten mit Einschluss der wichtigsten geschlechtlichen Erkrankungen*, 7th ed., Berlin–Wien 1920, p. III (foreword to 1st edition in 1903).

³¹ *Ibidem*.

³² “Was die Auswahl der Bilder betrifft, so möchte ich hervorheben, dass ich weniger auf die in den meisten Sammlungen vorherrschenden absonderlichen und interessanten Fälle, als auf typische Krankheitsbilder Gewicht gelegt habe; denn dieser Atlas soll dem praktischen Arzt ein Nachschlagebuch sein und dem Studierenden das Studium der Dermatologie erleichtern.“ (Emphasis in the text removed by the author) *Ibidem*, p. IV.

At this atlas the skin and venereal diseases had been organised “pathologic-anatomically” and should bring order to the diversity of phenomena. The atlas had been published in seven editions until 1920 with translations into Russian, English, Italian and Spanish.³³ Even the Jacobi-Atlas only shows moulages of the skin and mucous membrane, another atlas about venereal diseases from 1908 posthumously by Julius Engel-Reimers (1837–1906), formerly scholar in Hamburg, has photographs in black and white, secondary coloured photographs but in majority colour drawings collected from 1889.³⁴ The pictures are not only of the skin but also of other organs (see the liver in Fig. 6, 4th column) that refers to the discourse of the “pathological anatomy” as Engel-Reimers had been an assistant under Rudolf Virchow (1821–1902).³⁵ This choice might makes Wolters’ attitudes clear, that diseases like syphilis affect more organs you need to consider in clinical work, research and teaching. In contrast to this general view the last atlas from 1912 by Ferdinand Zinsser (1865–1952), scholar in Cologne, the pictures, in majority moulages in colour and some photographs in black and white, show only the mucous membrane of the mouth and only syphilis with similar diseases. This atlas might be seen as an extension of Jacobi’s approach to one localisation and one disease that marks the differentiation of the discipline dermatology and venereology. It had been published in three editions until 1922 and translated in French, English and Russian.³⁶

In 1914 Wolters died as a result of a long-standing illness. Walter Frieboes followed at his chair (directorship 1913/1914–1932). He was well acquainted with the clinic because he started his career as intern in Rostock in 1909 until he went for Bonn to habilitate.³⁷ Due to the library plate collection he gives a definition and its value in 1931:

Of pictures, which are to be attributed to the library in meaning, are only illustrations of diseases attached on cardboard present [plates – C.D.], corresponding to the value of the cut atlases, they have a value of 350 to 400 Reichsmark.³⁸

The specified value of 350 to 400 Reichsmark corresponds to the seven atlases listed in table two with around 50 Reichsmark each, what comes close to historical prices.³⁹ So we might have a sufficient overview of the used atlases even there is a time gap between

³³ B. Kuhlo, *Eduard Jacobi* [in:] *Neue Deutsche Biographie*, 1974, 10, pp. 235–236, <https://www.deutsche-biographie.de/pnd117603422.html#ndbcontent> [accessed: 26.01.2023].

³⁴ J. Engel-Reimers, *Die Geschlechtskrankheiten*, Hamburg 1908, p. IV.

³⁵ *Ibidem*, p. III.

³⁶ See [Without author] *Ferdinand Zinsser* [in:] *Rektorenportraits der Universität zu Köln*, 2021, https://rektorenportraits.uni-koeln.de/rektoren/ferdinand_zinsser/ [accessed: 21.01.2023].

³⁷ See chapter 6.4 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 169–170.

³⁸ “Von Bildern, die dem Sinne nach der Bücherei zuzurechnen sind, sind nur auf Karton gezogene Krankheitsabbildungen vorhanden, die entsprechend dem Wert der zerschnittenen Atlanten einen Wert von 350.- bis 400.-Rm ausmachen.” W. Frieboes, 6.06.1931, LHAS 1965, n. p.

