

Marie Martens

Angul Hammerich and the Bronze Lurs.

To Play or to Display

Introduction The present article deals with the reception history of the bronze lur from an archival and museum history perspective. However, sources from the nineteenth and twentieth centuries held by the National Museum of Denmark reveal surprisingly little evidence about these characteristic musical instruments and their relatively new life as museum objects.¹

Even though the bronze lurs from the Bronze Age (circa 1800–500 BC) were investigated during the nineteenth and twentieth centuries, they continue to be a mystery. It is presumed that these instruments from Nordic prehistory were a cult symbol of the Sun, and that they were probably played to worship it. Nevertheless, it is impossible to say anything about how these instruments were played, nor how they sounded 3000 years ago. The bronze lurs are a particularly Nordic phenomenon, and they are likely to have served as status symbols. The first pair of bronze lurs was unearthed in Denmark in the bog of Brudevælde in 1797.²

The original name of these ancient instruments remains unknown. In the nineteenth century, the S-shaped natural trumpet with a conical bore was given the name “lur” – a word with roots in the Nordic sagas that was adopted from the wooden lur of the Viking Age (800–1050 AD). This could to some extent explain the great historical confusion between the bronze lurs and the Viking Age, a misinterpretation with roots in the first part of the nineteenth century.³

Pioneering survey of the bronze lurs Angul Hammerich (1848–1931), a Danish music historian and the founder and first director of the Musikhistorisk Museum in Copenhagen, was the first to carry out thorough research and an examination of the original

- ¹ This article is partly based on a paper presented at the CIMCIM conference in Switzerland, 22–25 February 2017.
- ² I owe my gratitude to Lone Klint Jacobsen and Flemming Kaul, National Museum of Denmark, for access to the archives held by the Department of Nordic Prehistory and for information about the Bronze Age in general.
- ³ Jørgen Jensen: Toner fra fortiden, https://danmarksoldtid.lex.dk/Toner_fra_fortiden (all links last consulted 16 November 2022).

bronze lurs in the National Museum of Denmark, which he followed up with sound recordings.⁴

According to Hammerich, the earliest description of the bronze lurs was published in a Danish periodical in 1843–45, but in fact we owe the first published description to the second director of the National Museum of Denmark, Christian Jürgensen Thomsen (1788–1865). His three-age system from 1818, which divided the prehistoric periods into Stone, Bronze and Iron Age, was printed in 1836. Jürgensen Thomsen's guideline to Nordic prehistory presented the first illustration of the then so-called bronze war trombones. Only one lur with its flat ornamental disc pointing downwards was depicted.⁵ Jürgensen Thomsen stated that the bronze lurs in the National Museum at this time were in good condition and that it was possible to play them. Apparently, no further documentation of the bronze lurs was carried out at this point. Hammerich's strongly criticised thesis that the bronze lurs were musical instruments in their own right, published in Danish in 1893, was based largely on his experiments with playing the original bronze lurs in the National Museum of Denmark. Hammerich's thesis was published in German in *Vierteljahrschrift für Musikwissenschaft* the following year.⁶

The passionate critics of Hammerich's methods and results included renowned people from Denmark and abroad, including the Danish philosopher and mathematician Kristian Kroman (1846–1925).⁷ Kroman's critical articles from 1902 and 1904 were followed by the German organologist Curt Sachs's (1881–1959) point of view in 1913.⁸ Amongst other arguments, published as late as ten and twenty years after Hammerich's thesis, they claimed that Hammerich had supposedly assumed that the people of the Bronze Age were concerned about the shape of the mouthpiece, the quality of tone, the use of overtones, and a theory of some kind of polyphony.

