

# Samuel Niedenthal and the Legacy of Zoology in the Seventeenth Century

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## *Samuel Niedenthal and the Legacy of Zoology in the Seventeenth Century*

The aim of this study is to analyse the extensive collection of the zoological drawings by Samuel Niedenthal that has been preserved in Dresden. They were executed using various techniques and depict a variety of animal species. This article draws attention especially to studies of the local fauna. This legacy of Pomeranian zoology is unique and important given the destruction of the painter's artistic oeuvre, but also because it illustrates development of science in his time. Niedenthal's depictions of animals, birds and insects are the first such complete compendium created in in seventeenth-century Central Europe. The detailed and accurate pictures make it possible to identify species occurring in the area, representing the first records of them in Pomerania.

Keywords: Samuel Niedenthal, drawings collection, early modern zoology, animals, insects

Born most likely in Erfurt, Samuel Niedenthal has until recently remained an obscure individual.<sup>1</sup> In the very scarce and modest accounts of his life, one piece of information is

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<sup>1</sup> CUNY Georg. Samuel Niedenthal, In: THIEME Ulrich, BECKER Felix (Hg.). *Allgemeines Lexikon der bildenden Künstler: von der Antike bis zur Gegenwart Berlin*. Leipzig: Verlag von E. A. Seemann, 1931, Bd. 25, p. 460. DROST Willi. *Danziger Malerei. Vom Mittelalter bis zu Ende des Barocks*. Berlin, Leipzig, Verlag für Kunstwissenschaft, 1938, p. 141; SCHWARZ [F?]. Samuel Niedenthal. In: KROLMANN Christian (Hg.). *Altpreußische Biographie*. Königsberg, Marburg a/Lahn: Historischen Kommission für ost- und westpreussische Landesforschung, Bd. 2, L. 2, 1943 p. 468, PAŁUBICKI Janusz. *Malarza Gdańscy. Malarze, szkolarze, rysownicy i rytownicy w okresie nowożytnym w gdańskich materiałach archiwalnych*. [Danzig Painters], Vol. 2, Gdańsk: Muzeum Narodowe, 2009, pp. 559–563.

repeated: that he was a painter of animals and a portraitist active in Danzig (now Gdańsk).<sup>2</sup> So far, two of his assumed animalistic–narrative paintings have been reproduced.<sup>3</sup> Some single prints he designed are known.<sup>4</sup> Apart from two texts from the nineteenth and early twentieth century, his drawing activity remains almost entirely obscure. An extremely rich set of the artist's works, previously unknown to a broader public, has been preserved at the Dresden Kupferstich–Kabinett, and it is the main focus of the analysis in the present paper.<sup>5</sup> Another significant set, previously in the Library of the University of Erlangen–Nürnberg, disappeared under unclear circumstances in the second half of the twentieth century. But the inventory of this “paper museum” still exists as part of the eighteenth century Museum Kleinanium.<sup>6</sup>

In the early twenty-first century, Brazilian researchers analysing his drawings of South American fauna drew attention to Niedenthal's works in Kupferstich-Kabinett in Dresden.<sup>7</sup> Four years later, part of the artist's oeuvre was published by Jacek Tylicki.<sup>8</sup> Thanks to the knowledge of the drawings preserved in Dresden, it was possible to attribute to Niedenthal a painting today known only from a pre-WW II photograph.<sup>9</sup> In 2021, in a book on depicting nature in early modern Gdańsk, 28 of Niedenthal's illustrations were published.<sup>10</sup>

## Niedenthal's biography

It remains unknown where the information on Niedenthal's birthplace and date come from. It used to be assumed that he arrived in Danzig ca 1635. It is, however, also likely that he came to the city slightly earlier. If we were to assume that he was born in 1620, he may have arrived in Danzig together with his family, although he could also have been born few years before that date. Having come to the city, Niedenthal became a disciple of Jacob Liskornet. There were

<sup>2</sup> HIRSCHING Friedrich Carl Gottlob. *Nachrichten von sehenswürdigen Gemälde...*, Erlangen: Palm, 1787, Bd. 2, p. 125. In Johann Karol Schultz's etching showing the interior of the Kämmererei, there is a painting visible showing a large water creature. SCHULTZ Johann Carl. *Danzig und seine Bauwerke*, II, 16. <https://polona.pl/item-view/da4efa8b-e945-4b56-b68e-fb0ee1e3fe94?page=123> [accessed: 21.01.24].

<sup>3</sup> ‘Orpheus’ DROST, *Danziger...*, Tafel. 78 and ‘Animals Going to Noah's Ark’: [https://research.rkd.nl/nl/zoeken?q=niedenthal&size=n\\_20\\_n&filters%5B0%5D%5Bfield%5D=db&filters%5B0%5D%5Bvalues%5D%5B0%5D=rkdimages&filters%5B0%5D%5Btype%5D=all](https://research.rkd.nl/nl/zoeken?q=niedenthal&size=n_20_n&filters%5B0%5D%5Bfield%5D=db&filters%5B0%5D%5Bvalues%5D%5B0%5D=rkdimages&filters%5B0%5D%5Btype%5D=all) [accessed: 21.01.24].

<sup>4</sup> The portrait of the young Sybilla Schwarz from Danzig must have been created before 1638. <https://www.rijksmuseum.nl/en/search/objects?q=niedenthal&p=1&ps=12&st=Objects&ii=0#/RP-P-1914-3727,0> [accessed: 21.01.24].

<sup>5</sup> We would like to thank Dr Stephanie Buck, Director of the Kupferstich-Kabinett, for the opportunity to publish drawings from the collection of the Statliche Kunstsammlungen in Dresden.

