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Hidden in Hamburg: Uncovering the Long-lost Gamelan of the 1889 *Exposition Universelle*

In the last quarter of the nineteenth century, successive gamelan performances aroused lively reactions in Europe. This was notably the case at the 1879 Arnhem Exhibition of Dutch and Colonial Industry, where professional musicians and dancers from the court of Mangkunegaran (Central Java) astonished the Dutch audience with their sounds, movements, and costumes.[1] From then on, the Netherlands relied on gamelan and dance spectacles from the Dutch East Indies to present themselves to the world as a colonial empire and to compete in the arena of international trade.[2] At the 1883, 1889, 1893, and 1900 international expositions, gamelan performances were among the most talked about of the entire fairs, their impact lasting far beyond the months of the exhibits themselves.

This is especially true of the Paris 1889 *Exposition Universelle*, by far the most celebrated one. Spectators were forever captivated by four Javanese dancers who, allegedly belonging to the entourage of a sultan, would satisfy the exotic and erotic imaginary. And through Claude Debussy—who often attended the musical evenings at the *kampong javanais*, as did other important figures like Camille Saint-Saëns, Louis Laloy, and the then very young Maurice Ravel—the 1889 gamelan secured a privileged place in the history of music. However, contrary to what happened after the 1883 and 1893 exhibitions—whose gamelans are stored in the Rijksmuseum voor Volkenkunde in Leiden and the Field Museum of Natural History in Chicago, respectively—any trace of the 1889 gamelan was lost at the closing of the fair. Since then, there has been much speculation about which gamelan starred in Paris.

Attempts to answer this question have led to various ensembles being proposed as the protagonist of 1889. Among them is the Sari Oneng Parakan Salak, a *pelog* gamelan that lacks morphological similarities with the instruments depicted in the engravings of the time. Yet during the forty years that this zoomorphic gamelan was kept in the Museum Prabu Geusan Ulun in Sumedang—until December 2021—its explanatory plaque stated that 'in 1889 [it] joined the World's Fair within the framework of the promotion of tea in Paris'.[3] Another candidate has been the gamelan donated to the Conservatoire National de Musique in 1887. However, as Jean-Pierre Chazal already disclosed, this set of instruments was indeed displayed in 1889, but within the Dutch Pavilion at the Champ de Mars.[4]

[1] See Jan Willem Terwen, *Gamelan in the 19th-Century Netherlands: An Encounter Between East and West* (Utrecht: Koninklijke VNM, 2009), pp.94–102.

[2] See Marieke Bloembergen, *Colonial Spectacles: The Netherlands and the Dutch East Indies at the World Exhibitions, 1880–1931* (Singapore: Singapore University Press, 2006).

[3] 'Pada tahun 1889 ikut pameran Exposition Universelle dalam rangka promosi teh di Paris'.

[4] Jean-Pierre Chazal, '"Grand Succès' pour les exotiques": Retour sur les spectacles javanais de l'Exposition Universelle de Paris en 1889', *Archipel* 63 (2002), p.120.

As part of broader research aimed at shedding new light on the performance practices at the *kampong javanais*—which resulted in another article—we were also prompted to seek the 1889 gamelan.[5] We thus undertook a cross-study of different sources, focusing especially on Dutch and French newspapers that had largely gone unexamined. This effort ultimately led to the location of the gamelan itself and enabled us to carry out the first study of its physical features and tunings.

This article is an account of the discovery and an approach to the different aspects in which this gamelan contributes to a better understanding of the events of 1889. It also adds valuable data to enrich our knowledge of gamelan on the island of Java in the past, and in particular in the Sunda region, from where both the instruments and the musicians who performed in Paris came from.

THE SEARCH

While scholarly literature has often referenced it, information around this 1889 gamelan remains somewhat fragmentary. What we do know in some detail are the colonial dynamics in Sunda, where music held an important place in the daily life of the European elites.[6] In fact, various prominent figures of that exploitation, whose kinship ties fostered a fairly cohesive community, were directly involved in the practice and dissemination of gamelan. Adriaan W. Holle, administrator of the plantations in the Preanger Regencies and a *rebab* player himself, regularly joined local musicians to rehearse on the various gamelans he owned.[7] Eduard J. Kerkhoven and Gustav Mundt, relatives of Holle and responsible for the plantations of Sinagar and Parakan Salak respectively, appear in a report from 1890 as the individuals in charge of providing instruments and players for the Paris exhibition.[8] Sue Carole de Vale also referenced Gustav Mundt in her doctoral thesis, presenting him as ultimately responsible for the gamelans of the 1883, 1889, and 1893 fairs.[9] Lastly, Marieke Bloembergen, in her study *Colonial Spectacles*, meticulously documented the financing of the *kampong* and the composition of the organizing committee, highlighting Amsterdam businessman Martin Wolff as the principal promoter.[10]

However, many contradictions persisted about the gamelan itself, as well as various aspects of the shows that took place in Paris. This encouraged us to undertake an archival and newspaper search that went beyond what we already knew. And it didn't take long for the pieces to fall into place, especially when a new clue appeared around the figure of Gustav Mundt: although he worked in a Dutch colony and was part of the Holle clan, Mundt was actually German, specifically from Hamburg.

The Dutch press of the time does not hide this fact, but rather quite the opposite. And even in the French press the name of this city appears fleetingly: René de Pont-Jest does so in a very peculiar article—of special interest also for his insights on the dances at the *kampong*—where he mistakenly states that the gamelan 'came' from Hamburg.[11] The reality, we now know, was somewhat different: Hamburg was the final destination of the shipment, with Paris as an intermediate stage. A detailed examination of the Dutch and French press, corroborated by relevant German sources, has enabled us to trace the various stops the gamelan went through until it reached its current location.

In the two months prior to the exhibition, numerous Dutch-language newspapers, particularly those published in Java, provided extensive details about the organization and logistics of the *kampong*. This coverage is so thorough that it allows us to pinpoint the date of the gamelan's departure from the island. The instruments left for the *Exposition Universelle* on 9 March 1889, on the merchant ship

[5] See our forthcoming 'Sundanese Reverberances: Untangling Contradictions about the Gamelan Spectacle at the 1889 Paris World's Fair', in *Music & Letters* (DOI: 10.1093/ml/gcae079).

[6] Nina H. Lubis, *Kehidupan Kaum Ménak Priangan, 1800–1942* (Bandung: Pusat Informasi Kebudayaan Sunda, 1998); Sue Carole De Vale, 'A Sundanese Gamelan: A Gestalt Approach to Organology', PhD thesis, Northwestern University, 1977, pp.62–67; and Bloembergen (2006), pp.37–49.

[7] Karel A. van der Hucht, 'De gamelans van Parakan Salak', *Indonésie Naderbij* 71/72 (December 1989), pp.72–74, at p.73.

[8] Cores De Vries, *Nederland op de wereldtentoonstelling te Paris in 1889* (1890), cit. Bloembergen (2006), p.127.

[9] De Vale (1977), p.66. Sources support Mundt's involvement in the latter two dates; however, the gamelan associated with 1883 was actually in The Netherlands much earlier, having been exhibited in Paris in 1878, without Mundt having any connection to the matter.

[10] Bloembergen (2006), pp.120–32.

[11] René de Pont-Jest, 'Les Femmes Exotiques A l'Exposition', *Le Figaro. Supplément littéraire du Dimanche* (27 July 1889), p.118.

'Samarang' (Marcantile Navy Official no. 35244), setting sail from Tandjong Priok. Also on board were about 45 people from various regions of the archipelago, along with bamboo houses and all kind of objects to be displayed.[12] They reached Paris on 9 April, less than four weeks before the opening of the exhibition.

The negotiations, as already documented by Bloembergen, commenced in mid-December 1888. A committee dispatched to the East Indies, led by engineer Cores de Vries, embarked on a tour of the island to recruit personnel and gather material resources from different regions.[13] De Vries' himself reported that Gustav Mundt not only agreed to supply the workers for the *kampong javanais* but also undertook the provision of the gamelan.[14]

The Dutch press, however, informs us of another intention behind Mundt's granting of the instruments: he would loan it for the six-month exhibition before ultimately donating it to a museum in his native city of Hamburg.[15] According to contemporary sources, it was a high-quality and well-designed gamelan capable of accommodating more than 20 musicians.[16] Mundt's donation also included a set of *angklung*, which acted as a travelling orchestra during intermissions between performances,[17] and a collection of *wayang golek* puppets, mostly used as part of the scenery in Paris, as depicted in some engravings.[18]

While the gamelan served as an artistic and ethnographic artifact that met the exotic expectations of its time, broader commercial interests were at play. Gustav Mundt, of German descent but connected to families of administrators—including his uncle Herman W. Holle, fundamental figure in the patriarchal system of plantations—was directly involved in the production of coffee and tea, which were major sources of income for the Dutch colonies. In 1885, Mundt became president of the Sokaboemische Landbouw Vereening, a society that he would lead till 1903.[19] Indeed, the company he managed—the Cultuur-Maatschappij Parakan Salak—occupied a pivotal role in supporting various world exhibitions: not only that of 1889, but also those of 1883 and 1893.

After six months of uninterrupted work, on 22 October 1889, the *kampong javanais* was dismantled and left deserted, according to *L'Univers illustré*.[20] Men, women, and children departed from the Gare de Lyon to Genoa, where they would board the Princess Amalia bound for Batavia.[21] But the gamelan, contrary to the beliefs of the journalist from the French weekly, would not return to Java with its musicians. Instead, along with the collection of *wayang golek* and some theatrical props, it would journey to the Hanseatic city.

Neither the Dutch nor the French press records the specific endpoint, but it couldn't have been other than the then-called Museum für Völkerkunde, whose history had begun in 1840 in the form of a small ethnographical collection within the Hamburg City Library. Ten years prior to the exhibition, the museum had relocated to new premises and was experiencing significant growth in popularity. In the early decades of the twentieth century, it was endowed with the building that still serves as its headquarters today and, in 2018, as part of a profound transformation process, it was renamed as MARKK: Museum am Rothenbaum — Kulturen und Künste der Welt. Indeed, its archives document Gustav Mundt's contribution of a total of 65 objects in December 1889.[22] An annual report of the

[12] 'Nederlandsch-Indië', *Java Bode* (9 March 1889), p.2; 'Nederlandsch Indië', *Bataviaasch niewsblad* (9 March 1889), p.1.