³⁹ I could not investigate the origin prices for the atlases mentioned in table two, except the prices of the atlas of Frieboes from 1930 with 52 Reichsmark and his atlas from 1928 in 14 deliveries (later published in two bigger volumes) with costs of each delivery with 5 to 10 Reichsmark (all together 110 Reichsmark). See the reviews, “*Dermatologische Wochenschrift*” 1927, Vol. 85, pp. 1433, 1600; 1928, Vol. 86, pp. 42, 247, 408, 590, 714; 1928, Vol. 87, pp. 962, 1226, 1311 and 1930, Vol. 99, p. 424. Note: I haven’t researched delivery number eight.

the atlases of 1912 and 1924 (see again Tab. 2). The first documented plates under Frieboes start with Jacobi again! The impact of his atlas lasted until 1944 because Karl Zieler (1874–1945), scholar in Würzburg, went on publishing Jacobi’s atlas in further seven editions from 1924.⁴⁰ The first or second edition is also represented in the library plate collection and can be interpreted as an actualisation. Later Frieboes published his own atlases, which he also used as plates. He did the same as Jacobi: publishing moulages in colour out of the clinic collection. But Frieboes mixed them up with black and white photographs. While moulages demonstrate smaller parts of the body, the photographs do so with bigger parts or the whole body and person. So pictures contextualise pictures what can be seen as a method to teach skin and venereal diseases.⁴¹ In an earlier atlas published together with Hans Moral (1885–1933), scholar for dentistry in Rostock, from 1924 Frieboes used drawings, too. However, the review of this atlas indicates that drawings in particular lose their relevance:

The technique of colour photographic reproduction has already spoiled us so much that the photographic black-and-white picture and, even more so, black or coloured watercolour drawings seem almost old-fashioned to us.⁴²

Tab. 3. Amount of figures showing syphilis in atlases of Frieboes

Atlas	1924	1928	1930	1949
Syphilis/total number	61/453 = 13%	104/468 = 22%	17/68 = 25%	62/238 = 26%
Mouflage figure colour	39	48	17	–
Mouflage figure b/w	–	3	–	–
Photo colour	–	–	–	54
Photo black/white	8	52	–	8
Drawing colour	12	1	–	–
Drawing black/white	2	–	–	–

Source: own elaboration.

⁴⁰ Zieler edited Jacobi’s atlas by adding, substituting or removing illustrations. See chapter 5.2.1.1 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, p. 145. He subtitles his third atlas edition from 1934: “On the basis of prof. Jacobi’s Atlas of Skin Diseases.” In the 4th edition from 1937 he writes decidedly: “Using 210 unchanged pictures from Jacobi’s Atlas of Skin Diseases 5.–7. Edition (1913–1920).” Jacobi’s atlas included to the mentioned editions 266 pictures.

⁴¹ This finding I discuss with pictures, see C. Dahlke, *Die Syphilismoulagen...*, pp. 383–384.

⁴² E. Arning, [Review:] *Atlas der Mundkrankheiten, von Moral und Frieboes*, “Dermatologische Wochenschrift” 1924, Vol. 79, p. 1079.

And these technical but also aesthetic discourses appear empirically: in table three there are contrasted three different media (moulages, photographs and drawings) visualised in two prints (colour and black/white) published in four atlases of Frieboes (publication year) all showing the disease syphilis. Drawings had been eliminated as media,⁴³ while moulages continue at a high level but they also break up in the last atlas in 1949 as well as photographs in black and white. The dominating medium becomes the colour photograph. These findings show the technical development of colour photography of non-moving (drawings and moulages) and moving (humans) objects.⁴⁴ With respect to syphilis table three shows its distribution over the media. This finding is not special in comparison to other diseases shown in the atlases (not shown in Tab. 3) but what syphilis makes outstanding is its amount with around 20% (second line from the top in Tab. 3). Wolters already stated that syphilis had been the disease with “all his diverse phenomena,”⁴⁵ Frieboes also announces:

But the recognition and treatment of skin and venereal diseases is of the greatest importance for general practice and for the welfare of the people. The most devastating venereal disease, syphilis, occurs in infinitely different forms, and that is why recognising it is often particularly difficult [...].⁴⁶

He made this statement in 1918 to the government even with the purpose to transform his extraordinary professorship into an ordinary but in context to his lively list of publications you can interpret it as his motivation to catch syphilis and bring it into image even to organise the “infinitely different forms.”