<sup>6</sup> The inventory called *Musei Kleiniani Pars I–X* exists in Friedrich-Alexander-Universität Erlangen–Nürnberg (FAU), UER MS 2680 <http://digital.bib-bvb.de/collections/FAU/#/documents/DTL-1417> [accessed: 21.01.24]. Regarding this manuscript pars I and VII see: SOBECKA ANNA. Początki naukowych badań nad bursztynem w Gdańsku i kolekcja Jacoba Theodora Kleina (1685–1759) [The Beginnings of Scientific Research into Amber and the Collection of Jacob Theodor Klein (1685–1759)]. In: *Artium Quaestiones* 34, 2023, pp. 13–46 <https://doi.org/10.14746/aq.2023.34.1>

<sup>7</sup> TEIXEIRA Dante Martines. *Coleção Niedenthal: animais et insectes*. (Brasil Holandês, ed. FERRÃO Cristina, SOARES Jose Paulo Monteiro). Petrópolis: Ed Index 2000, passim.

<sup>8</sup> TYLICKI Jacek. *Rysunek gdański ostatniej ćwierci XVI i I połowy XVII wieku* [Danzig Drawing of the Last Quarter of the 16<sup>th</sup> Century and the First Half of the 17<sup>th</sup> Century], Toruń: Uniwersytet Mikołaja Kopernika, 2005, pp. 216–236.

<sup>9</sup> “Adam Giving Names to the Animals” SOBECKA Anna. Carl Borromäus Ruthart and Gdańsk Art. In: *Nature and Spirituality*. Carl Borromäus Ruthart (163–1703), Gdańsk: National Museum, 2019, pp. 21–24.

<sup>10</sup> SOBECKA Anna. *Obrazowanie natury w nowożytnym Gdańsku. O kulturze kolekcjonerskiej miasta*. Gdańsk: słowo/obraz terytoria, 2021, s. 117–138.

two painters bearing the same first and family names. The elder is said to have been a painter of history, and representations of figures such as the Five Senses. The younger was known for his history and landscapes.<sup>11</sup> Willi Drost provides information that the younger of the Liskornets painted the Town Hall ceiling with ornamental and fruit motifs.<sup>12</sup> Having obtained a good certificate from his master, in 1637, Niedenthal made attempts to gain some financial support from the Danzig City Council in order to make an artistic trip. However, his application was to no avail.<sup>13</sup> He made the trip despite failing to obtain financing; we know for sure that he visited Holland and possibly several German cities. In 1643, he was recorded in the book of the Painters' Guild in Danzig. A year later, Niedenthal married Maria née Deterss, the daughter of a sculptor and woodcarver. The couple had four children christened subsequently, in 1648, 1652, 1656 and 1663. In the mid-seventeenth century, Niedenthal was the head of the Guild and accepted masterpieces of several journeymen: Davitt Kluge, Peter Warburg, Andreas Stech and Christian Horn. Having joined the Guild as a portraitist, he most likely made his living by painting burghers' portraits and emblematic paintings, which is confirmed in the sources.<sup>14</sup> However, it was animals that were his passion. He may have conducted field research and bred some species. Most frequently it is assumed that Niedenthal died before 1666, when his widow married the painter Christian Horn. Still, some researchers only give 1682 as the artist's death date.<sup>15</sup> Preserved and dated works suggest that his artistic and scientific activity spans the period 1633–1665.

### The legacy of Danzig zoology at the Kupferstich–Kabinett in Dresden

Constituting a precious historical source, Niedenthal's drawings preserved in Dresden are an exceptional example of the forgotten legacy of zoology. The volumes bearing catalogue numbers Ca 211, 215 and 224 cover, respectively, the world of animals, birds and insects and contain over 650 drawings,<sup>16</sup> of which the vast majority should be associated with Niedenthal. Pasted into three folio format books, they were executed using various techniques (graphite stick, chalk, crayons, ink, watercolour, gouache, oil) on different paper types. It is impossible to analyse the bases of respective drawings, since they were pasted onto the sheets of the volumes. Some single drawings were cut out of the books, and bear separate catalogue numbers. As far as we know, the drawings have never been shown to the general public. Only five of Niedenthal's works are accessible on the Staatliche Kunstsammlungen Dresden website.<sup>17</sup>

Niedenthal's works from Dresden are of a varied character. They include some documentary drawings executed, most likely, in the field with information on sizes and colours; there are also studies of poses or compositions, as well as autonomous works. Some may have formed part of scientific cycles, others were meant to be displayed in collectors' *studioli*.

<sup>11</sup> CUNY Georg. Jacob Liskornet. In: THIEME, BECKER, Allgemeines Lexikon..., Bd. 23, 1929, p. 282.

<sup>12</sup> DROST, Danziger Malerei..., p. 147.

<sup>13</sup> State Archive in Gdańsk – Archiwum Państwowe w Gdańsku – APGd., 300, C/ 613, pp. 17, 27.

<sup>14</sup> APGd., 300, 12/84, p. 182, APGd., 300, 12/87, p. 146, APGd., 300, 12/88, p. 27.

<sup>15</sup> CUNY, Samuel..., p. 460, JAŚNIEWICZ Aleksandra. *Portret w Gdańsku. Od schyłku średniowiecza do późnego baroku (1420–1700)* [Portrait in Danzig. From the Close Middle Ages to Late Baroque (1420–1700)], Gdańsk: National Museum 2018, p. 455.

<sup>16</sup> Ca 211 contains 242 drawings; Ca 215 contains 366 and Ca 224 only 56. Of these 664 drawings, six have to be deducted, as they were cut out from volume Ca 211: 76, 77, 80, 81, 82, 95. Three presentations kept separately and bearing catalogue numbers C 1978-313, C 1978-314 (earlier possibly as 76 and 77) and C 1982-106 have to be added.

<sup>17</sup> <https://skd-online-collection.skd.museum/Home/Index?page=1&q=niedenthal> [accessed 21.01.24]

Divided into three thematic groups, the discussed drawings constitute a compendium of zoology knowledge from the mid-seventeenth century of a unique character, both in terms of quantity and quality. What remains an open question is when and who grouped them in this particular manner.



Fig. 1: Samuel Niedenthal, *Deers - does*, SKD Ca 211: 19.