[13] Bloembergen (2006), pp.127–28.

[14] Cores De Vries, *Nederland op de wereldtentoonstelling te Paris in 1889* (1890), pp.82–85.

[15] 'Op en om de Tentoonstelling', *Algemeen Handelsblad* (26 May 1889), p.2; 'Brieven uit Parijs', *Bataviaasch Handelsblad* (6 July 1889), p.6.

[16] 'Uit Parijs', *Algemeen Handelsblad* (26 April 1889), p.6; 'De Wereld-Tentoonstelling te Parijs', *Vlaardingsche Courant* (13 July 1889), p.3; and *La Dépêche de Brest* (16 April 1889), p.2.

[17] 'Op en om de Tentoonstelling' (26 May 1889), p.2.

[18] *La Caricature* (20 June 1889), p.195; Lucien Biart, 'Les danseuses javanaises', *Mes promenades à travers l'Exposition. Souvenir de 1889* (Paris: Herruyer, 1889), hors texte, p.32.

[19] De Vale (1977), pp.62–63.

[20] 'Chronique de l'Exposition', *L'Univers illustré. Journal hebdomadaire* (26 October 1889), pp.679–682, at p.679.

[21] 'In den Kampong', *Algemeen Handelsblad* (24 October 1889), p.1; 'Vertrek der Javanen', *Bataviaasch Handelsblad* (23 November 1889), p.10.

[22] *Auszug aus der Sammlungs – Datenbank des Museums am Rothenbaum Hamburg MARKK*.

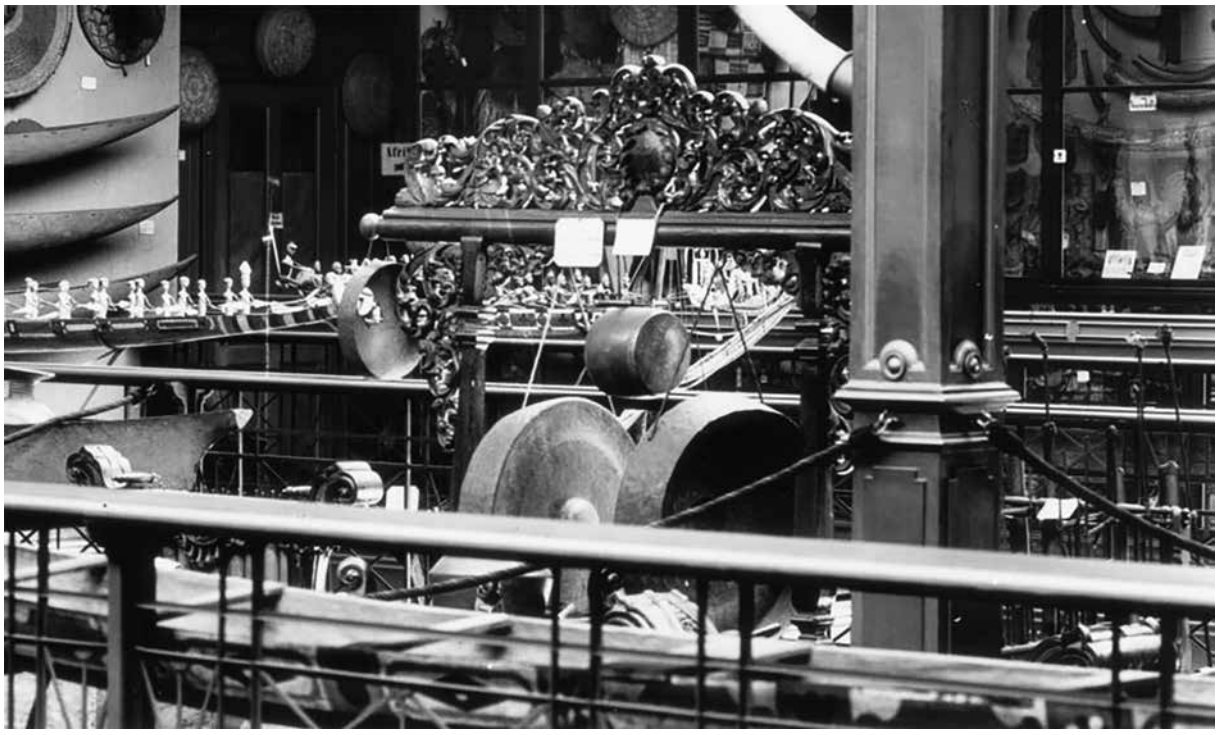

Figure 2. *Display of the collection objects in the Naturhistorisches Museum, c1905. Some instruments from Mundt's gamelan can be clearly recognized. Photo by Museum am Rothenbaum (MARKK), Hamburg (detail).*

museum further confirms this acquisition, which was mediated by Justus Brinckmann, director of the Museum für Kunst und Gewerbe in Hamburg since 1874.[23]

No mention is made in these documents of the connection with the Paris World's Fair, and the instruments are not part of the permanent collection today. They are neither on view nor detailed in any of the museum's publications, and only photographs of some of the items are available in its databases. Everything seemed to fit, but an in-person verification was essential. On 16 January 2024—warmly welcomed by Dr Jeanette Kokott, curator at the museum, and Anke Sievers, responsible for handling and storage—we were able to visit the depot of the MARKK. There, we could verify that our deduction was correct. Among the many instruments displayed in front of us, there was the *bonang* we were in search of—the instrument that the Parisian sources drew in more detail. There was no longer any doubt: its legs were identical to those of the *bonang* depicted in one of the most often cited images of the gamelan—the black and white engraving in *Livre d'or de l'Exposition* entitled 'Le joueur de bona'. Just then could we witness that the wooden frame was, in fact… red (see Figure 13 in the colour section).

MUNDT'S COLLECTION AT THE MUSEUM AM ROTHENBAUM

No one at the MARKK knew that these instruments carried such a prestigious history. The museum's archives, however, contain precious documentation that future research will undoubtedly expand upon. We were fortunate to access this information, once again thanks to the assistance of Dr Jeanette Kokott.

Firstly, the inventory cards, dating from 1905 onwards, where the objects donated by Mundt were recorded with consecutive numbers, from A 2423 to A 2488. Although not all the cards have survived, those that remain are highly suggestive, providing significant information. Crafted by female employees, these cards are made of stiff paper and feature detailed descriptions.[24] They occasionally include splendid drawings that are crucial in linking the instruments with the diverse beaters to play them (see Figure 1 in the colour section).

Through the study of the museum's history and publications, we were also able to verify that the gamelan did not spend these 135 years away

[23] C. W. Lüders, 'Museum für Völkerkunde', *Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten, VII* (1890), p.LXXXII.

[24] Rahel Wille, *Ausgezeichnet: Künstlerinnen des Inventars* (Hamburg: Museum für Völkerlunde, 2019), p.13.

Figure 3. *'Schattenspiele der Völker', Die ersten 112 Jahre: Das Museum für Völkerkunde Hamburg (Hamburg: Museum für Völkerlunde, 2004), p.139. Photo by Museum am Rothenbaum (MARKK), Hamburg (detail).*

from public exhibition. During the time that the museum temporarily occupied the upper floor of the Naturhistorisches Museum (between 1891 and 1912), it was open to public viewing. In fact, some of the instruments are featured in a high-quality photo from those years (see Figure 2).

This was not the gamelan's last time in the spotlight. In 1946—just one year after the end of WWII, which was extremely tough for the city—the gamelan was displayed in an exhibition titled 'Schattenspiele der Völker', already in the current building of the Museum am Rothenbaum (Figure 3). Alongside two male mannequins wearing Madurese costumes and masks,[25] some *wayang kulit* and a few *angklung*, the exhibit showcased at least 13 instruments from Mundt's gamelan. The first *bonang* visible on the left side is the one labelled with the code A 2428 (whose rack is currently missing); further away, the *bonang* A 2427, which is preserved complete, can be seen.

We have not found evidence of subsequent exhibitions or other activities involving the gamelan. However, several instruments show signs of restoration and unusual interventions, which could be related to practical workshops held at some point in time, as will be discussed below. Occasionally, the inventory cards feature some pen touch-ups, and the current museum database includes a review of all cataloguing, carried out undoubtedly in later periods. Nevertheless, it is not impossible that at the end of the 1946 temporary exhibition, the gamelan was stored away, remaining hidden to this day.

In June 2024, Mundt's collection at the MARKK comprises a gamelan *salendro*, seven *wayang golek* puppets, five *wayang wong* theatrical props, and a lighter. The gamelan itself consists of two *peking*, three *saron*, two *demung*, one *gambang*, one *gambang gangsa*, one *gender*, three *bonang* (two of them without a rack), one *kenong*, one *kendang*, one small *bedhug*, and a large rack with two *goong*.[26] Until recently, a *rebab* also donated by Mundt—likely the one used in Paris—was part of the MARKK's holdings, though it is currently untraceable in the storehouse. Two other instruments, at least 32 more *wayang* puppets, and some other props recorded in the initial catalogue have yet to be located.

Parisian iconography relating to Mundt's gamelan is scarce and problematic. While numerous outdoor photographs taken at the *kampong* during daylight

[25] Personal communication by Suji Bagiyono (25 January 2024). These items do not belong to the Mundt collection.

[26] While it is hard to determine the geographical area where the gamelan was built, we have opted for using Sundanese terms to refer to the instruments (and to the musical concepts) because the players came from Sunda. Yet for instruments without a modern Sundanese equivalent we use Javanese or more generic terms.

Figure 4a (left): *bonang A 2427, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg;* 4b (right): *'Le joueur de bona'. Lucien Huard, Livre d'or de l'Exposition (Paris: L. Boulanger, 1889), p.299.*

hours provide a precise idea of what the dancers and their costumes looked like, the poorly lit stage where the daily performances took place made it difficult to photograph the gamelan. Moreover, only a few artists portrayed the instruments, the attention falling mostly on the dancers. The extant engravings, however, depict morphological features with such precision that they enable us to identify even the smallest details of the wood carvings. This is epitomized by the finely portrayed curved legs of the *bonang* in the black and white engraving in *Livre d'or de l'Exposition* (Figure 4b), which unmistakably corresponds to the instrument catalogued as A 2427 (Figure 4a).