- 4 Angul Hammerich: Studier over Bronzelurerne i Nationalmusæet i Kjøbenhavn, in: *Aarbøger for nordisk Oldkyndighed og Historie* II/8 (1893), pp. 141–190.
- 5 [Christian Jürgensen Thomsen]: Kortfattet Udsigt over Mindesmærker og Oldsager fra Nordens Fortid, in: *Ledetraad til Nordisk Oldkyndighed*, ed. by Det kongelige Nordiske Oldskrift-Selskab [Carl Christian Rafn], Copenhagen 1836, pp. 27–87, here p. 48.
- 6 Angul Hammerich: Studien über die altnordischen Luren im Nationalmuseum zu Kopenhagen, in: *Vierteljahrschrift für Musikwissenschaft* 10 (1894), pp. 1–32.
- 7 Kristian Kroman: Nogle Bemærkninger om Bronzelurerne i Nationalmusæet i Kjøbenhavn, in: *Aarbøger for nordisk Oldkyndighed og Historie* II/17 (1902), pp. 79–118; Kristian Kroman: Et Par afsluttende Bemærkninger om Bronzelurerne og hvad de lærer os om de nordiske Bronzealderfolks musikalske Standpunkt, in: *Aarbøger for nordisk Oldkyndighed og Historie* II/19 (1904), pp. 65–88.
- 8 Curt Sachs: *Real-Lexikon der Musikinstrumente, zugleich ein Polyglossar für das gesamte Instrumentengebiet*, Berlin 1913, pp. 245f.

However, the question of polyphony in early prehistoric Scandinavian music originated with François-Joseph Fétis (1784–1871), to whose *Histoire générale de la musique* (published in 1869–1876) Hammerich referred a number of times in his own thesis. Most bronze lurs were found in pairs, tuned at more or less the same pitch, but this does not necessarily mean that the instruments were played polyphonically or even in a manner of two-part playing, and Hammerich in fact left open the question of Fétis's theories of polyphony in ancient Scandinavian music.⁹

In an article published in 1903, Hammerich responded to Kroman's criticism and, once again, defended the bronze lurs' value as musical instruments.¹⁰ Hammerich's research methods were also criticised by the Danish organologist Hortense Panum (1856–1933), whose music encyclopaedia, published in 1924, questioned Hammerich's conclusions about the bronze lurs.¹¹

In his monograph about Danish music history, published in 1921, Hammerich moderated his arguments, as he did in a manuscript for a series of lectures on music history given at the University of Copenhagen in the period circa 1904–1919.¹² Hammerich was an associate professor of musicology at the University of Copenhagen from 1896 to 1922, and he also gave public speeches on the subject of the bronze lurs. Newspaper advertisements give us an inkling of how popular his lectures must have been at the time of an increasing general interest in the bronze lurs.¹³

In 1931, Godtfred Skjerne (1880–1955), a Danish lawyer and music historian, was appointed director of both the Musikhistorisk Museum and the Carl Claudius Collection after the deaths of Angul Hammerich and Carl Claudius that same year. In 1949, Godtfred Skjerne dealt with the problems of the bronze lurs as musical instruments by adopting a more cautious, scientific approach.¹⁴ In his review of Skjerne's results, Curt Sachs

- 9 François-Joseph Fétis: *Histoire générale de la musique depuis les temps les plus anciens jusqu'à nos jours*, Vol. 4, Paris 1874, pp. 466 f.; Hammerich: *Studier over Bronzelurerne i Nationalmusæet i Kjøbenhavn*, pp. 184–188.
- 10 Angul Hammerich: *Om Bronzelurerne som Musikinstrumenter*, in: *Aarbøger for nordisk Oldkyndighed og Historie* II/18 (1903), pp. 62–72.
- 11 Hortense Panum/William Behrend: *Bronzelur*, in: *Illustreret Musiklexikon*, Copenhagen 1924, pp. 383–385.
- 12 See Angul Hammerich: *Dansk Musikhistorie indtil ca. 1700*, Copenhagen 1921, pp. 1–11. Angul Hammerichs Papirer (MMCCS Archive 315), *Manuskripter og Optegnelser til Forelæsninger* (46 – J, 1a–1b), XXIV. *Danmarks Musikhistorie*, 1. Oldtid. Middelalder (Danish Music Museum, National Museum of Denmark).
- 13 See *Adresse Avisen. Upolitisk Handels-Børs-Nyheds og Avertissements-Tidende*, 6 January 1893, p. 1.
- 14 Hans Christian Broholm/William P. Larsen/Godtfred Skjerne: *The Lures of the Bronze Age. An Archaeological, Technical and Musicological Investigation*, Copenhagen 1949, pp. 73–129.

acknowledged the fact that Skjerne did not jump to conclusions in terms of how the bronze lurs could have been played and how they could have sounded.¹⁵

In his work on the bronze lurs, it is evident that Hammerich was viewing them from the perspective of his own time and from the viewpoint of Western art music. From his modern standpoint, he failed to consider that the bronze lurs were more likely to have been used for cult purposes, rather than as highly developed musical instruments. Consequently, Hammerich's conclusion that the bronze lurs had a "strong but not sharp tone" seems unlikely, and reflects the modern aesthetic of his own time.¹⁶ In Hammerich's manuscript for his abovementioned lecture on prehistoric music, he pointed out that the sound of the lurs could be both soft and thunderous. In fact, Hammerich quoted ancient Greek and Latin texts which described the sound of – for example – the cornu as "terribilis", but he initially did not find parallels to the bronze lurs.¹⁷ It would seem that he later paid greater attention to the arguments of his critics.