Thanks to the source ‘Quodlibet’, a manuscript by Georg Schröder, it is known that this happened in the 1660s at the latest,<sup>18</sup> since on the first sheet, written most likely in 1665, the author records three books worthy in his opinion of the greatest attention:

“1. Von den Nitenthal ist ein Thierbuch gamalt drin vom Elephante alle Thier gemahlet sind bis an die Raptilia alß da seiend Corcodil Armodil  
2. Das Vogelbuch fänget vom Adler an und geht bis an Nasselkönig  
3. Das Insectenbuch fänget an von den schlangen scorpionen, raupen, Wespen, Käffern und geht bis auf die Fliegen.”

[1. From Nitenthal is an animal book painted in it from the elephant all animals are described up to the reptiles as there are crocodiles armadillo  
2. The bird book begins from the eagle and goes to the [bird not identified]<sup>19</sup>  
3. The insect book starts from snakes, scorpions, caterpillars, wasps, beetles and goes to flies.]

Thus, it is clear that the volumes were already considered complete, and that the drawings were regarded as Niedenthal’s works. The volumes include various studies executed in Danzig

<sup>18</sup> Georgii Schröders Dantiscani in Patria Consulis Anno 1703 fato funci Quodlibet oder Tage Buch von Allerhand Anmerkungen, PAN Bibl. Gd. Ms 673, s. 3 a [In German].

<sup>19</sup> Fide TYLICKI, Rysunek gdański... p. 224. These birds were identified by Teixeira, The “Thierbuch” as representatives of the hummingbirds (Trochilidae): the ruby-topaz hummingbird (*Chrysolampis mosquitus*) and the Antillean crested hummingbird (*Orthorhynchus cristatus*).



Fig. 2: Samuel Niedenthal, *Two headed lamb (Ovis aries)*, SKD Ca 211: 87.



Fig. 3: Samuel Niedenthal, *Wildcats (Felis sylvestris)*, SKD Ca 211: 111.

(written as Danzig) and its vicinity (Jäschkentaler Weg, Neu Schottland, Zoppot, Hela). A different character can be found in the copies of exotic fauna made by Niedenthal after works by other artists which he must have seen in Amsterdam, Berlin or Cologne;<sup>20</sup> these, however, shall not be further discussed in the present paper.<sup>21</sup>

The order of the works in respective volumes could suggest this was not decided settled upon by the author. However, it cannot be denied that this order has a certain consistency in terms of animal classification. A different judge-

<sup>20</sup> M. in *West Indianische Pferd...*, *Meerschwein...* *indiani canin*, *Wolffs* ... S.N Amsterdam Ao 1643, *Tamandua Babea* ... *Bibliodec*. Kunst Kammer in Berlin oder Cöln zu sehn, *Schal Igel*... SN f [emphasis by AS]. TEIXEIRA. Coleção Niedenthal, II. 49, 91, 154, 180, 185.

<sup>21</sup> TEIXEIRA, Coleção Niedenthal, *passim*.



**Fig. 4:** Samuel Niedenthal, *Scorpaeniform fish*, SKD Ca 211: 228, 229



**Fig. 5:** Samuel Niedenthal, *The ringed seal (*Pusa hispida*)*, SKD Ca 211: 237



**Fig. 6:** Samuel Niedenthal, *Two white-tailed eagles (*Haliaeetus albicilla*)*, SKD Ca 215: 8

dae) (Fig. 8), as well as ducks, geese, and swans (Anatidae) (Fig. 9). It ends with presentations of birds from ‘West India’, namely, specimens from the Caribbean and Central and South America.

Niedenthal’s Dresden zoological collection is completed with the volume on insects. Bearing the catalogue number Ca 224, it contains merely 56 images, mainly showing caterpillars of butterflies and moths (Fig. 10) and images of adult butterflies (Fig. 11), as well as beetles (Coleoptera) (Fig. 12). A substantial number of them contain inscriptions.

ment should be formulated concerning artistic questions and the character, as well as quality, of respective works. Let us begin with the Animal Book, Ca 211, containing 242 drawings. It begins with the presentation of mammals: red deer (Fig. 1) and horses, elephants, goats, sheep (Fig. 2), dogs, lions, cats (Fig. 3), giraffes, and so on. It ends with amphibians, fish (Fig. 4), seals (Fig. 5), crustaceans, and mollusc shells. On individual sheets of the book, a mixture of the following can be found (between 2 and 5 on a page): scientific drawings featuring extensive captions, anatomic studies, preparatory sketches for paintings, and independent miniatures painted on paper.

An analogical organising principle was used in the volume presenting birds (Ca 215), which contains 366 works. As already specified by Schröder, it begins with the presentation of native eagles (Fig. 6), then pheasants, peafowls and relatives (Phasianidae) (Fig. 7), woodpeckers (Picidae) and Old World orioles (Orioli-



**Fig. 7:** Samuel Niedenthal, *Two partridges on the table*, SKD Ca 215: 118



**Fig. 8:** Samuel Niedenthal, *Flying Great spotted woodpecker (Dendrocopos major), Eurasian golden oriole (Oriolus oriolus) and short-toed treecreeper (Certhia brachydactyla)*, SKD Ca 215: 210, 211, 212

Some of Niedenthal's presentations are cut along the specimen's contour, even those with widespread wings (Ca 215, dwg 6), so it is difficult to judge what types of inscriptions they might have featured before. An assumption can be made that the original drawings constituted several series, and they may have been executed for various recipients. The majority of Niedenthal's inscriptions are in German, though some drawings also feature captions in Latin. The inspiration for these may have been found in the works by Frans Post (1612–1680) and other artists from the period of documentation of the fauna and flora of Dutch Brazil under the rule of Johan Maurits of Nassau (1604–1679).<sup>22</sup> When copying specimens of Brazilian fauna, Niedenthal also copied the inscriptions. Examples of this include his images of the anteater (*Tamandua*)<sup>23</sup> or the tatupeba (six-banded armadillo, *Euphractus*) whose names Niedenthal translated into German.<sup>24</sup>

## The Animal Book

When analysing Niedenthal's legacy preserved in Dresden, we should, following Schröder, begin with the Animal Book 'Thierbuch'. There, we can find specimens from both Americas, already discussed by Brazilian researchers,<sup>25</sup> but also fantastical creatures such as griffin and unicorn, as well as a number of fauna specimens from Pomerania. The drawings are pasted onto blue pages, between two and four per page. Niedenthal executed works using various techniques and serving different purposes. He treated drawings both as zoological illustrations, helpful in the classification of the animal world, and preliminary sketches or collectors' drawings.