Another instrument that can be identified is the *kendang* A 2442 (Figure 5a), which bears a noteworthy resemblance to H. Lanos' drawing in *La Caricature* from 22 June 1889 (Figure 5b). *Le Livre*

Figure 5a (left): *kendang A 2442, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg;* 5b (right): *Detail of 'Gamel…ang', La Caricature (22 June 1889), p.195.*

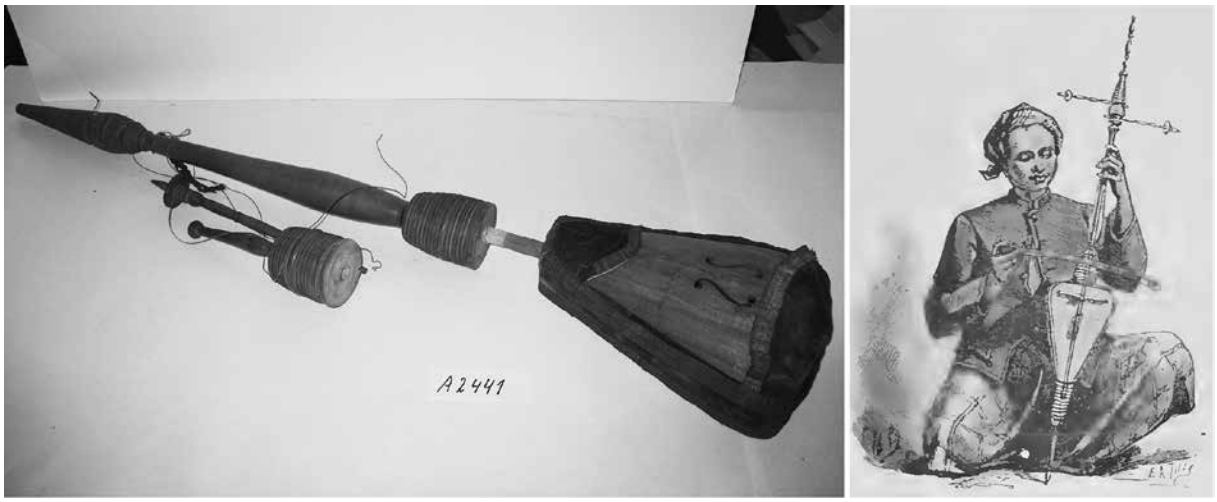

Figure 6a (left): *rebab A 2449, Mundt collection. Photo by Museum am Rothenbaum (MARKK), Hamburg*; 6b (right): *'Le joueur de rebab'. Huard (1889), p.226.*

Figure 7a (left): *gada wesi A 2485, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg;* 7b (right): *Sariem dressed as Menakjingga, in the kampong javanais of 1889, holding the gada wesi. Photo courtesy of Pura Mangkunegaran, Surakarta (detail).*

d'Or de L'Exposition also offers us a very detailed gravure of the *rebab* (Figure 6b), which shows striking similarities to the currently missing *rebab* (A 2441) as photographed in the most recent version of the catalogue of the museum (Figure 6a).

Not only musical instruments at the MARKK match with 1889 exhibition's iconography. Indeed, one of the theatrical properties, catalogued as A 2485 (Figure 7a), confirms that this gamelan was part of a larger show in Paris, namely, the dance of four Javanese women. The object, representing a 60cm long metal weapon, belongs to the *wayang* costumes contributed by Prince Mangkunegara V to the exposition. Traditionally called *gada wesi*, it serves as a symbol of power for certain characters such as Menakjingga from the Darmawulan legend (Figure 7b).

Although these objects are undoubtedly those documented in Paris, it is equally evident that Mundt's gamelan is substantially larger than what can be inferred from those sources. It is impossible to know how many pieces the gamelan comprised when it departed from the plantations of Parakan Salak. But what seems unquestionable is that not all of the instruments sent by Mundt were used—or even displayed—during the exposition. The sources of the time diverge on some important details, but Julien Tiersot, who made transcriptions of each of the instruments involved in the show, only records, in addition to the *angklung*, two *bonang*, a wooden *gambang*, a *rebab*, one *saron*, a variety of gongs, diverse drums, and a *kecrek*.[27] Other sources also mention two wind instruments (*suling* and *tarumpet*), which, unfortunately, were not part of Mundt's donation.[28]

We can only advance hypotheses about the reasons for this reduction in the number of instruments. One possibility could have been the lack of space, since only the rear of the stage was available for the musicians, the central area being dedicated to the dancers. Perhaps the bamboo platform itself was not strong enough to support the weight of the instruments—some of them especially heavy—nor could it have been easy to bring them up onto the stage. In fact, instead of the big rack with its two *goong*, the small one with five hanging *kempul* that had been played during the 1883 exhibition was again used in 1889, as will be discussed below.

Furthermore, while in 1879 the Arnhem Colonial Exhibition had hosted a gamelan and professional musicians from the court of Mangkunegara IV—dressed in the corresponding etiquette and performing an extensive and defined repertoire—the musicians in 1889 were the very workers of the Sundanese plantations. Thus, it is not clear that they would have been able to get the best out of all those instruments. In fact, a close examination of Tiersot's transcriptions reveals that the roles assigned to each instrument, especially those requiring greater virtuosity—such as the *gambang*—do not align with the traditional practices of the time.[29] Moreover, as will be shown later, it seems that some instruments were already damaged in 1889, making it plausible that the musicians themselves had decided to discard them.[30]

Yet another reason for the partial use of the gamelan could have been Gustav Mundt's reluctance to put his instruments at risk, opting to expose only a strictly necessary part of them. The concerns he may have had are implicit in De Vries' report dating from 27 September, where he reassuringly conveys to Mundt how every morning 'your people […] take care of your gamelan'.[31]

SHAPE, FEATURES, AND TUNING

The cases (*ancak*) of the keyed instruments are carved from single pieces of wood and feature scrolled sideboards (*gelung*) that are raised above the keys. The polychrome hand-carved sculptures have dark brown as the ground colour, seconded by dark red. Golden touches highlight the reliefs on the front part of the instruments (those facing the audience) and on the upper parts of each *gelung* (see Figure 23 in the colour section). Avoiding any animal figure, the artistic theme is based on lotus flowers blooming among curling tailed tendrils. In fact, this is a recurrent pattern in many other gamelans

[27] Julien Tiersot, *Musiques pittoresques: Promenades musicales à l´Exposition de 1889* (Paris: Fischbacher, 1889), pp.32 and 40.

[28] Lucien Huard, *Livre d'or de l'Exposition* (Paris: L. Boulanger, 1889), hors-texte after p.591; V. Morans 'À travers l'Exposition. Le Kampong Javanais', *Journal des Voyages* (1 July 1889), pp.71–73, at p.72; and Judith Gautier, 'Les Danseuses Javanaises', *Le 'Rappel' à l'Exposition* (27 May 1889), p.1.

[29] For a detailed study of the programme and its scenic specificities, including a comprehensive analysis of the transcriptions made *in situ*—particularly those included by Julien Tiersot in his *Musiques pittoresques*—see our forthcoming article 'Sundanese Reverberances'.

[30] Observation made by Jean-Pierre Chazal (13 June 2024) at the MARKK.

[31] Cores De Vries, *Bataviaasch Handelblad* (27 September 1889), p.4: 'uw volkje […] om uw gamelan te verzorgen'.

and carved furniture across the archipelago, already found in the reliefs of Prambanan and Penataran, archaeological sites in Central and East Java dating back to the tenth century.[32] The *gelung* of the keyed instruments show another traditional motif, the triangular *dumpal*—common in figurative arts and in *batik* textile design—filled with more lotus-like flowers. This embellished triangle is also an essential feature of the *gunungan* or *kayon*, symbolic depiction of the Tree of Life in *wayang* representations.[33]

Given that all these patterns had been widespread throughout the Indonesian archipelago since ancient times, it is difficult to infer where the gamelan was built. As Sam Quigley has pointed out, shapes and decoration were not linked yet to any specific geography during the nineteenth century.[34] This is a point to be made since, at that time, there were relatively few gong smiths and wood carvers in the island of Java. Primarily located in north coastal Java, these artisans supplied *slendro* gamelans to other provinces, particularly areas where Javanese labourers were employed by agricultural companies.[35] Thomas Raffles speaks of Grésik as the principal centre for gong manufacturing, from which gamelan were exported in the early nineteenth century;[36] Grésik was, in fact, a hub from where Central Javanese courts would search for materials and human skills.[37] Other coastal regions such as Bogor (West Java) and Semarang were also outstanding metallurgic sites,[38] Jepara being renowned for its wood carving.[39] It is true, however, that the decoration and the shape of the keyed-instruments of Mundt's gamelan bear a significant resemblance to those of other Javanese ensembles from Yogyakarta, including the one depicted by Raffles in 1817.[40] The raised scrolls, in particular, were at the beginning of the twentieth century a distinctive Yogyanese feature, according to Jaap Kunst.[41] But the *gelungan* of Mundt's gamelan are longer and more elevated, in line with those of the region of Cirebon.[42]

Another general feature of Mundt's gamelan is the presence of individual resonators for each key (*wilah*) in the *saron*-family instruments (Figure 8). However, in the A 2431, the A 2432 and the A 2435, the small wooden panels that once divided the common chamber into individual sections have been removed, resulting in a shared resonator. Individual chambers are rarely seen nowadays but can be found in many old ensembles such as Sari Oneng Mataram and Sanglir (both preserved at the Museum Prabu Geusan Ulun in Sumedang, West Java) or in the Raffles gamelan at Claydon House.[43] This feature is also evident in the gamelan displayed at the 1878 Paris Exhibition (currently stored in the depot of the Wereldmuseum),[44] as well as in the one that Mundt himself donated for the 1893 World's Columbian Exhibition.[45]

[32] See, for instance, 'Fragment (lotusvoet) gelegen ten zuiden van de torentempel van Tjandi Singosari nabij Malang' (KITLV 37918), which shows strikingly similar floral patterns as those seen in the front part of any of Mundt's keyed instruments.