To play or not to play If one looks at the bronze lurs as mere objects, it is easy to understand the urge to know their sound. Thanks to a different view of museum objects, Hammerich's pioneering sound recordings of the bronze lurs in 1894 provided his own time with an idea of how the original bronze lurs sounded. If we disregard the fact that the bronze lurs had been museum objects for decades, then Hammerich actually applied a modern documentary approach to his research. In his thesis, Hammerich specifically addressed which of the bronze lurs could be played, and which should not be touched under any circumstances. Thus, in his sound documentation of the bronze lurs, Hammerich took seriously the task of preserving the instruments and saving them for posterity.

Today, we must take into account the fact that the times were different back then, and that our attitude towards conservation and preservation has changed over the years. The question of playing or not playing original musical instruments in museum collections was an issue neither to Hammerich nor to Carl Claudius (1855–1931), the Danish private collector of musical instruments. Both Hammerich and Claudius arranged historical concerts on more or less original period instruments in their collections, and this was in overall keeping with the practice at the time in musical instrument museums and private collections of musical instruments abroad.

¹⁵ Curt Sachs: [Review] H. C. Broholm, W. P. Larsen, G. Skjerne. The Lures of the Bronze Age, in: *Journal of the American Musicological Society* 1 (1950), pp. 46–48.

¹⁶ Hammerich: *Studier over Bronzelurerne i Nationalmusæet i Kjøbenhavn*, pp. 152–155.

¹⁷ *Ibid.*, p. 181.

From the very beginning, Angul Hammerich specifically wanted the instruments in the Musikhistorisk Museum to sound, and he referred to the instruments as “living objects”.¹⁸ From as early as 1898, Hammerich invited renowned Danish musicians to participate in the historical concerts given at the museum. Even though the concerts were often accompanied by Hammerich’s addresses about music history, the lack of lectures about organology and historical performance practice suggests that these aspects of musicology were not of interest to Hammerich.¹⁹ This fact corresponds to his approach to the investigation of the bronze lurs. Historical concerts also took place in the Carl Claudius Collection, and Claudius referred to the old instruments as “Klangkister” – sound chests – and by that probably meant that their captured sound was only waiting to be released.²⁰

Hammerich had found parallels between the mouthpieces of the prehistoric bronze lur and the modern trombone. Even though the mouthpiece of the bronze lur is permanently affixed to the instrument, he applied modern trombone mouthpieces during the recording process. Hammerich must have been aware that this would change the tone and pitch, and that his methods and results would thus be disputed. It is well known that the shape of the mouthpiece, playing technique, time period, geography, and the musician himself are important factors of sound production. We must also assume that Hammerich was indeed aware of the fact that tone production would be much more difficult when using the original bronze lur mouthpieces. In order to further test the tone quality of the bronze lurs, Hammerich also used modern horn and trumpet mouthpieces for his experiments and, obviously, he found that this did in fact alter the tone.²¹

The question of corrosion in relation to the issue of playing or not playing musical instruments from museums must be briefly mentioned. In 1986, a research project was conducted by the National Museum of Denmark. A conservator had the opportunity of doing an endoscopy of one of the bronze lurs from the bog of Brudevælde and, needless to say, corrosion was found. Angul Hammerich concentrated on these particularly well-preserved musical instruments from Brudevælde for both his research and most of his recordings of bronze lurs. Many factors such as production technique, amalgamation, use, soil, climate, air pollution – and the bronze lurs’ new life as museum objects – make

18 Anne Ørbæk Jensen: Disse Monumenter ere jo ikke Stene, in: *Musikkens tjenere. Instrument – forsker – musiker*, ed. by Mette Müller and Lisbet Torp, Copenhagen 1998 (Meddelelser fra Musikhistorisk Museum og Carl Claudius’ Samling, Vol. 6), pp. 33–69, here p. 61.