<sup>22</sup> BRUYN DE Alexander. *Frans Post. Animals in Brazil*. Amsterdam: Rijksmuseum, 2016.

<sup>23</sup> *Ibidem*, p. 62; Two species are known: Southern tamandua *Tamandua tetradactyla* and Northern tamandua *Tamandua mexicana*.

<sup>24</sup> TEIXEIRA, Coleção Niedenthal, figs. 185, 186.

<sup>25</sup> *Ibidem*, passim.

The volume contains particularly numerous presentations of the Cervidae. Those of fallow deer, have already been reproduced in literature.<sup>26</sup> Niedenthal sketched definite poses of respective specimens, specifying, for example, the location in which the drawing was executed (e.g., Danzig (Fig. 1, dwg 19). Others feature a monogram and the date ‘SN, 1656’ (dwg 20). Based on similarities, the next ones can be confidently attributed to him – not only for the similarity of the animals’ poses, but also technical similarities (dwg 21).

Similarly to the majority of authors of zoological drawings, Niedenthal was also interested in Nature’s anomalies. This might explain his drawing of the two-headed lamb (Fig. 2; dwg 87). He also sketched deformed antlers or skulls. These images are often devoid of inscriptions. It is therefore difficult to ascertain the chronology of the creation of these works. It seems likely that the artist developed his own interests in parallel.

The earliest-dated drawing in the *Animal Book* is the presentation of a wild cat *Felis silvestris* (Fig. 3). Shown in a dynamic pose, this creeping wild animal is captioned ‘Wildkatze’, and monogrammed ‘SN’, with the accompanying date ‘Ao 1633’ (dwg 111).

This same sheet shows an image of a different character representing a Eurasian lynx<sup>27</sup> (*Lynx lynx*) captioned with the species name, with decorative letters in Latin (dwg 112). The animal is rendered in a static pose, executed with a precise line, using gouache applied with a thin brush. The last of the felines on this page is presented as striding in profile (dwg 113), while the only inscription, ‘21’, is possibly secondary.

The same volume also contains the image of a fish, most probably of the order Scorpaeniformes<sup>28</sup> (which covers sculpins, cottids and scorpionfish) (Fig. 4; dwg 229). In this case we are dealing with a drawing of intense colours executed on paper that has been primed dark-brown. On the same sheet is another similar presentation differing only in minor details (dwg 228), but much more monochromatic. This may mean that either the artist was dissatisfied with the first version and therefore made the second one, or that Niedenthal’s work was copied by his disciple.

Similar works as far as technique is concerned include the depictions of crayfish and crabs, in oil on primed paper. The Dresden volume does not contain preparatory drawings with inscriptions that could extend our knowledge of Niedenthal’s interest in these species. In the collection of the Forschungsbibliothek in Gotha, in one of the volumes forming the legacy of the Danzig Breyne family<sup>29</sup> can be found Chart A. 783. It includes a list of six Niedenthal’s sketches showing crabs which the artist made on the Zoppot beaches between 30 October 1653 and 17 June the following year. The note confirms that he also executed such presentations,

<sup>26</sup> SOBECKA, Carl Borromäus..., pp. 24–25.

<sup>27</sup> The drawing is labelled as presenting lynx; this is also confirmed by the presence of black tufts of hair on its ears, which are characteristic of the species. However, the tail is improperly presented as long and thin – lynx have short ‘bobbed’ tails with a black tip.

<sup>28</sup> Scorpaeniformes is a diverse order of ray-finned fish, with over 1320 species known. The division of Scorpaeniformes into families is not settled; accounts range from 26 to 38 families (VAN DER LAAN Richard, ESCHMEYER William N. & FRICKE Ronald. Family-group names of Recent fishes. In: *Zootaxa* 3882 (2), 2014, pp. 001–230, doi:10.11646/zootaxa.3882.1.1. This classification is not settled, however, and some authorities classify these groupings largely within the order Perciformes (VAN DER LAAN Richard, FRICKE Ronald & ESCHMEYER William N.) *Eschmeyer’s Catalog of Fishes Classification*, 2022. Available at: <https://www.calacademy.org/scientists/catalog-of-fishes-classification/>

<sup>29</sup> SOBECKA Anna. Drawings by the Breyne sisters as an unknown part of the eighteenth-century collection of a Gdansk family of scholars. In: *Collections. Development, History, Lost Heritage*. Gdańsk: National Museum, 2020, pp. 259–273.



and that if they were in the possession of the Breyne family, Niedenthal may have made them for the known botanist Jacob Breyne (1635–1697) for whom he also made drawings of plants. The detailed quality of Niedenthal's explanations can be seen in another drawing preserved in the Forschungsbibliothek in Gotha showing a salmon. Although using gouache, the work is not of a painterly character but bears exceptionally precise inscriptions. The drawing of the salmon resembles a scientific illustration, providing precise dimensions and the place where the spawning male was caught (Danzig, 14 January 1661).

One of the latest dated drawings in the volume dedicated to animals is the presentation of the ringed seal (*Pusa hispida*)<sup>30</sup> (Fig. 5) captured on the Hela Peninsula on 2 January 1665. The sketch made by Niedenthal (signed 'S.N. fec.') with soft sticks precisely renders the colouring of this sea mammal. Thanks to the artist's inscription, we can also learn about the dimensions of the caught specimen. It seems that this could be the oldest official record of the species known so far. The ringed seal is a relatively small seal, rarely greater than 1.5 m in length. Its coat is dark with silver rings on the back and sides with a silver belly (precisely rendered by Niedenthal), hence its common name. The ringed seal is the smallest and most abundant member of the seal family, with a small head, a short cat-like snout, and a plump body. They live in the Arctic and Sub-Arctic regions and can be found in the Baltic Sea, the Bering Sea and Hudson Bay. Interestingly, today on the Hela Peninsula is a *Sealarium* – Marine Station of the University of Gdańsk conducting research into this species.