[33] See a similar filled triangular shape of the *kayon* in 'Gunungan or kayon [=levensboom]: requisiet by wajang koelit voorstelling' (KITLV 27762).

[34] Sam Quigley, 'The Raffles Gamelan at Claydon House', *Journal of the American Musical Instrument Society* 22 (1996), pp.5–41.

[35] Jaap Kunst, *Music in Java: Its History, its Theory and its Technique* (The Hague: Martinus Nijhoff, 1973), p.21.

[36] Thomas Raffles, *The History of Java* (London: John Murray, 1817), vol.1, p.527.

[37] Peter Carey, 'Civilization on Loan: The Making of an Upstart Polity: Mataram and Its Successors, 1600-1830', *Modern Asian Studies* 31/3 (July 1997), pp.711–34, at p.719.

[38] Sue Carole De Vale, 'Gong Forging in Bogor, West Java: The Process through Its Soundscape', *Pacific Review of Ethnomusicology* 5 (1989), pp.89–123; Edward Jacobson and J. H. van Hasselt 'The Manufacture of Gongs in Semarang', trans. Andrew Toth, *Indonesia* 19 (1975), pp.127–52.

[39] Carey (1997), p.719.

[40] See the *saron barung* RV–2929–22 from Yogyakarta stored in the reserves of the Wereldmuseum; see also the illustration of a gamelan from Yogyakarta in Raffles (1817), p.470.

[41] Kunst (1973), p.164.

[42] Several authoritative opinions collected for this article (from Pak Endo Suanda, Pak Rusdiyantoro, and Pak Panggiyo) concurred on this point.

[43] Quigley (1996), p.26. We want to thank NR Fetty Soemawilaga for allowing the inspection of the gamelans at the Museum Prabu Geusan Ulun.

[44] See *saron* RV–300–553 belonging to the Wereldmuseum collection.

[45] De Vale (1977), p.32.

Figure 8. *Individual resonators in the peking A 2430, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

We can't determine when Mundt's gamelan was built, although various clues suggest it was not constructed specifically for the 1889 exhibition. What seems indisputable is that it was not born to become a museum piece, unlike Raffles' gamelan.[46] Roger Vetter emphasized that gamelan ensembles, in adapting to the artistic life of the moment (and without necessarily violating a supposed reverence for tradition), undergo restorations, modifications, and retuning.[47] The current appearance of Mundt's gamelan reflects precisely this dynamic. The tape added to one of the beaters (Figure 26b), the white paint used to number the *wilah* (Figure 20), the current position of the *wilah* themselves, or the replacement of the pillows over which the *wilah* rest (the *bantalan*) are just a few examples of recent manipulations. Additionally, a total of four *wilah* are missing and have been replaced by wooden ones. But it also suffered many other modifications in previous times, as seen in the variety of pins used to pierce the *wilah* or in the scraps on their undersides. Moreover, many of the instruments that were not involved in the 1889 performances also show clear signs of usage. The *wilah* themselves show degradation in their middle section and the undersides of some *penclon* (horizontal gongs) still show traces of various substances intentionally applied into their bosses (Figure 12b).

Among the first actions we undertook upon locating Mundt's gamelan was measuring its tuning. The task was not easy though, since some keys of one *peking* (A 2430), one *demung* (A 2434) and one *saron* (A 2431) turned out to have been swapped. In the case of the *saron*, this was visually obvious: the keys were disproportionately sized in relation to each other, the first two being much larger than the rest. The mistaken placement of the keys had required them to be pierced again, causing new holes in the wood and sometimes splitting it. This repositioning of the pins prevented us from reinserting the original keys into their correct spots.

Thus, the recording of the frequencies had to be done without reassembling the keys, the wrong order giving rise to absurd sequences of pitches. Later, editing the separate pitches enabled us to virtually relocate each key to its correct position in sequences

[46] Sam Quigley (1996, p.14) argues that the gamelan, commissioned by Raffles, has rarely been played.

[47] Roger Vetter, 'More than Meets the Eye and Ear: Gamelans and Their Meaning in a Central Javanese Palace', *Asian Music* 32/2 (Spring-Summer 2001), pp.41–92.

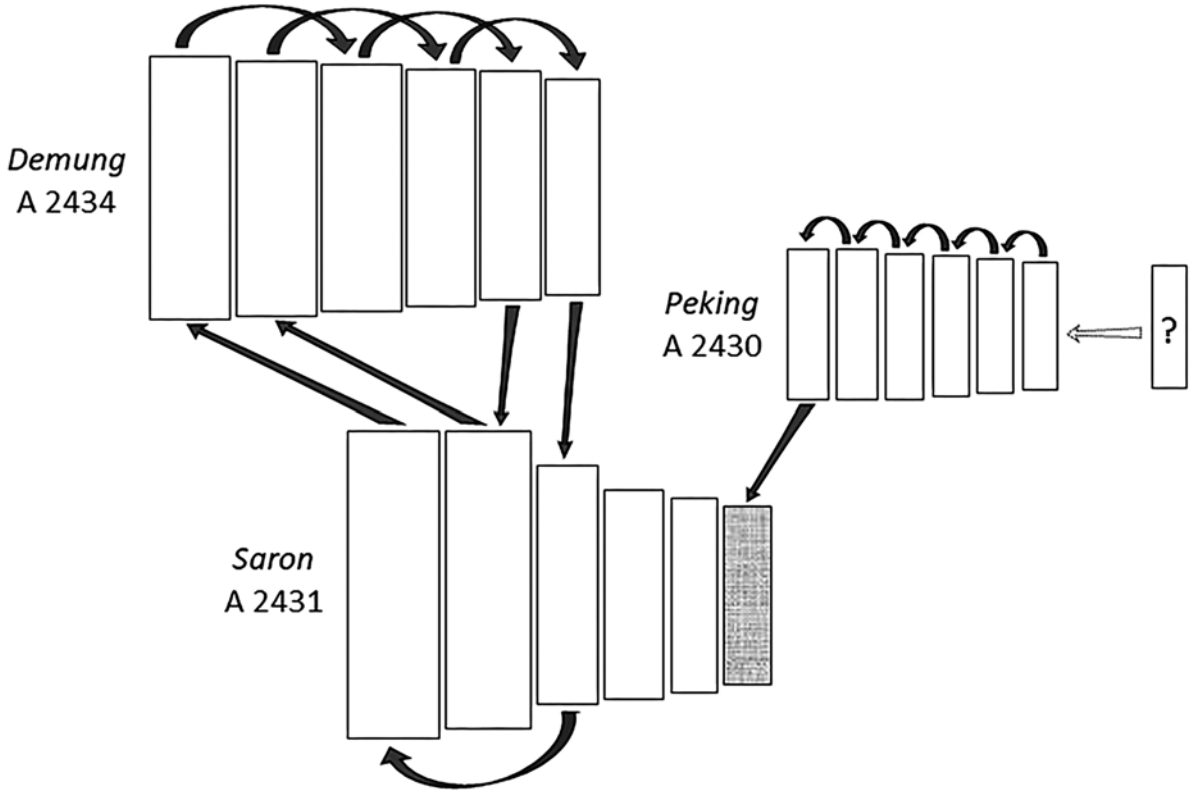

Figure 9. *Virtual repositioning of keys among A 2434, A 2431, and A 2430. The last key of A 2431 is a wooden one. Thus, the sixth key of A 2430 is missing.*

that finally made sense (Figure 9). The origin of the mispositioning stemmed from the fact that the *demung* A 2434 had been assembled in such a way that, although the pitches of a *salendro* scale were displayed in correct succession, the starting note was the third of the scale, rather than the first. The virtual repositioning process also revealed that one of the missing keys was the last of the *peking* A 2430 — not the last of the *saron* A 2431, where a wooden one had filled the gap.

Most of Mundt's instruments still adhere closely to the scheme of a *salendro* tuning system. In fact, comprehensive measurements carried out during a second visit to the MARKK in June 2024—this time together with experts Jean-Pierre Chazal and András Varsányi—have revealed that the gamelan used to be finely tuned.[48] However, a few instruments show significant deviations from *salendro* (Tables 1 and 2). This could be due to factors such an excessive force when striking the keys, extreme environmental changes (both in humidity and temperature), or simply the aging of the bronze. Apart from occasional irregularities in some *wilah* and *penclon*, there is another peculiarity: one of the two *demung* (A 2434) is tuned much higher—only up to 3Hz in the two lower notes but more than 20Hz in the four higher ones—compared to its counterpart (A 2435). This represents a substantial divergence, especially when compared to the variation seen within pairs of *demung* in other gamelans, which mostly diverge by up to 5Hz.[49] Interestingly, a similar deviation happens in one of the paired mid-register *saron*: the frequencies of the A 2432 are significantly higher. It is challenging to determine whether such discrepancies result from deterioration over time or from aesthetic decisions.

[48] Observation made by András Varsányi (13 June 2024) at the MARKK. For the recordings we used a uTestMic by Studio Six Digital microphone. The measurements were done by Varsányi with Audacity and Sengpielaudio. Our many thanks to him for his invaluable and friendly help.

[49] Variations observed in the 30 *slendro* gamelans studied by Wasisto Surjodiningrat et al., in *Tone Measurements of Outstanding Javanese Gamelans in Yogyakarta and Surakarta* (Yogyakarta: Gadjah Mada University Press, 1972), pp.37–45.

Table 1. Frequencies (Hz) of each instrument. Asterisks indicate the virtually relocated keys, according to Figure 9.