With look at the plate collection of the third director Ernst Heinrich Brill (directorate: 1933–1945) nearly the whole plate collection consists of pictures out of the atlases of Jacobi respectively the further editions of Zieler until his 3rd (published 1934). This finding supports the already stated relevance of Jacobi’s and Zieler’s atlas in Germany on the example of Brill, who started his career in dermatology as intern in 1922 at the University of Jena, where he went on as senior doctor in 1926 and finished as extraordinary professor in 1930.⁴⁷

In Tab. 4 there are contrasted the whole plate collection of Brill to his plates with syphilis illustrations in different media. The similarity to the library plate collection in media, their distribution and the amount of syphilis pictures refers to a contemporaneous

⁴³ The one coloured drawing in 1928 is made of the pathogen spirochete pallidum under the microscope.

⁴⁴ It was photographed three times in different colours; the photos were added together to one print. It becomes clear that you could act like this only with non-moving objects and how successful moulages could be used.

⁴⁵ M. Wolters, Memorandum, LHAS 2309, sheet 48.

⁴⁶ “Gerade die Erkennung und Behandlung der Haut- und Geschlechtskrankheiten ist aber für die Allgemeinpraxis und für das Volkswohl von der allergrößten Bedeutung. Tritt doch grade die allerverheerendste Geschlechtskrankheit, die Syphilis, in unendlich verschiedenen Formen auf, und darum ist grade ihre Erkennung oft ganz besonders schwierig und es bedarf großer Übung und Erfahrung zur richtigen Diagnosenstellung.” W. Frieboes, 14.01.1918, LHAS 1490, n. p.

⁴⁷ See chapter 6.7 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 179–180.

historical context.⁴⁸ Although colour photographs of moulages displaced colour drawings this medium didn't vanished at all. They hold on in illustrating the microscopic studies of the pathogen spirochete pallidum coloured with different agents like Levaditi, Giemsa or Fontana as shown in Brill's plate collection (UHK 72 and 73).⁴⁹

Tab. 4. Amount and content of pictures in different media compared to syphilis in the plate collection of Brill

Medium	Plate collection	"Syphilis plates"
Mouflage colour	112 (all humans)	14 (12,5%)
Photo black/white	18 (13x humans, 4 microphotographs)	1 (dark field microphotograph of pathogen)
Drawing colour	7 (1 drawing of human)	6 (microscopic drawings of pathogen)
Drawing b/w	5 (4x models of spermatocytes)	1 (model of pathogen)
Medium not clear	2 (male genital)	–

Source: own elaboration.

The last chapter will deal the use of the plate collection together with moulages in the lecture hall at the university hospital. In 1909 Wolters could realise his purpose to teach with moulages. He started to build up a teaching collection with moulages bought from moulagists in Freiburg i.Br. and Berlin. He trained his employee Auguste Kaltschmidt (1873 – died after 1935) in Cologne by Zinsser, where she copied a stock of moulages, before she began to produce them in Rostock.⁵⁰ Frieboes writes about in 1914:

Since the not very varied material [patients – C.D.] often was not sufficient for lessons, he [Wolters – C.D.] let hold rarer clinical pictures, school cases and healing stages of the various affections in artistically perfect moulages. Almost 300 such moulages are available and enable clinically well-rounded lessons.⁵¹