## The Bird Book

Niedenthal also executed a number of excellent studies of various bird species, applying for the purpose all the techniques he had at his disposal. The folio book presenting them in the Dresden cabinet is titled 'Osieux'. As mentioned above, ornithology was of particular interest to the artist.

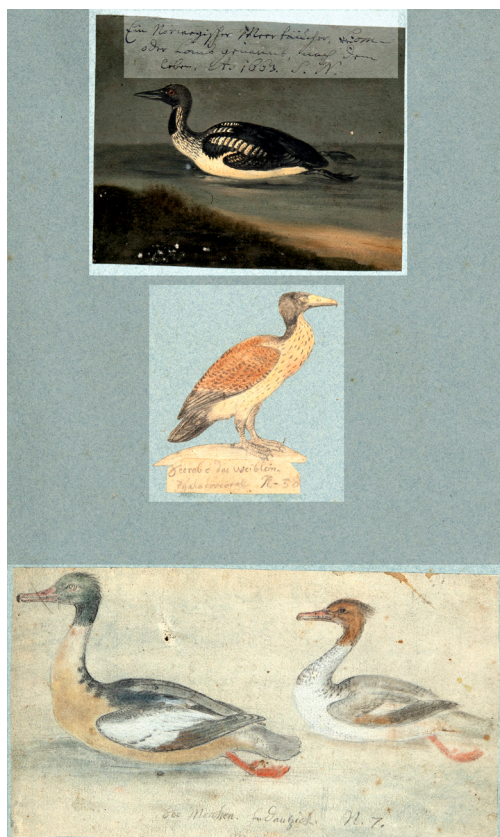
The Ca 215 volume opens with presentations of eagles and falcons shown in highly varied techniques (multicoloured sticks, gouache, watercolour, oil). Of particular interest are the sketches of eagles made *alla prima* by the artist in Neu Schottland (Ca 215 dwgs 7 and 8). Of two excellent drawings each showing a pair of white-tailed eagles (*Haliaeetus albicilla*),<sup>31</sup> the first, which is signed, was published by Tylicki.<sup>32</sup> Equally interesting as far as drawing technique is concerned is the sketch showing fighting eagles (Fig. 6).<sup>33</sup> Niedenthal presents here a very dynamic scene. One of the birds with outstretched wings clearly dominates the other, lying on the right. The dates of these sketches were precisely rendered using a graphite stick on both drawings. The observation of the eagles took place on 22 February 1658. The works bear the following numbers N.2 and N.15 marking their order, which shows that there were more

<sup>30</sup> TYLICKI, Rysunek gdański..., p. 224, [X s 46] wrongly ascribed this picture as presenting harbour seal (*Phoca vitulina*), but presented colouration.

<sup>31</sup> Prior to the Linnaean revolution, the white-tailed eagle functioned in scientific nomenclature under the names 'Pygargus', 'Albicilla' and 'Hinnularia'. JOBLING James A. *The Helm dictionary of scientific bird names from Aalge to Zusii*. Christopher Helm, A&C Black Publishers Ltd, London 2010 – this name 'Adler Pygargi' was included in the description. Identification of this species is also evidenced by the unfeathered leg's tarsometatarsi.

<sup>32</sup> TYLICKI, Rysunek gdański..., p. 90

<sup>33</sup> White-tailed eagles are territorial birds, but territorialism is not strongly marked – only a small area close to the nest (nest territory) is strictly defended. These birds do not show much aggression towards individuals of their own species, especially juveniles, intrusion into the territory of a strange male in adult robe provokes the territory owner to fight. MIZERA Tadeusz. Bielik. *Monografie Przyrodnicze* 4. Wydawnictwo Lubuskiego Klubu Przyrodników, Świebodzin 1999, pp. 1–195.



**Fig. 9:** Samuel Niedenthal, top: black-throated loon (*Gavia arctica*) ... 1663; middle 'Phalacrocorax' female - cormorant; bottom goosander (*Mergus merganser*), left, female right. SKD Ca 215: 265, 266, 267

sketches of this type. The artist may have executed some for a commission by certain scientists, while others stemmed from his obvious need to study birds' feathers and poses. It can be supposed that Niedenthal later used the eagles' different poses in paintings on canvas, so they played the role of preparatory sketches.

Meanwhile, there is an independent collector's miniature showing two killed partridge cocks (*Perdix perdix*) (Fig. 7; dwg 118). Both compositionally and thematically, the author refers to the Dutch painter Elias Vonck's still-lives. Showing dead birds was characteristic of Vonck's style, and he is known to have been active in Pomerania in the 1630s. Daniel Schultz, who specialised in animal painting, may have been his disciple.<sup>34</sup> It is hard to regard it a coincidence that two Danzig artists, Schultz and Niedenthal, begin to paint works similar to Vonck's compositions, particularly bearing in mind the fact that compositions of that type were extremely rare. This confirms the hypothesis that Vonck was active in Danzig for some time.

Niedenthal sketched birds not only at rest but also flying. This is clearly exemplified in the presentation of a great spotted woodpecker (*Dendrocopos major*) flying upwards (Fig. 8, top), executed in gouache and cut to the shape of the specimen with outstretched wings (dwg 210). The

same sheet also features an excellent 'portrait' of a Eurasian golden oriole (*Oriolus oriolus*) with beautiful feathers, probably male (Fig. 8, middle 'Oriola – Pica spec., Kirholt (?)') and below a coloured sketch of a short-toed treecreeper (*Certhia brachydactyla*) (Fig. 8 bottom) with an illegible caption 'Baum Kletter'.