19 *Ibid.*, p. 33–45.

20 Carl Claudius: *Carl Claudius’ Samling af gamle Musikinstrumenter/Collection Carl Claudius* [descriptive catalogue published by Godtfred Skjerne], København 1931, p. 14. Letter from Carl Claudius to Angul Hammerich, 1 August 1898 (Danish Music Museum, National Museum of Denmark).

21 Hammerich: *Studier over Bronzelurerne i Nationalmusæet i København*, p. 179.

it impossible to distinguish between corrosion from the Bronze Age and the damage that must have followed by playing the instruments from the 1890s down to our own time. In other words, electrochemistry remains independent of time.²²

Recordings of the original bronze lurs The archives held by the Department of Nordic Prehistory in the National Museum of Denmark show that the original bronze lurs have been played on surprisingly many occasions since the 1890s, and that many trombone players from Denmark and abroad have applied for permission to play them, even quite recently.

The original bronze lurs have also been recorded a number of times. The recordings from 1894, 1925, and 1966 were authorised and published by the National Museum of Denmark, featuring prominent trombone players. The pioneer recordings from 1894, which followed the year after Hammerich's thesis, are part of the Ruben Collection and thus among the oldest sound recordings in the world. As chief representative of Edisons Fonograph-Compagniet in Copenhagen, consul-general Gottfried Ruben (1837–1897) had the opportunity of capturing the musicians of the time on wax cylinders. Hence the 1894 recordings of original bronze lurs can still be heard.²³

In 1925, Hammerich recorded a short speech about the prehistoric bronze lurs in the National Museum, and this was released together with recordings of the original instruments.²⁴ As the 78-RPM technique had superseded wax cylinders, it was also an opportunity to produce a new, modern recording. At this time, the bronze lurs had become symbols of national importance in Denmark, and Hammerich's work on them had also prompted international interest. In March 1925, bronze lur playing from the town hall of Copenhagen was broadcast on European radio to mark the fact that the original musical instruments would never sound again. The purpose of both events was to raise money for the benefit of the National Museum of Denmark, and Hammerich and the spectacular bronze lurs attracted a lot of attention in the newspapers of the time.²⁵

- 22 The author is grateful to conservators Birthe Gottlieb and Signe Nygaard, National Museum of Denmark, for information about the 1986 endoscopy project and for facts about the bronze lurs and corrosion in general. For a description of corrosion in bronze lurs, see Birthe A. Gottlieb: *Lurparret fra Ulvkær i Vendsyssel. Røntgenundersøgelser*, in: KUML, *Årbog for Jysk Arkæologisk Selskab* (1990), pp. 31–36
- 23 The Ruben wax cylinders, circa 1894, recording Nos. 29, 128, and 131. Digitised by the Royal Library – Aarhus, www.kb.dk/en/find-materials/collections/sound-recordings-collections/cylinders-ruben-collection.
- 24 Danmarks gamle Lurer – tusindaarige Toner. Foredrag af Professor Dr. Angul Hammerich. Optaget paa Nationalmuseet d. 12. 5. 1925. Udsendt til fordel for Nationalmuseet af Berlingske Tidende & Nordisk Polyphon [78-RPM], Polyphon x.s. 40657.
- 25 Original recordings in the Danish Radio archives (Danmarks Radio). See e.g. [Anon.]: *Lurblæsning*

The museum authorities, among them the previous director of the National Museum, Dr Sophus Müller (1846–1934), had for a long time expressed worries about the state of preservation of the bronze lurs.²⁶ However, the National Museum was in urgent need of money and it would seem that the public subscription through the “Nationalmuseum-fondet” in 1925/26 was considered more important than the actual instruments. Hammerich referred to Müller’s books on Danish prehistory in his thesis, and he and Müller must have exchanged letters about the bronze lurs at the time of Hammerich’s survey of the instruments. However, the only solid evidence of a personal connection between the two men seems to be Hammerich’s handwritten dedication to Müller on his thesis.