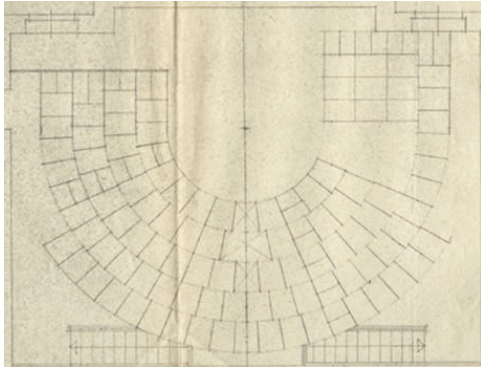
⁴⁸ See the amount of syphilis pictures again as highest compared to other diseases in the plate collection of Brill in table 15 (appendix) [in:] *ibidem*, p. XXXIV.

⁴⁹ The pictures of the pathogene Brill had taken out of the work: *Die Haut- und Geschlechtskrankheiten*, eds. L. Arzt, K. Zieler, Vol. 4, Berlin–Wien 1934, cardboard 1–3.

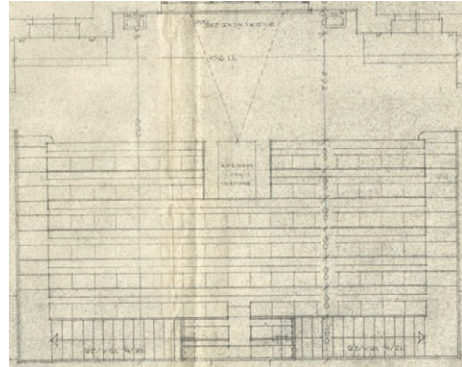
⁵⁰ See chapter 6.1 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 163–164.

⁵¹ "Da das nicht sehr abwechslungsreiche Material öfters zum Unterricht nicht ausreichte, hat er seltener Krankheitsbilder, Schulfälle und Abheilungsstadien der verschiedensten Affektionen in künstlerisch vollendeten Moulagen festhalten lassen. Fast 300 solcher Moulagen sind vorhanden und ermöglichen einen klinisch abgerundeten Unterricht." W. Frieboes, [obituary] *Max Wolters*, "Dermatologische Zeitschrift" 1914, Vol. 21, 1pp. 663–664.

Frieboes went on and in the following two decades Kaltschmidt produced a huge stock of moulages. With Kaltschmidt Frieboes realised his purpose of a continuous production of “gapless teaching material”: “moulages and scientific photographs, black and coloured slides, microscopic drawings and photomicrographs, etc.”⁵² To use this teaching material Frieboes had some problems in the lecture hall with around 90 seats in 1919/20 (Fig. 7, left column).



Lecture hall until destruction in WW II



New lecture hall in 1943 with epidiastope

Fig. 7. Ground plan of the lecture hall at the university hospital Rostock

Source: “Groß[er] Hörsaal,” without author and date, UAR [University Archive Rostock], Med. Fak. [Medical Faculty, stock], file: 359, n. p.; “Kollegsaal 1943,” without author and date, UAR [University Archive Rostock], Med. Fak. [Medical Faculty, stock], file: 359, n. p.

Frieboes wants to demonstrate a case but as he writes:

[...] the current lecture hall conditions, which are completely inadequate, [...], for dermatological patient demonstrations, half of the listeners can often see very little, unfortunately often nothing at all, of the skin affections.⁵³

In that document Frieboes applies for an “Universal apparatus” what he describes as an epidiastope, with which book pages, little objects, glass slides, histological preparations on glass carriers or even plates can get projected enlarged on the wall in front of the auditorium (see the epidiastope in the center of the ground plan in Fig. 7,

⁵² W. Frieboes, 26.10.1918, p. 2, LHAS 2320, n. p. In this letter Frieboes combats the purpose of the government to cancel an employee.