In Ca 215, a substantial group of representations of water birds. From the inscriptions on these pictures we can discover where the author made his observations (for example, dwg 193 was made close to Lake Zaspas, which was filled in in the twentieth century). In one of the drawings (Fig. 9), which the artist recorded sketching 'In Dantzick', he presents various water birds: a black-throated loon (*Gavia arctica*) '1663'; in the middle a female cormorant (*Phalacrocorax*)<sup>35</sup>; at the bottom a pair of goosanders (*Mergus merganser*) with the male to the left and female to the right (dwg 267).

<sup>34</sup> SOBECKA, *Obrazowanie natury...*, pp. 91–117.

<sup>35</sup> This drawing presents a bird noted as female, but it looks like it was an immature specimen (HUME Rob, STILL Robert, SWASH Andrew, HARROP Hugh. *Europe's Birds. An identification guide* Princeton University Press. Princeton 2021; SVENSSON Lars, MULLARNEY Killian, ZETTERSTRÖM Dan. *Collins bird guide. The Most Complete Guide to the Birds of Britain and Europe*. Harper Collins Publishers Ltd., London 2022).

In the book of birds, apart from the native birds living in Eurasia, which dominate the pages in terms of number, Niedenthal also portrayed exotic birds, including numerous parrots (Psittaciformes). Let us draw attention to the drawings of a puffbird (after Frans Post)<sup>36</sup> and woodpeckers, defined by Niedenthal as ‘Westindische Blumen Specht’, which the artist drew ‘from nature thanks to the kindness of the abovementioned Jacob Breyne’ in 1665.<sup>37</sup> Once again the inscription confirms Niedenthal’s close relationship with the amateur scientist.

The Bird Book contains numerous presentations executed in oil and gouache on paper, most often primed brown, completed with captions in decorative handwriting: Ca 215, dwgs 56, 76, 129, 149, 151, 180, 181, 205, 211, 233 and 244. Some bear ordinals (Ca 215, dwgs 24, 25, 26, 164, 263); others feature the species and a number (Ca 215, dwgs 150 or 345). Others still feature the name and catalogue number or the catalogue number and a number, however, they do not coincide with the order given within the book. This great variety of means of elaborating respective specimens may suggest that Niedenthal was working on various cycles at roughly the same time.

The Bird Book also contains drawings executed and signed by other artists and amateurs. Two works which significantly differ in style are slightly earlier than Niedenthal’s drawings: one of them is by an unknown draughtsman (Ca 215, dwg 71) monogrammed CH on the ligature and dated 1633, while the other (dwg 204), although not signed, seem likely to have been executed by the same artist. Other drawings pasted into this book were authored by Maria Gouteris, who signed one work (Ca 215, dwg 130) and another is attributed to her (Ca 215, dwg 60); Christopher Gottwald, a doctor and amateur draughtsman (1636–1700) who monogrammed three bird presentations (Ca 215, dwgs 72, 319 and 329); and P. Wouwerman, whose signature is featured on a sketch (Ca 215, dwg 42). Moreover, there are other works (Ca 215, dwgs 46, 50, 51) which, owing to their different character – mainly their intense and bright colour range – do not seem to be Niedenthal’s works.

Niedenthal may have owned the works by the ‘CH’ monogrammer and Maria Gouteris among those he amassed in own collection in order to copy images of unavailable species. Whoever purchased the collection of Niedenthal’s drawings may have automatically become the owner of these. On the other hand, they may have been property of the scholarly collector.

As far as Gottwald is concerned, it is known that this extraordinary collector, who owned a unique collection of shells, also tried to draw and make etchings.<sup>38</sup> Most likely, Niedenthal was the teacher of that great enthusiast of science and art. If Gottwald was taught drawing by Niedenthal, he may have purchased a part of his teacher’s works after his death. In Gottwald’s plate H of *Theatrum Anatomicum*, among his surgical instruments we can also find brushes and painting pigments.<sup>39</sup> Thus, it is possible that he also bought Niedenthal’s drawings. If we this hypothesis is correct, it may have been Gottwald who arranged all the works kept in Dresden according to his own criteria. The owner of the discussed volumes must have been visited by Georg Schröder, or otherwise the latter would not have mentioned them on the first page of his ‘Quodlibet’.<sup>40</sup>

<sup>36</sup> BRUYN, Frans Post..., p. 39

<sup>37</sup> TYLICKI, Rysunek gdański..., kat. [X s 45].

<sup>38</sup> SOBECKA, Obrazowanie natury..., pp. 252–268.

<sup>39</sup> <https://pbc.gda.pl/dlibra/publication/416/edition/2467/content> [accessed 12.02.23]

<sup>40</sup> See note 17.



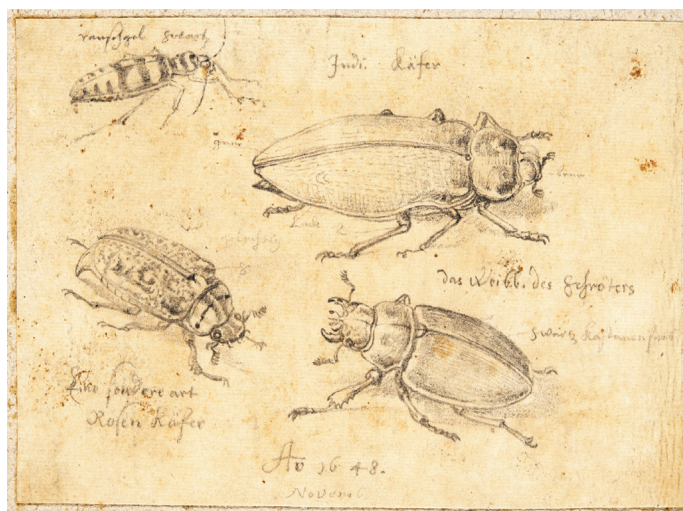
**Fig. 10:** Samuel Niedenthal, top: eruciform larva of sawfly (Hymenoptera, Symphyta); middle: caterpillar of the pale tussock (*Calliteara pudibunda*; Lepidoptera: Erebiidae); bottom: caterpillar of owllet moth Noctuidae (*Acrionicta rumicis* or *Panthea coenobita*). SKD Ca 224: 7