The 1925 recording was supposed to be the last, but in 1966 the National Museum of Denmark released a new recording of the original bronze lurs. On all three occasions, the repertoire played and recorded was Western art music. The 1894 and 1925 recordings were performed by two musicians from the Royal Danish Orchestra who played the national melody *Herlig en Sommernat* by the German-Danish composer Friedrich Kuhlau (1786–1832). The tune is largely based on the natural harmonic series and therefore well suited for natural trumpets without finger holes such as the bronze lurs, though some tones have to be left out or substituted by other tones. Furthermore, the recording included what was considered to be battle signals. However, at the time it was not known that the bronze lurs were unlikely to have been used in battle.

The original bronze lurs were also played on many other occasions. Every year on Midsummer’s Day from 1890 to 1910, a pair of bronze lurs was played from the rooftop of the National Museum.²⁷ It was a very popular tradition, and the public protested when this spectacular ritual was stopped due to the state of preservation of the bronze lurs.²⁸

The archives held by the Department of Nordic Prehistory show that both the National Museum of Denmark and the musicians Palmer Traulsen and Georg Wilkenschildt of the Royal Danish Orchestra wished to make a scientific recording of the original bronze lurs once and for all. The Danish archaeologist Hans Christian Broholm (1893–1966), the head curator of the Department of Nordic Prehistory from 1936 to 1965, was displeased with the lack of scientific and musicological results from the existing recordings of the original bronze lurs. However, the funding for a scientific recording could not be raised at the time. In 1947, these two musicians, Traulsen and Wilkenschildt, were appointed to conduct an examination of the bronze lurs in playable condition in the

og Sang pr. Radio, in: *Politiken*, 13 March 1925. [Anon.]: Efter den historiske Lurlblæsning, in: *National-tidende*, 16 March 1928, p. 1. [Anon.]: De gamle Lurer for sidste gang, in: *Berlingske Politiske og Avertissementstidende, Aften*, 12 May 1925, p. 8.

26 Anton Hansen. *En Kgl. Kapelmusikers erindringer*, ed. by Per Gade, Copenhagen 1996, pp. 48, 242–244.

27 Hans Kjær: *Vor Oldtids Skatte*, ed. by Palle Rosenkrantz, Copenhagen [s. a.], pp. 66 f.

28 J. F.: Den sidste Lurlblæsning, in: *Københavns Orkesterforenings Medlemsblad* (1910/11), pp. 141 f.

FIGURE 1 Original bronze lurs played on Midsummer's Day, circa 1900 (Department of Nordic Prehistory, National Museum of Denmark)



National Museum. They very carefully pointed out the various differences between the lur pairs, and stressed the importance of the use of original mouthpieces during the test in order to get a convincing result.²⁹

In 1949, Broholm published the monograph *The Lures of the Bronze Age* with William P. Larsen and Godtfred Skjerne. In order to attain the most precise data available at the time for their scientific work, acoustic measurements were performed by the Acoustical Laboratory of the Danish Academy of Technical Sciences in Copenhagen.³⁰ The recor-

- 29 Dokument over Afprøvelingen af de intakte Lurer foretaget 1947 af Kgl. Kapelmusikus Palmer Traulsen og Kgl. Kapelmusikus Georg Allin Wilkenschildt (Department of Nordic Prehistory, National Museum of Denmark).
- 30 [Results of acoustical measurements performed on 11 bronze lurs in the National Museum of Denmark by the Acoustical Laboratory of the Danish Academy of Technical Sciences in Copenhagen,] Akademiet for de Tekniske Videnskaber – Lydteknisk Laboratorium, Fritz Ingerslev to Godtfred Skjerne, 5 February 1948 (Department of Nordic Prehistory, National Museum of Denmark).

dings seem to be lost, but Godtfred Skjerne's description of the results was published in the book.³¹

However, at the time of the LP recording in 1966, Traulsen and Wilkenschildt, despite all their good intentions, played the same type of Western art music that had been recorded before. This commercial recording included music by Danish composers, for example Carl Nielsen and Hakon Børresen, along with a number of the musicians' own compositions, such as *Bronze Age Rag*.³² The bronze lurs' original mouthpieces were used for this recording, but the sound quality remains soft and appealing because of the modern playing technique, the embouchure, and the repertoire of these very skilled musicians. Once again, the recording turned out to be a presentation of the ancient musical instruments played in the manner and tradition of modern Western art music. In fact, it would seem that the bronze lurs were played and recorded precisely because this was possible.