	G# 51.9	D# 155.5	F# 184.9	G# 207.6	A# 233	C# 277.1	D# 311.1	F# 369.9	G# 415.3	A# 466	C# 554.3	D# 587.3	F# 739.9	G# 830.6	B 987.7	C# 1108.7	D# 244	F 1396.9	G 1567.9	A# 1864.6	C 2093
Gambang A 2438		159	186	212	245	282	317	366	422	470	…	630	716	840	972	1112	1250				
Gambang gangsa A 2436		161	182	209	242	272	309	359	409	469	538	618	713	811	…	…	…				
Gender A 2437		156	180	208	235	271	308	356	411	469	537										
Demung A 2434						277*	311*	355*	410*	471*	537*										
Demung A 2435						270	318	379	438	494	562										
Saron A 2431											537*	622*	711*	816	1017	1110*					
Saron A 2432											578	658	765	863	945	1103					
Saron A 2433											536	619	711	816	947	1115					
Peking A 2429																1074	1256	1460	1649	1905	2169
Peking A 2430																1075*	1251*	1457*	1656*	1934*	…
Bonang panemb. A 2426		154	175	209	238	270	316	354	419	470	548										
Bonang barung A 2427							318	364	420	489	549	633	714	818	959	1098					
Bonang panerus A 2428												615	694	816	938	1087	1256	1466	1663	1923	2169
Kenong A 2439									434												
Goong A 2424a	56																				
Goong A 2424b	52																				
	A# 58.2	**E 164.8**	**G 195.9**	**A 220**	**B 246.9**	**D 293.6**	**E 329**	**G 391.9**	**A 440**	**B 493.8**	**D 587.3**	**E 659.2**	**G 783.9**	**A 880**	**C 1046.5**	**D 1174.6**	**E 1318.5**	**F# 1479.9**	**G# 1661.2**	**B 1975.5**	**C# 2217.4**

Table 2. Measurements of the intervals (cents) in each instrument.
Calculations made by András Varsányi. Asterisks indicate the virtually relocated keys, according to Figure 9.

Sundanese pitch name →	**singgul**	**bem**	**panelu**	**loloran**	**barang**	**singgul**	**bem**	**panelu**	**loloran**	**barang**	**singgul**	**bem**	**panelu**	**loloran**	**barang**	**singgul**	**bem**	**panelu**	**loloran**	**barang**
Javanese notation →	**2**	**3**	**5**	**6**	**1**	**2**	**3**	**5**	**6**	**1**	**2**	**3**	**5**	**6**	**1**	**2**	**3**	**5**	**6**	**1**
Gambang A 2438	271	227	250	244	202	249	247	186	507		222	277	252	233	203					
Gambang gangsa A 2436	212	239	254	202	231	260	226	236	238	240	247	224	…	…	…					
Gender A 2437	248	250	211	246	220	253	247	230	235											
Demung A 2434					200*	224*	256*	232*	222*											
Demung A 2435					283	304	251	208	224											
Saron A 2431										258*	229*	235*	384	151*						
Saron A 2432										225	261	208	157	268						
Saron A 2433										249	240	238	258	283						
Peking A 2429															271	260	211	250	225	
Peking A 2430															265*	255*	230*	268*	…	
Bonang panembung A 2426	221	299	227	219	272	197	296	199	266											
Bonang barung A 2427						234	247	264	200	247	308	236	274	235						
Bonang panerus A 2428											209	280	241	256	250	268	218	251	209	

THE INSTRUMENTS ONE BY ONE

Gayor A 2423 and two *goong* A 2424

The gong rack (*gayor*) of Mundt's gamelan is currently located in a different building, isolated from the rest of the ensemble, even from its own two *goong*. It is ornamented with tendril gridwork and fruits, painted in red and gold, like the other casework. It features a gilded inscription in Javanese *hanacaraka* on the central part of the finial of the crossbar (Figure 10d). Unfortunately, the faded paint renders most of it illegible. Still, the bottom line seems to read 'Udan Mas',[50] very likely the name attributed to the gamelan.[51]

As for the two *goong*, they are almost the same size (see Table 3) and are remarkably dimpled with multiple hammer blows, their surfaces still fire-blackened. Only the bosses (*pencu*) have been filed showing clear scrapes and a more yellowish coloration. Varsányi observes that both *goong* are considerably thinner than traditional Javanese *gong ageng*, featuring a notably narrow edge (*bau*) and a straight surface — contrary to modern gongs, which have a much more curved and higher one; the *pencu* are hemispheric, resembling that of the modern *kempul*.[52] The *goong* A 2424a has a clear sound and a stable beating (*ombak*) of 2–3 times per second. The *goong* A 2424b appears a bit deteriorated: its underside is beginning to flake, resulting in a buzzing sound and a less audible *ombak* of 3–4 beats per second.[53]

Figure 10a (left): *gong rack (gayor) A 2423*; 10b (centre top): *goong A 2424a*; 10c (centre bottom): *goong A 2424b*; 10d (right): *inscription on the finial of the gong rack. Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Table 3. Measurements of the two *goong* A 2424a and A 2424b, and their beater			
Diameter of the goong	81cm / 81cm	Height of the goong	16cm / 15.5cm
Diameter of the pencu	16cm / 15.5cm	Length of the beater	31cm

[50] Our sincere thanks to Ibu Surya Hema for this clarification (4 March 2024) and for her assistance in finding and decoding the sources at the Arsip Rekso Pustoko, Pura Mangkunegaran (Surakarta).

[51] Meaning 'gold rain', 'Udan Mas' is also a recurring title in both Sundanese and Javanese repertoires.

[52] E-mail communication (23 June 2024).

[53] Measurement of the *ombak* of both *goong* made by András Varsányi (13 June 2024) at the MARKK.

Bonang panembung A 2426

Table 4. Measurements of the *bonang* A 2426	
Diameter/ height of lowest penclon	21cm / 14cm
Diameter/ height of highest penclon	13cm / 20cm

Figure 11. *Ten penclon belonging to the bonang panembung A 2426, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Currently, the instrument consists of two rows of five *penclon*, each row covering an incomplete octave. The rack of the instrument has been lost, although the original catalogue indicates that it accompanied the *penclon* when the gamelan entered the museum. Labelled as *djenlong* in the 1889 catalogue, it is the largest and lowest-pitched of the three *bonang* in Mundt's collection. While mid- and high-register *bonang* can be found in any gamelan—called *bonang barung* and *bonang panerus* in Java, or *bonang* and *rincik* in Sunda—Kunst had observed that this lowest *bonang*, called *bonang panembung* in Java, is an instrument confined to the Yogyakarta region.[54]

According to its register, this would be the *bonang grave* referred to by Tiersot in his *Musiques pittoresques*, part of a two-member family he calls *bonang-ageng*.[55] Although the frame is not visible in the engravings of the time, the size and type of *penclon* depicted by Louis Trinquier in the *Revue de l'Exposition Universelle de 1889* further supports the idea that this is one of the instruments that enlivened the evenings at the *kampong javanais*.[56]

Bonang barung A 2427

This mid-register *bonang* has a characteristic *ancak*, carefully carved yet extremely simple (Figure 12a and Figure 13 in the colour section). The orthogonal lines of the rectangle are supported by legs reminiscent of the Louis XV style, in line with the eclectic mix typical of the so-called Napoleon III furniture style. Unlike most *bonang*, it lacks the end boards that usually surround two or even three sides of the frame. The instrument is in good condition, although the gold paint has largely faded.

The ten *penclon* are scraped and polished throughout, showing other modifications that aren't purely functional and directly affect the sound properties: remnants of paste—apparently slaked lime—are still stuck inside the boss of some of them (Figure 12b), a technique used to selectively lower the pitch.[57] This *bonang* is one of the instruments that still exhibits excellent tuning.[58] Its frequencies are quite in accordance with the A 2426 (Table 1), including the common notes—the highest row of A 2426 and the lowest of A 2427—an important point given that both *bonang* played together in 1889.

This is the highest of those two *bonang* and, according to Tiersot's report, the one with a principal role in the ensemble.[59] His transcriptions also provide valuable insight into the musical procedures

Table 5. Measurements of the *bonang* A 2427			
Overall length	135cm	Diameter of lowest / highest penclon	23cm / 19cm
Overall width	64cm	Height of lowest / highest penclon	10cm / 11cm

[54] Kunst (1973), p.155.

[55] Tiersot (1889), p.32.

[56] 'Le village javanais', *Revue de l'Exposition Universelle de 1889* (Paris: F. G. Dumas & L. De Fourcaud, 1889), vol.1, pp.105–14, at p.108. De Vale (1989), p.106; Jacobson and van Hasselt (1975), p.144; and Kunst (1973), p.155.

[57] De Vale (1989), p.106; Jacobson and van Hasselt (1975), p.144; and Kunst (1973), p.155.

[58] Personal communications by Mas Dani Yanuar (7 March 2024), Pak Bambang Sunarto (15 July 2024) and Pak Panggiyo (6 March 2024) in Surakarta. Thanks to all of them for always being available to answer the many questions, whether in person or virtually.

[59] Tiersot (1889), p.32.