**Fig. 11:** Samuel Niedenthal, Butterflies and others, SKD Ca 224: 18. From top left: the lime hawk-moth *Mimas tiliae* (family Sphingidae), the poplar admiral *Limenitis populi* (wings bottom coloration) (family Nymphalidae), Camberwell beauty *Nymphalis antiopa* (Nymphalidae), European peacock *Aglais io* (Nymphalidae); middle row: the poplar hawk-moth *Laothoe populi* (Sphingidae), the poplar admiral *Limenitis populi* (Nymphalidae); bottom: the goat moth *Cossus cossus* (family Cossidae); middle: European garden spider *Araneus diadematus* (Araneae: Araneidae); and below left female of the common hawker *Aeshna juncea* (Odonata: Aeshnidae), and two beetles in the bottom: the musk beetle *Aromia moschata* (Coleoptera: Cerambycidae) and the red-brown longhorn beetle *Stictolepura rubra* (Coleoptera: Cerambycidae).

## The Insect Book

Niedenthal is also the author of a number of drawings of insects, both local and exotic. Placed in the Dresden volume Ca 224, they are less numerous than his presentations of animals or birds. Nonetheless, the sketches demonstrate Niedenthal's passion for entomological studies. However, a smaller range of dates recorded on the drawings from this album may point to the fact that entomology interested Niedenthal over a shorter period of time, namely in the late 1640s and the first half of the 1650s. To illustrate this interest, let us recall the presentations of a sawfly (Hymenoptera: Symphyta) eruciform larva and butterflies caterpillars (Fig. 10) dated 1654 (Ca 224, dwgs 7, 8). Niedenthal seems particularly fascinated by insect metamorphosis. One of his drawings (Fig. 11) shows several species of butterflies: from top left – lime hawk-moth *Mimas tiliae* (family Sphingidae), poplar admiral *Limenitis populi* (wings bottom coloration) (family Nymphalidae), Camberwell beauty *Nymphalis antiopa* (Nymphalidae), European peacock *Aglais io* (Nymphalidae); middle row: poplar hawk-moth *Laothoe populi* (Sphingidae), poplar admiral *Limenitis populi* (Nymphalidae); bottom – goat moth (*Cossus cossus*, family Cossidae); middle – European garden spider *Araneus diadematus* (Araneae: Araneidae); bottom left – female common hawker *Aeshna juncea* (Odonata: Aeshnidae); bottom – musk beetle *Aromia moschata* (Coleoptera: Cerambycidae) and red-brown longhorn beetle *Stictolepura rubra* (Coleoptera: Cerambycidae). This plate (Ca 224, dwg 18) demonstrates that the artist must have been familiar with Joris Hoefnagel's 'Archaetypes' or Jan van Kassel's miniatures. At the end of the insect volume, Niedenthal dedicated several drawings to beetles (Fig. 12): spotted longhorn *Leptura* sp. (Coleoptera: Cerambycidae); unidentifiable jewel beetle (Buprestidae); melolonthine scarab beetle *Polyphylla fullo* (Scarabaeidae: Melolonthinae); and female European stag beetle *Lucanus*



**Fig. 12:** Samuel Niedenthal, Beetles, SKD Ca 224: 48: *Leptura* sp. (Cerambycidae); Buprestidae; *Polyphylla fullo* (Scarabaeidae); female *Lucanus cervus* (Lucanidae).

*cervus* (Lucanidae). An interesting work from this volume is a mysterious self-portrait of the artist already discussed in literature.<sup>41</sup> Dated 1651, the drawing, which has numerous inscriptions, is divided into three parts. The top one presents a spider defined by the inscription as *Tarantula Rutenica Crenita* (Ca 224, dwg 53),<sup>42</sup> with a cross-section of a burrow and the seated artist. On the same sheet is an artistically rendered gouache presentation of the ventral side of a specimen of this spider (Ca 224, dwg 53). Refined to the minutest of detail and with subtle brushstrokes, the

piece actually constitutes a painterly miniature.

It seems very likely that a large group of Niedenthal's drawings from Dresden constitute completed works. They are mainly executed in oil or gouache, or with mixed techniques, rarely featuring any captions. Moreover, it seems that with time the scientific approach to the studied specimens began to dominate in the artist's works. Sketches from the 1660s feature detailed inscriptions.

## The lost drawings from Erlangen

Regardless of who collected and systemised the Dresden collection of Niedenthal's works according to species, there existed a sizeable group of drawings by the artist used in the eighteenth century by Jacob Theodor Klein in his scientific work on birds. These were written about as late as the nineteenth century by Carl Th. von Siebold.<sup>43</sup> Indeed, in 1969, in Erlangen, where a substantial part of the Danzig naturalist's legacy was deposited, many of his drawings were incorporated into the *Musei Kleiniani Pars VII ... Aviarium Prussicum*.<sup>44</sup> They are currently regarded as lost. Originally containing 232 drawings of birds, by Siebold's times the volume had lost 54 drawings, while in 1912, Gengler enumerated merely 95 of them.<sup>45</sup> The drawings specialised in Prussian fauna may suggest that Niedenthal was particularly interested in regional animal species, focusing mainly on birds.

<sup>41</sup> TYLICKI, Rysunek gdański..., kat. [X p. 17], JAŚNIEWICZ, Portret w Gdańsku..., pp. 95, 454–455.

<sup>42</sup> The figure presents its ventral side. It seems to be a kind of wolf spider (Lycosidae), but probably not *Lycosa singoriensis*. The family Lycosidae is a large group with over 2400 species worldwide; in Europe it is represented by over 80 species (67 recorded in Poland).