Today, permission to play these instruments is unlikely to be granted, but as late as 1984, the Swedish musician, researcher and music archaeologist Cajsa S. Lund was given permission to record original bronze lurs for the *Musica Sveciae* LP *Fornnordiska klanger*. The recording includes "12000 years of music in 60 minutes" and brings a scientific approach to music from Nordic prehistory. Lund's method is very different from Hammerich's, and gives a theoretical answer as to how the instruments might have sounded in prehistoric times. The recording also offers a plausible answer to how they were used, namely that the bronze lurs were most likely to have been played for cultic purposes.³³

It does, however, remain a fact that the original bronze lurs have been played and recorded on many occasions in recent times for the sake of sheer entertainment and for commercial purposes. This includes incidental music composed for and played on original bronze lurs by Traulsen and Wilkenschildt on the occasion of the National Museum's 150th anniversary in 1957, Queen Elizabeth II's state visit to Denmark in 1957, a German recording from 1997, and the 1998 recording by the Royal Danish Brass Ensemble which used the lurs from Brudevælde and Folrisdam.³⁴

31 Broholm/Larsen/Skjeerne: *The Lures of the Bronze Age*, pp. 83–106.

32 *Klange fra Danmark's Bronzealder-Lurer/Music Blown on Lurs from the Danish Bronze Age*, Kgl. Kapelmusici Palmer Traulsen/Georg A. Wilkenschildt, Nationalmuseet/National Museum [LP, 1966]; NM 67-001.

33 *Fornnordiska klanger/The Sounds of Prehistoric Scandinavia*, *Musica sveciae*: LP 1984, MS 101. CD: 1991, MSCD 101, ed. and annotated by Cajsa Lund [liner notes pp. 18 f., 30 f.].

34 *Lurkomposition af Palmer Traulsen tilegnet Det Danske Nationalmuseum ved 150-års jubilæet d. 15. maj 1957. Uropført på Brudevældelurerne i C. Solister: Georg Wilkenschildt og Palmer Traulsen*, Det Kgl. Kapel (Department of Nordic Prehistory, National Museum of Denmark), original recordings in the Danish Radio

Exhibiting the bronze lurs No contemporary sources for the bronze lurs exist from the Bronze Age apart from rock carvings, whereas early written descriptions of ancient musical instruments from Greece and Rome have been handed down in the writings of men such as Vergil and Lucan.³⁵ Angul Hammerich used rock carvings to provide a plausible answer to the question as to how the bronze lurs were held during playing.³⁶

Photographs of the bronze lurs on display in the Nordic Prehistory exhibition in the 1880s clearly emphasise the fact that the playing position was still an unanswered question at that time. The lurs were mounted with their flat ornamental disc pointing downwards, and this was also the case with depictions of the bronze lurs in books up to then.³⁷ Hammerich argued that the end plate should be in an upward position, both because it would otherwise be impossible to play the bronze lurs, and because the instruments would then sound better.³⁸

The way the bronze lurs were mounted in the permanent exhibition in the 1930s reflected Hammerich's theory. So did the permanent exhibition from 1992 onwards, which presented the bronze lurs in a story-telling context that made it very clear to museum visitors that the bronze lurs were found in pairs. The current, permanent exhibition, which dates from 2007, is a different matter and stages the bronze lurs in a way that makes them seem like works of art with no reference to their use or history.

Hammered copies When the Musikhistorisk Museum opened in Copenhagen in 1898, the well-known Holmegaard glassworks presented Angul Hammerich's new museum with a copy of a bronze lur made of glass (MMCCS inv.no. F 57). This strongly emphasises the importance of Hammerich's research and the attention it was given.

Hammered copies of the bronze lurs were made from around the turn of the 20th century. The measurements and drawings from Angul Hammerich's work on the bronze lurs were given to the instrument makers I. K. Gottfried, whose company used these materials as the source of their lur Werdegang. These materials were most likely also used during the continuous restoration and conservation of the original bronze lurs – mea-

archives (Danmarks Radio). *Die Luren – Klingende Zeugen der Bronzezeit*, Stephan Maier, Classico Schallplatten, 1997, CR 7020833. *Bronze and Brass, Music from the Danish Past and Present*, Royal Danish Brass Ensemble, Rondo, 1998, RCD 8366.