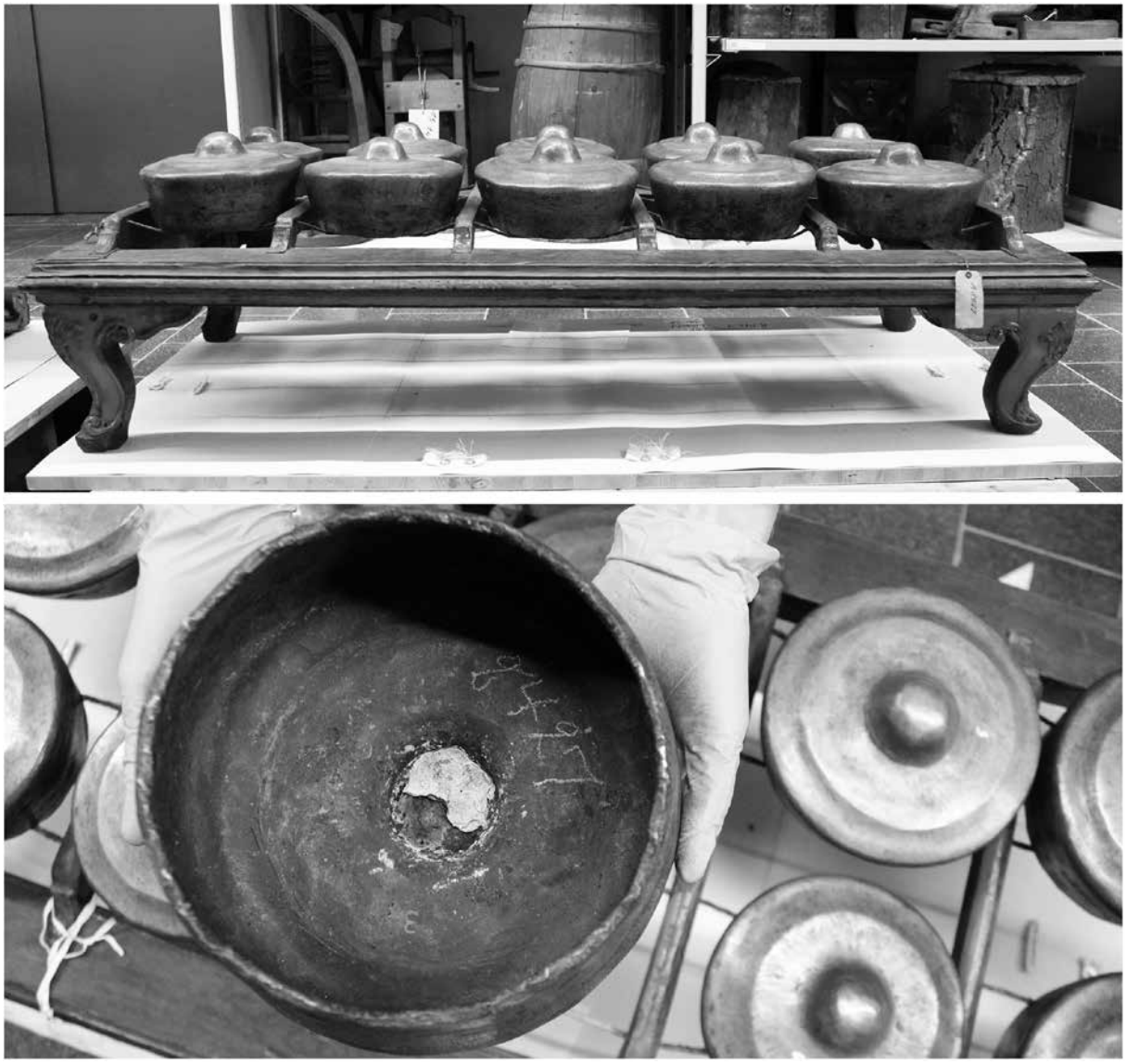

Figure 12a (top): *bonang barung A 2427*; 12b (bottom): *undersides of one penclon of A 2427, exhibiting residues of paste. Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

it carried out: during the slow sections of the pieces, this 'high *bonang*' played the main melody in unison with the *rebab*, while in the fast sections, it shifted to a 'counterpoint' in semiquaver figurations.[60]

Bonang panerus / *rincik* A 2428

As is the case with the A 2426, only the sounding elements of this instrument remain (Figure 14). It is difficult to ensure when the rack was lost, but it must have been after 1946, since it was displayed during the 'Schattenspiele der Völker' exhibition at the Museum am Rothenbaum (see Figure 3). The *penclon* are tuned one octave higher than the A 2427, thus being the highest of the three *bonang*. The bottom row of this A 2428, which coincide in register with the highest of the A 2427, is significantly lower in pitch.

It appears unlikely that this instrument—called *rincik* in Sunda—was used in the 1889 *Exposition Universelle* since, as seen above, Tiersot only recounted and transcribed two *bonang*, and they featured a lower register. Yet it also underwent modifications such as the application of paste inside the bosses—albeit to a lesser extent than the A 2427—suggesting usage prior to 1889.

Table 6. Measurements of the *bonang panerus* A 2428	
Diameter/ height of lowest penclon	19cm / 12cm
Diameter/ height of highest penclon	17cm / 12cm

[60] Tiersot (1889), pp.39–41: 'bonang aigu'; 'contrepoint'.

Figure 14. *Ten penclon belonging to the bonang panerus A 2428, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 15. *Peking A 2429, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

***Saron peking* A 2429**

This *peking* (Figure 15) is quite in good shape, both in its *ancak*—though the paint is a bit washed out—and its *wilah*. Overall, the current tuning shows no significant deviations from *salendro* (see Table 2). The sound is clean and its resonance is long. The only noticeable restoration appears to be the addition of an orange rubber band—now already hardened—around some of the pins (*placak*), the *bantalan* still being the original twisted one. Interestingly, each key has its own resonating chamber, although in this case they have been individually carved out — unlike the rest of the *saron* family where they were assembled by adding separating walls to a common cavity. The whereabouts of the beater that should accompany this *peking* is currently unknown. However, it can be seen in one of the inventory cards (Figure 16).

As with many other instruments in the ensemble, the *wilah* are marked with numeral notation painted in white. It is unclear when this alteration was made, but it appears to have been done during the twentieth century. In his foreword to Groneman's 1890 work, *De gamělan te Jogjåkartå*, Jan Land makes no mention of numerical notation when describing how Adriaan Holle referenced degrees of the scale in the Preanger Regencies (Sunda).[61] In fact, *kepatihan* numeral notation had just begun to develop in the late nineteenth century in the courts of Central Java.[62] Thus, it seems likely that the numbering of the *wilah* occurred after the gamelan was placed in the museum—alongside other modifications—probably to serve as a guide during gamelan instruction, as noted by András Varsányi. Like the other *saron* family instruments, the numbering follows the sequence 6-1-2-3-5-6. While Sundanese modern notation would include 4 and omit 6—besides using descending numerical order—Mundt's gamelan numbering seems to align with Javanese tradition. However, the *wilah* are oddly enumerated, since

Table 7. Measurements of the *peking* A 2429			
Overall length	82cm	Length of lowest / highest key	21cm / 17.8cm
Overall height	40cm	Keybed length	31.5cm
Width at bass / treble	14cm / 13cm	Height to keybed	22.5cm

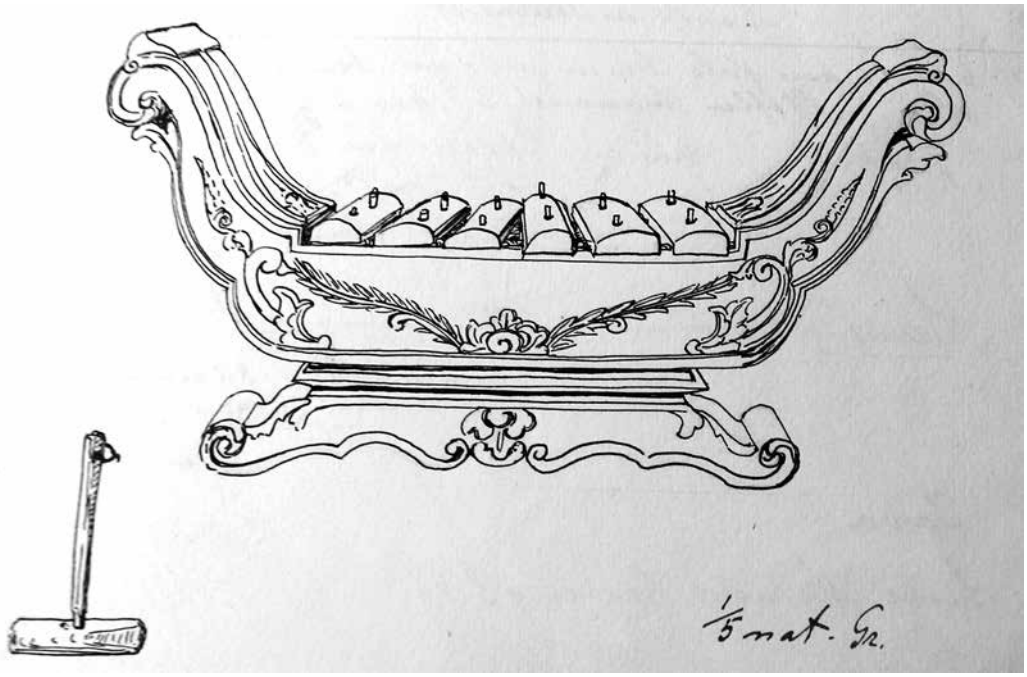

Figure 16. *Reverse of the inventory card related to the peking A 2429 and its beater, MARKK Archive. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

[61] Isaac Groneman, *De gamělan te Jogjåkartå: Uitgegeven met eene voorrede: over onze kennis der Javaansche Muziek, door J. P N. Land* (Amsterdam: Koninklijke Academie van Wetenschappen/Johannes Müller, 1890), pp.23–24.

[62] Ki Sindoesawarno, 'Ilmu Karawitan volume 1', in Becker and Feinstein eds., *Source Readings in Javanese Gamelan and Vocal Music* (Ann Arbor: University of Michigan Press, 1987), vol.2, p.338.

modern Javanese practices would have reversed the sequence to 1-2-3-5-6-1. Regardless, the lowest key of the instruments of the *saron*-family corresponds to the Sundanese pitch *singgul*.[63]

Figure 17. *Peking A 2430 (centre) along with demung A 2435 (bottom) and saron 2432 (top), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 18. *Saron A 2431, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

[63] We use Sundanese terms to refer to the pitches that, from low to high are *singgul*, *bem*, *panelu*, *loloran,* and *barang*. However, for practical reasons, we think of the *wilah* and *penclon* as arranged from left to right—in which the starting point is the lowest—contrary to Sundanese conventions, in which the highest pitch is considered the first.

Table 8. Measurements of the *peking* A 2430			
Overall length	80.5cm	Length of lowest / highest key	21cm / 18cm
Overall height	38.5cm	Keybed length	31cm
Width at bass / treble	15cm / 12cm	Height to keybed	22.5cm

Saron peking A 2430

This second *peking* (Figure 17 and Table 8) has suffered significantly more deterioration. The case is cracked; it displays various types of *placak*—many of which are tilted or too short—and the old twisted *bantalan* looks notably worn, thus keys do not resonate properly. Remnants of an additional type of *bantalan*, made of violet textile fibre, are wrapped around some of the *placak* (Figure 8). Despite showing all these signs of intense use, there is no record of such a high-register bronze-keyed instrument being played in 1889. The only instrument of the *saron* family transcribed by Tiersot shows a lower register and it was referred to by him as *saron-barong*.[64]

As discussed earlier, the keys are incorrectly arranged. The first key (which shows higher pitch than the second) should be place as the highest of the *saron* A 2431. Subsequently, the remaining keys would need to shift one position to the left, leaving the highest spot empty (Figure 9). After this adjustment, this *peking* A 2430 would exhibit pitches mostly similar to the first five keys of the *peking* A 2429. However, this relocation is not feasible since, in order to accommodate the keys in their current arrangement, some *placak* were repositioned — causing cracks in the wood.