<sup>43</sup> SIEBOLD Carl Theodor. Neue Beiträge zur Wirbelthier = Fauna Preussens, In: *Vaterländisches Archiv für Wissenschaft, Kunst, Industrie und Agrikultur oder Preussische Provinzial-Blätter*, 1842, Bd. 27, pp. 420–437. Siebold informed that the collection also contained works by: D. Schultz, Hoffmann, and Behm.

<sup>44</sup> GEUS Armin. Die Vogelbilder des Danziger Malers Samuel Niedenthal, In: *Festschrift für Claus Nissen zum siebzigsten Geburtstag*, Wiesbaden: Pressler, 1973, pp. 277–301 [In German].

<sup>45</sup> GENGLER Josef. Die Klein'schen Vogelbilder. In: *Journal of Ornithology*, 1912, Bd. 60, No. 4, pp. 570–591. SOBECKA, Początki badań..., p. 22.

Niedenthal's drawings from Erlangen, similarly to the Dresden collection, only some (29) of Niedenthal's drawings from Erlangen were signed. A substantially larger group of works have been attributed to the artist by analogy. Bearing in mind the fact that the Dresden book named 'Osieux' has the most pictures (366), and assuming that the majority of the presentations from Erlangen attributed to him were by him, it can be concluded that it was the drawings of birds that dominated Niedenthal's oeuvre.

## Summary

Niedenthal's oeuvre is extremely rich and fascinating, due both to its focus on animal studies – which were still a novelty at that time – and to its affinity to science. Quite likely, his works were created as a result of his cooperation with Danzig naturalists. However, it goes without saying that Niedenthal himself displayed a scientific bias; this is also testified to by the detailed notes on some of his drawings.

The Dresden collection of Niedenthal's drawings essentially alters the picture of the artistic and scientific culture of Danzig in the mid-seventeenth century. This is also a big challenge for museology and art history. The discussed volumes still require detailed and interdisciplinary research. Furthermore, they call for systemising as well as precise, technologically grounded investigation, discussion of the techniques used, as well as for solving attribution and dating uncertainties. However, just a preliminary analysis of the Animal Book from Dresden contributes much to our knowledge of Niedenthal's oeuvre, his scientific determination, and the variety of techniques he used. It clearly demonstrates that animal subjects were already the focus of his interest at an early stage of his artistic activity. When travelling across Holland and the German states, he copied presentations by other artists, especially drawings of exotic animals.<sup>46</sup> Later, he focused on the local fauna and his works are characterised by a more analytical approach to the presented animals.

Niedenthal's three Dresden volumes are the first such complete zoological compendium created in this part of Europe. The artist may have intended to create a printed compendium, possibly in cooperation with a Danzig scientist. Regrettably, the plan was aborted due to the death of its creator/creators. Preserved in only one original copy, the drawings were never compiled. Kept in Dresden for hundreds of years they remained unknown, yet in comparison with, for example, illustrations for *Natural History* collected by Joannes Jonstonus (John Jonston, 1603–1675) they are far more specific and contain more examples of the local fauna.

In order to present exotic animals (elephants, giraffes, crocodiles, armadillos, monkeys, etc.) the painter active in Danzig, similarly to many others in his times, resorted to models created by other artists. What seems the most interesting, however, are his studies of the local fauna. Some of the species may have been presented and briefly described by him for the first time in the history of science. Therefore, not only does Niedenthal deserve the highest appreciation among artists but also the name of a scientist who, a hundred years before Linnaeus, had observed, systemised and described the specimens of the fauna in Pomerania.

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<sup>46</sup> For example, copies after Zacharias Wagner – such as Ca 211, dwg 179, which is a copy of Wagner's Thierbuch [dwg 82]. Also, Ca 211, dwgs 49 and 180 are variants of Wagner's presentations. For more on Wagner, see: TEIXEIRA Dante Martines (1997). *The "Thierbuch" e a "Autobiografia" de Zacharias Wagener. (Brasil Holandês, ed. FERRÃO Cristina, SOARES Jose Paulo Monteiro)*, Rio de Janeiro: Ed Index 1997. See also: BOESEMAN Marinus, WHITEHEAD, Peter James Palmer. *A portrait of Dutch 17<sup>th</sup> century Brazil: Animals, plants and people by the artists of Johan Maurits of Nassau*. Amsterdam: North-Holland Publ., 1989, pp. 48–53.

Niedenthal's notes on the drawings, made meticulously from the 1650s, point to a growing zoological awareness. They may have been made at the instigation of Danzig-based scientific researchers into fauna, particularly coastal fauna. Some of Niedenthal's drawings were created before the Brazilian sketches by Frans Post and Georg Marcgraf published in the *Libri principis* and *Theatrum rerum naturalium Brasiliae*, which gives Niedenthal's works a special position in the history of European zoology. Even if he had to copy some of the exotic specimens, for example, from *Libri Picturati* (formerly in Berlin, now in Kraków), Niedenthal's works show a much higher artistic level than the copies deposited in St Petersburg.<sup>47</sup> But it was the study of local fauna that he was passionate about, and it is this part of Niedenthal's oeuvre that we have analysed and that is most valuable for the development of science.

To date, Niedenthal's drawings have not been exhibited. Stored in the engraving cabinet, they have been viewed by a few researchers, and only SKD staff have permanent access to them. The fact that collector (perhaps Gottwald) compiled these works in three volumes 350 years ago is certainly of historical value. However, some of the drawings are not in the best condition and need restoration work. The paint layer is wearing away and causing the details and inscriptions to be gradually obliterated. It would also be worthwhile to carry out research into paper. It is possible that watermarks would be revealed on some of the drawings, which could help to date those drawings that lack inscriptions. Digitalisation, in turn, would allow for their further study in various contexts – zoological and artistic – as well as their exhibition, for example, in their place of origin, Gdańsk. Niedenthal's drawings are therefore a unique example of artistic and zoological heritage.

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<sup>47</sup> BOESEMANN Marinus, HOLTHUIS Lipke, HOOGMOED Martinus & SMENK Chis. *Seventeenth century drawings of Brazilian animals in Leningrad*. Zoologische Verhandlungen 267, 1990, pp. 1–189.

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