⁵³ *Vide* “[...] zumal bei den jetzigen, für dermatologische Krankendemonstrationen völlig unzureichenden, um nicht zu sagen unbrauchbaren Hörsaalverhältnissen wohl die Hälfte der Hörer von den Hautaffektionen oft recht wenig, leider oft auch garnichts erkennen kann.” W. Frieboes, 9.10.1919, LHAS 1968, n. p.

right column). Also Wolters bought a “Universal apparatus” in 1905/1906.⁵⁴ Despite you could never place a moulage under an epidiascope most likely because of the heat of the light which could melt the surface or bleach the colours. But Frieboes declares their special use in 1919:

In addition, since the moulage collection is constantly used for teaching dermatology, and when the students pass it around, the unappreciated moulages are unfortunately very often damaged or smashed [...].⁵⁵

In this document Frieboes applies for money to protect the moulages with glass cubes. These findings all together give strong hint that moulages were used for direct visitation like to visit a patient and plates for reaching all students in the hall. In this spatial environment syphilis could be performed as materialised image discursively. It might be hard for medical students to learn maybe to digest it, but they always are orientated by environments, performances and discourses. Even it was syphilis (but also tuberculosis) that brought other professions, namely school teachers, into that special place. There are courses like “Fighting sexual transmitted diseases through schools” organised by the Institute of Hygiene and held by the city school teacher at the moulage collection in 1923. And syphilis brought moulages into the public in various exhibitions at a lot of cities like in Rostock in 1920 organised by the DGBG and the Hygiene Museum in Dresden. Syphilis moulages out of the collection in Rostock had been used, too.⁵⁶ They arouses in different environments, performances and discourses different reactions. While the teachers mentioned above reacted with lively discussions,⁵⁷ the public should be deterred – with success – until this didactical principal got discussed controversially with the consequence to give the moulages the necessary pedagogical environment.⁵⁸

Part IV: Conclusions

In the 1st half of the 20th century syphilis had been visualised in media of drawings, photographs and moulages, illustrated in atlases in prints of black and white or colour. The pictures were cut out and fixed on cardboards (plates). The use of plates and moulages in Rostock over nearly 50 years made these instruments to an everyday part of teaching. During WW II these huge stocks had been decimated extremely but especially syphilis could be taught furthermore, because precisely this disease had been produced in large numbers. Syphilis was a manufactured disease whose materials had to be sorted out for

⁵⁴ See chapter 6.8 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 182–185.

⁵⁵ “Da außerdem die Moulagen-Sammlung dauernd zum Unterricht der Hautklinik gebraucht wird, und beim Herumgeben unter den Studenten leider sehr häufig Beschädigungen ja Zertrümmerungen der ungeschätzten Moulagen vorkommen, [...]” W. Frieboes, 7.12.1920, LHAS 2315, n. p.

⁵⁶ See chapter 6.8 [in:] C. Dahlke, *Die Rostocker Moulagensammlung...*, pp. 186–189.

⁵⁷ *Ibidem*, p. 186.

⁵⁸ See S. Mühlenberend, *Dresdner Moulagen. Eine Stilgeschichte* [in:] *Körper in Wachs. Moulagen in Forschung und Restaurierung*, eds. J. Lang, S. Mühlenberend, S. Roebiger, Dresden 2010, pp. 26–39.

teaching. Discourse analytically the conditions can be found in the discourses of pathological anatomy and visualised teaching which were with the beginning of the 20th century powerful enough to determine clinician's thinking and acting. But the production of syphilis like in Rostock got also catalysed by the institutionalisation of Dermatology and Syphilography (later Venereology), the technical development of photography as their reproduction in atlases, the in-house production of plates and moulages or the high interest in combating syphilis by public education. These and other conditions should be more analysed to get a differentiated view on the man-made syphilis. At least the post war increase of syphilis made it necessary to use what had survived. And this was little material but it was used as 'materialised images' in a rich syphilis discourse.

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