Saron A 2431

This mid-register *saron* (Figure 18 and Table 9) features a different shape in the basement of its case, along with a slightly varied decoration on its front side. As discussed above, upon initial inspection, the keyboard appeared disorganized, comprising keys of various types and sizes. Following the virtual repositioning process (Figure 9), its two lowest keys would need to be transferred to the first and second positions of the *demung* A 2434. Concurrently, the keys in the fifth and sixth positions of the *demung* 2434 would have to move to the second and third of this *saron* A 2431. Its own third key should then occupy the first position. Since the *placak* were themselves repositioned, the third key no longer fits in the first place. Yet the previous marks in the wood indeed align perfectly with the two orifices of the key.

The virtual adjustment results in a more logical sequence of pitches, although the overall tuning still exhibits a slight aberration: the fifth key (*barang*) is a bit higher, causing the interval between this key and the following one (*singgul alit*) to be somewhat small, creating the impression of an unusual *pelog*-like ending (see Tables 1 and 2).

Table 9. Measurements of the *saron* A 2431			
Overall length	100cm	Length of lowest / highest key	31cm / 21cm
Overall height	38cm	Keybed length	44cm
Width at bass / treble	18cm / 16cm	Height to keybed	24cm

Saron A 2432

This *saron* (Figure 19 and Table 10) features a single resonating cavity, since the separating walls have been removed. The condition of the instrument is quite acceptable—the old *bantalan* having been replaced by the braided new one—although some of the inclined *placak* are leaning on the keys, damping the sound. The tuning does not show any major irregularity. However, as previously mentioned, the pitches of the first four keys (*singgul*, *bem*, *panelu*, and *loloran*) are significantly higher than in the rest of the gamelan (see Table 1). The two highest (*barang* and *singgul alit*), which are more in accordance with the rest of the ensemble, have been lowered by scraping the central part of their undersides. This results in a remarkable 'small octave'—almost a major seventh—which is, in fact, a common procedure in gamelan tuning. Keys are not marked with the white numbering in this case.

[64] Tiersot (1889), p.40.

Figure 19. *Saron A 2432 (front) and demung A 2435 (back), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Table 10. Measurements of the *saron* A 2432			
Overall length	102cm	Length of lowest / highest key	25cm / 24cm
Overall height	40cm	Keybed length	41cm
Width at bass / treble	18cm / 16cm	Height to keybed	22cm

Figure 20. *Saron A 2433 (centre), along with demung A 2434 (bottom) and peking A 2429 (top), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Table 11. Measurements of the *saron* A 2433			
Overall length	105cm	Length of lowest / highest key	27cm / 22cm
Overall height	42cm	Keybed length	42cm
Width at bass / treble	15cm / 14cm	Height to keybed	24cm

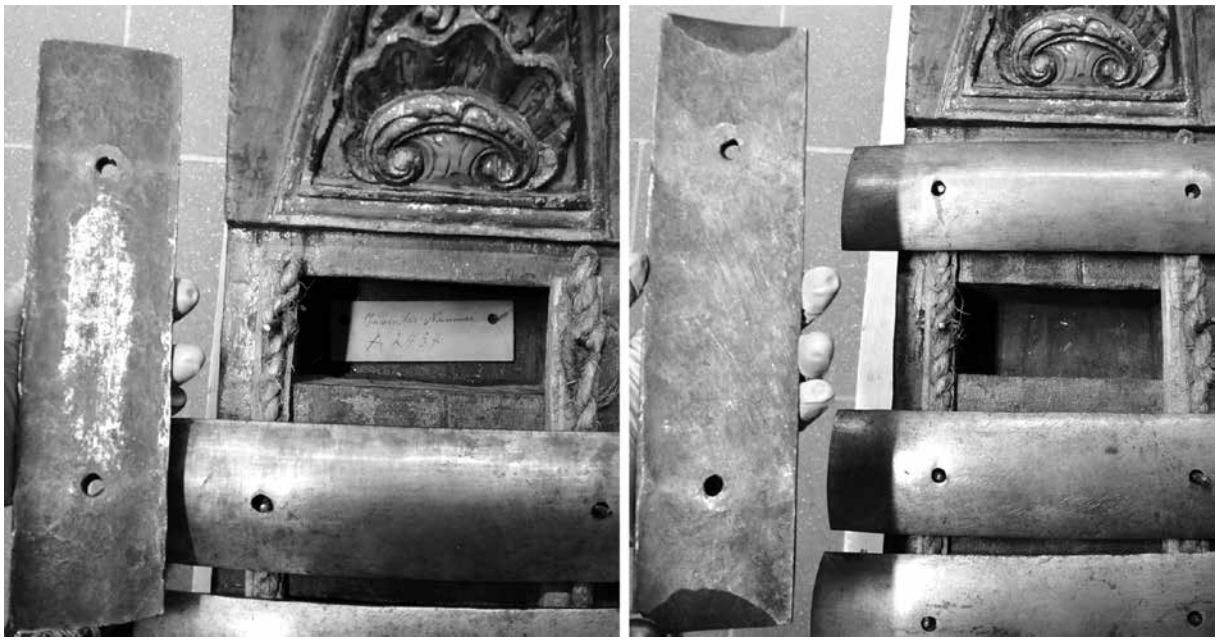

Figure 21. *Undersides of the sixth (left) and fifth (right) wilah of the demung A 2434, Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Saron A 2433

A 'big octave', also frequent in gamelan tuning, can be perfectly appreciated in this third *saron*, with the first *wilah* of the instrument having been lowered in pitch, as evidenced by the scrapes on its underside. In fact, the tuning does not deviate too much from a *salendro* scheme (see Table 2). Only the interrupted resonance of some keys, due to tilted *placak*, seems to disturb the ears. The instrument (Figure 20 and Table 11) underwent the same restoration as most of the ensemble: a new braided rope has been installed as the *bantalan*, and white numbering has been added to the keys. The *ancak*—featuring individual resonators directly carved from the wood, as in the A 2429—is in excellent shape, with most of the golden paint still remaining.

Saron demung A 2434

This low-register *saron* (Figure 20 and Table 12) was catalogued in 1889 as *gelentem*, evidently a misspelling of *selentem*. However, it is probable that even this term was also mistaken, since both nowadays and in 1889 *selentem* referred to one of the keyed-instruments that feature bamboo resonators. We are inclined to designate it as *demung*, not only because this term is current today, but also because it was the one used in the Preanger Regencies when Adriaan Holle resided there.[65]

This is another interesting instrument that exhibits numerous manipulations. As previously discussed, keys were interchanged with the A 2431. If they were to be relocated (Figure 9), the overall tuning becomes recognizable as a quite acceptable *salendro* one. The undersides of fifth and sixth keys (which should be placed in the A 2431) have been filed on the edges (to raise the pitch) and in the middle section (to lower it), respectively (Figure 21). The instrument features individual resonators, two different kinds of *placak*, and two types of *bantalan*: the old twisted one atop another made of a vegetable fibre (Figure 22 in the colour section). The *ancak* has endured several hard blows; nonetheless, the instrument is remarkably well preserved.

Table 12. Measurements of the *demung* A 2434			
Overall length	108cm	Length of lowest / highest key	29cm / 25cm
Overall height	42cm	Keybed length	50cm
Width at bass / treble	21cm / 19cm	Height to keybed	24cm

[65] Groneman (1890), p.35.

Table 13. Measurements of the *demung* A 2435			
Overall length	107cm	Length of lowest / highest key	31cm / 27cm
Overall height	42cm	Keybed length	50cm
Width at bass / treble	17.5cm / 19cm	Height to keybed	26cm

Saron demung A 2435

This second *demung* (registered as *golontem* in 1889) stands out for its dissimilar appearance (Figures 17 and 19, and Table 13). Like its counterpart, the A 2434, it still features the old *bantalan* mounted over another one of vegetable fibre. However, the *ancak* looks much darker, since the red and golden paint has been completely washed out from the upper parts of both *gelung*, which now appear entirely brown. It shows signs of impact, which were already recorded on its corresponding inventory card. Moreover, keys are covered by a black patina. The separating walls have been removed, revealing a single resonating chamber.

Besides showing a higher overall tuning—especially for *panelu*, *loloran*, *barang*, and *singgul alit*—the intervals within its resulting scale also deviate from the *salendro* scheme (see Tables 1 and 2). As Pak Panggiyo chuckled, following each note of this *demung*, he remarked, 'Kelepas dari *slendro*!' ('It's slipped out of *slendro*!').[66] Like the *saron* A 2432, which also deviates significantly from the ensemble, it lacks the white numbering on its keys.

Gambang gangsa A 2436

The term *scloecat* in the original cataloguing—a wrong spelling for *seloekat*—refers to a bronze-keyed instrument more often known as *gambang gangsa* (Figure 23 in the colour section). There are no records of such an instrument being used in the daily performances at the *kampong javanais*. However, its current condition is quite deteriorated, having undergone numerous restorations. This further supports the idea that Mundt's gamelan was intensively used prior to the Paris exhibition.

The *seloekat* or *gambang gangsa* is an instrument absent in modern gamelan, with its traditional technique remaining largely unknown.[67] It is only present in archaic ensembles such as the ceremonial *kodok ngorek*,[68] where it is played with two mallets featuring long handles and spherical wooden heads.[69] Interestingly, the inventory card depicts a single loud-style hammer similar to those used for playing other *saron*-family instruments (Figure 24a). In fact, Sundanese people seem to have made use of two of this type of hammers for playing the *gambang gangsa*, as revealed in a photograph of a gamelan *rèntèng* in Bandung dating from the early twentieth century.[70]

Featuring a common resonator cavity, Mundt's *gambang gangsa* has 16 *wilah*, 13 of which are made of bronze and marked with numbers in white paint. The original highest three are currently missing and have been replaced by wooden ones. It also includes various kinds of *bantalan*: on the player's side, where the *wilah* have locating holes, the *bantalan* has been replaced with new braided rope; on the opposite side, where pegs serve as bumping posts between *wilah*, the old and worn twisted rope is still present. The same orange rubber band used in the *peking* A 2429 has been wound around the pegs in the middle register of the instrument to prevent direct contact with the *wilah* (Figure 24b). The result is quite successful indeed: where pegs lack the rubber—mostly in the low register—*wilah* are acoustically dead.