35 Hammerich: *Studier over Bronzelurerne i Nationalmusæet i Kjøbenhavn*, pp. 180 f.

36 *Ibid.*, pp. 158–162. Hammerich: *Dansk Musikhistorie indtil ca. 1700*, pp. 9 f.

37 Well-known examples include Jens Jacob Asmussen Worsaae: *Afbildninger fra Det Kongelige Museum for Nordiske Oldsager i Kjøbenhavn*, Copenhagen 1854, p. 33; *id.*: *The Industrial Arts of Denmark from the Earliest Times to the Danish Conquest of England*, Covent Garden 1882, pp. 90 f.

38 Hammerich: *Studier over Bronzelurerne i Nationalmusæet i Kjøbenhavn*, pp. 158–162.



FIGURE 2 Exhibition of the bronze lurs, Department of Nordic Prehistory, circa 1880 (Department of Nordic Prehistory, National Museum of Denmark)

tures that will have been necessary because of the instruments having been played. The lur Werdegang is now held by the Danish Music Museum.³⁹

The private collector Carl Claudius owned a pair of bronze lur copies, and his 1931 catalogue of his collection (published posthumously) showed his fascination with these instruments and the culture that had created them. Claudius also acknowledged the fact that it had proved impossible to copy the casting techniques of the Bronze Age.⁴⁰ The bronze lurs probably survived their many years in the bogs because they had been cast, not hammered. They thus bear witness to a highly developed culture capable of an exceptional casting technique – though this does not necessarily mean that the bronze lurs themselves were highly developed musical instruments, such as Angul Hammerich had argued.

The pair of lur copies from the Carl Claudius Collection was made by one of the renowned Danish instrument makers, either I. K. Gottfried or V. Schmidt (the Claudius catalogue and archives offer hardly any information about provenance). Both produced lur copies from plate metal because it had proved impossible to cast a pair of bronze lur

39 I. K. Gottfried: *Bronze lur Werdegang* (Danish Music Museum, National Museum of Denmark, MMCCS Archive 96).

40 Claudius: *Carl Claudius' Samling af gamle Musikinstrumenter/Collection Carl Claudius*, pp. 310–312.

copies that could actually be played.⁴¹ John Petersen, an instrument maker with I. K. Gottfried, explained in an interview that no one had attempted to cast bronze lur copies since the 1930s because the tube turned out thicker on one side, making the instrument impossible to play. Hammered copies have thinner ‘walls’ than the original bronze lurs which were cast *à cire perdue*, so intonation is easier on the copies, and their tone is more agreeable to the modern ear – a fact that Hammerich also pointed out.⁴²

Thanks to modern techniques, a Danish trombone player and a Danish bronze caster recently managed to cast a pair of playable bronze lurs.⁴³ It is quite thought-provoking that it requires X-rays and 3D-scanning to imitate the casting techniques of Bronze Age people!

Now that we have playable, cast lur copies, it seems unlikely that the original bronze lurs will ever sound again. However, as the bronze lurs continue to fascinate, the question whether ‘to play or not to play’ historical musical instruments in a museum collection will always remain relevant. A better question to ask would be: When to play and when not to play.

The bronze lurs and the Vikings Little could Hammerich have known that his work would set off a ‘bronze lur revival’. The reception history of the bronze lurs from the nineteenth century down to our own time is rather odd, as they have been very much associated with the Viking Age. However, the Vikings played the wooden lur, never the bronze lurs – at the time of the Vikings, the bronze lurs had been in the bogs for a couple of thousand years (something that Hammerich specifically emphasised in his thesis).⁴⁴ One might therefore assume that people ought to know better – but associating the bronze lurs with the Vikings proved too popular as a Danish national symbol.

This misinterpretation of the bronze lurs as Viking instruments probably originated with François-Joseph Fétis. The fact that Fétis discussed the bronze lurs in his chapter about Scandinavian music in the Middle Ages – “La musique chez les peuples scandinaves

41 En musikforretning i 200 år – I. K. Gottfried 1796–1996, ed. by Klaus Bjerre and Lars Jonasson, Copenhagen 1996, pp. 7–9; Robert Naur: I. K. Gottfried. 185 år blandt blæseinstrumenter. Skitser af et dansk instrumentmagerværksted gennem 7 slægtled, Copenhagen [1981], pp. 12 f.

42 Trutter så trommehinderne blaffer, in: Roskilde Tidende, 20 October 1984; Hammerich: Studier over Bronzelurerne i Nationalmusæet i København, p. 157.

43 The results of the work by Jens Christian Kloster and Gaute Vikdal can be heard on the recording Bronselur – Klang av oldtid, Euridice 2014, EUCD 92 (see also www.bronselur.no). The booklet reads: “The Bronze Lurs for this recording are exact copies of Brudevælte lurs in C at the National Museum in Copenhagen. Copies are made of ‘Broncestøberiet A/s’ by Peter Jensen by scanning MOEF A/s. The lurs were completed in summer 2013 after years of planning and study of casting technique at various museums in Denmark and Norway”.

44 Hammerich: Studier over Bronzelurerne i Nationalmusæet i København, p. 187.



FIGURE 3 Undated photo of instrument makers V. Schmidt and R. W. Stepnicka (The Danish Music Museum/National Museum of Denmark)

au moyen age” – makes one wonder if he was simply lured by the mistaken idea that the Vikings could have played musical instruments from the Bronze Age.⁴⁵

Danish writers, artists, composers and architects in the nineteenth and twentieth centuries used the bronze lurs as national romantic symbols, particularly within the *Skønvirke* movement (circa 1890–1915), which is the Danish equivalent of the Jugendstil/Art Nouveau/Arts and Crafts styles. The bronze lurs and the Vikings were often paired in *Skønvirke* iconography and expressed in a very eclectic, national-Romantic style inspired by Japanese and Arabic art, the Italian Renaissance, the Nordic sagas, and Viking Age ornamentation. Symbolically and artistically, this was in step with the national Romantic notions of the time, and it seems to have been commonly accepted that art did not have to adhere to historical fact. Indeed, it has proved more or less impossible to eliminate the erroneous link between the Vikings and the bronze lurs.

45 Fétis: *Histoire générale de la musique*, pp. 449–469.

The Danish composer Carl Nielsen (1865–1931) unwittingly became involved in the above-mentioned dispute between Hammerich and Kroman. In his article from 1902, Kroman mentioned Carl Nielsen regarding the question of the compass of the lurs.⁴⁶ Nielsen was thus most likely aware of the anachronism of the link between the bronze lurs and the Vikings. Nevertheless, Nielsen's incidental music to the play *Hagbarth og Signe* (1910) for the Royal Theatre's open-air performances included two pairs of bronze lur copies.⁴⁷ It is possible that Nielsen used these spectacular instruments simply because they were indeed spectacular, because they would sound well and look good on an outdoor stage. Furthermore, the bronze lurs served to emphasise the play's national-Romantic setting as well as its naïve idealisation of the Viking Age.

Unlike other countries, Denmark does not have a national instrument as part of a living tradition. However, at a time of political and national crisis in the course of the nineteenth and twentieth centuries, the need for a national instrument arose, and hence the bronze lurs took on great significance as Danish national symbols.⁴⁸ The picture of Vikings playing the bronze lurs is a complete falsification of history, though it remains a popular tool of the tourist industry to this day.

⁴⁶ Kroman: Nogle Bemærkninger om Bronzelurerne i Nationalmusæet i København, pp. 102–104.

⁴⁷ Kirsten Flensborg Petersen: Music for Adam Oehlenschläger's Play *Hagbarth and Signe*, in: Carl Nielsen. *Incidental Music 1*, ed. by Niels Bo Foltmann, Lisbeth Ahlgren Jensen and Kirsten Flensborg Petersen, Copenhagen 2007 (Carl Nielsen Works, Series 1, Stage Music, Vol. 6), pp. XLIV–L.

⁴⁸ Lisbet Torp: Bliver man skotte af at spille på sækkepibe, in: *Musikkens tjenere. Instrument – forsker – musiker*, ed. by Mette Müller and Lisbet Torp, Copenhagen 1998 (Meddelelser fra Musikhistorisk Museum og Carl Claudius' Samling, Vol. 6), pp. 231–259, here pp. 245–249.

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TO PLAY OR NOT TO PLAY

Corrosion of Historic Brass Instruments

Romantic Brass Symposium 4 • Edited

by Adrian von Steiger, Daniel Allenbach

and Martin Skamletz

MUSIKFORSCHUNG DER
HOCHSCHULE DER KÜNSTE BERN

Edited by Martin Skamletz
and Thomas Gartmann

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