Table 14. Measurements of the *gambang gangsa* A 2436			
Overall length	165cm	Length of lowest / highest key	35cm / 21cm
Overall height	50cm	Keybed length	104cm
Width at bass / treble	21cm / 15cm	Height to keybed	29cm

[66] Personal communication (6 March 2024) in Wirun (Surakarta). Pak Panggiyo is the son and successor of the legendary *panji* (gongsmith) Reksowiguna.

[67] Suyono, *Cengkok Gambangan Wasitodiningrat* (Yogyakarta: Yayasan untuk Indonesia, 2000), p.7.

[68] Richard Pickvance, *A Gamelan Manual: A Player's Guide to the Central Javanese Gamelan* (London: Jaman Mas Books, 2005), p.135; Vetter (2001), p.44; and Kunst (1973), p.171.

[69] Yohanes Mardimin, *Belajar Karawitan Dasar* (Semarang: Satya Wacana, 1991), p.28; Kunst (1973), p.165.

[70] Kunst (1973), p.452.

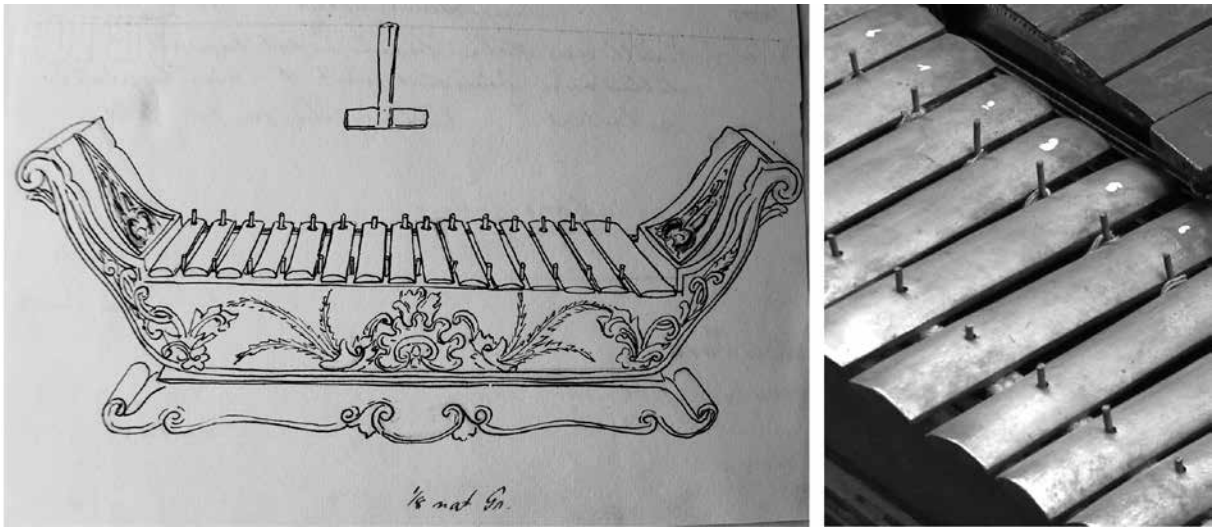

Figure 24a (left): *reverse of the inventory card related to the gambang gangsa A 2436 and its beater, MARKK Archive*; 24b (right): *detail of the keys showing pegs wound with rubber band, Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

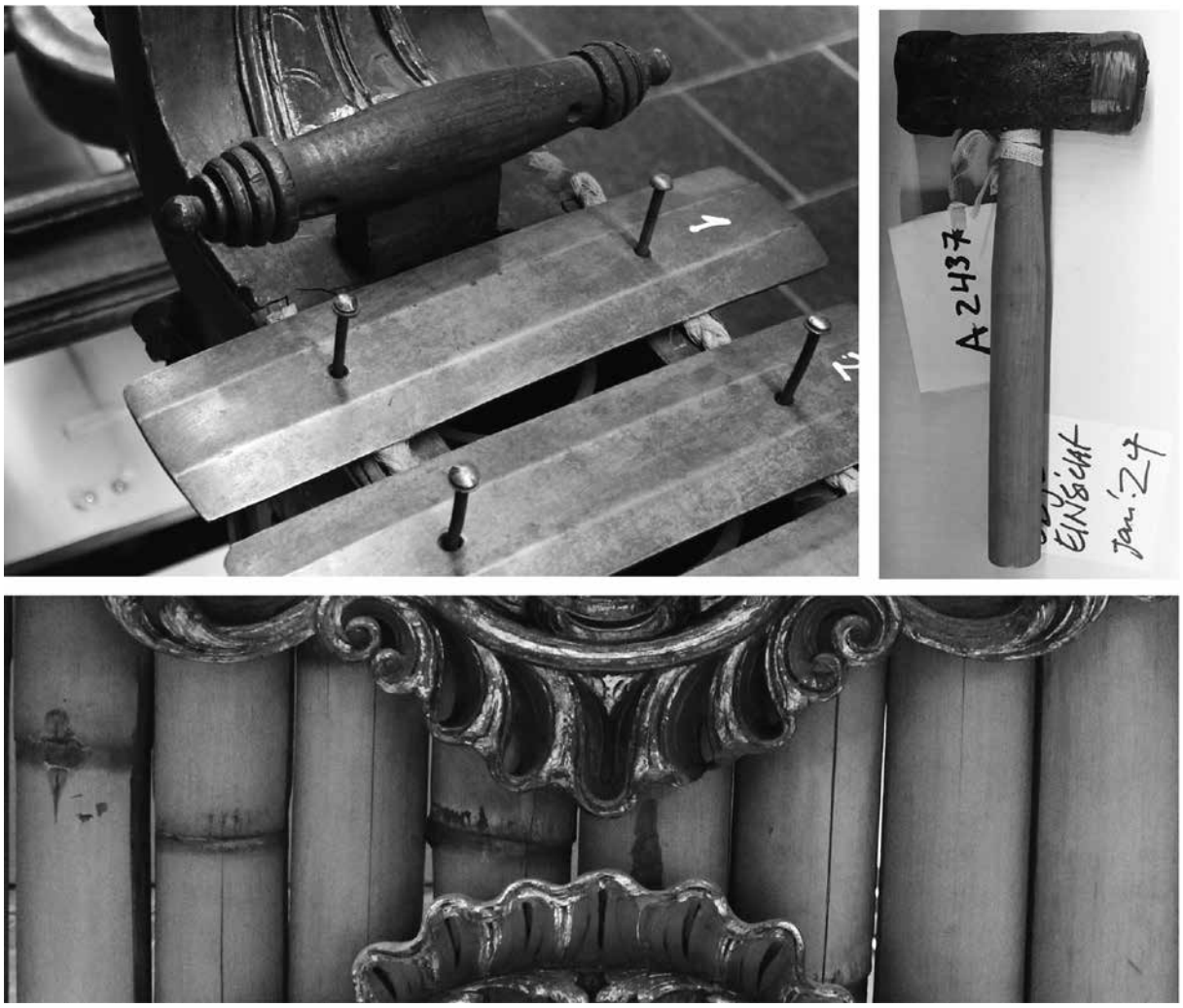

Figure 26a (top left): *dhendha section and two pierced wilah of the gender A 2437*; 26b (top right): *beater*; 26c (bottom): *detail of a few of the cracked resonators, Mundt collection. MARKK. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Table 15. Measurements of the *gender* A 2437			
Overall length	136cm	Length of lowest / highest key	28cm / 21cm
Overall height	79cm	Keybed length	85cm
Width at bass / treble	15.5cm / 14cm	Height to keybed	62cm

Gender A 2437

It is difficult to determine whether this peculiar *gender* (Figure 26 and Table 15) was on the stage in 1889. At the end of June, *Le Mostaganemois* mentioned a *gauder* [sic], describing it as 'un bizarre instrument de bambou'.[71] However, Julien Tiersot—who in his publication of 6 July 1889 recounted and described each instrument on the stage, transcribing their parts and explaining their functions—does not refer to any instrument with such a peculiar feature as bamboo resonators.[72] The only keyed instruments he described were one *saron* and a 'wooden' *gambang*.

Probably indicating a leading role within the ensemble, the instrument features very special decoration (Figure 25 in the colour section). Two unique figures predominate on its front side: the *surya majapahit* (an eight-pointed star emblem of the Majapahit kingdom) and the *padmamula* (a recipient-like shape, symbolizing the primordial source of life).[73] It is the tallest among the keyed-instruments of Mundt's gamelan. This height and shape are indeed rare in current Javanese *gender*, but a very similar instrument appears in a nineteenth-century photograph of a gamelan belonging to the Regent of Bandung.[74]

This *gender* has ten *blimbingan*-shaped *wilah* spanning two octaves, numbered starting from 1 (although according to Javanese tradition, the first *wilah* should be numbered as 2). One notable feature, observed by Prof. Sumarsam, is that the *wilah* no longer hang from a cord (*pluntur*); instead, they rest on a new braided rope and are pierced by *placak*, like the rest of the keyed instruments in this ensemble.[75] The instrument still retains its removable end finials (*dhendha*), originally used for cord anchoring. However, the *sanggan*—pieces that once supported the cord—have been removed since they are no longer needed (Figure 26a). The slits where the *sanggan* were attached to the wooden frame can still be seen underneath the braided rope.

This modification raises questions about whether the instrument, once altered, could still be used in the usual manner. A *gender* with nailed keys would likely make it difficult to play with a *bendha* mallet in each hand, let alone damping they keys with the wrists, as pointed out by Roger Vetter.[76] Surprisingly, the individual beater that is associated with this instrument—which in itself underwent another modification, namely, the adding of tape to one end—bears no resemblance to traditional *gender* mallets.[77] But this kind of beater, in fact, would have allowed the instrument to be played, albeit using a different technique (Figure 26b).

On the other hand, Mundt's *gender* no longer sounds satisfactory since the resonating tubes (*bumbungan*)—made of thin-walled bamboo—are cracked (Figure 26c). Furthermore, some of the keys themselves are acoustically inert. Thus, the modification from hanging to nailed keys could have been implemented as a solution for the cracked bamboo, requiring the keys to be struck with a harder mallet, but positively resulting in a louder sound. As well, it could have been a straightforward solution to the absence of a suspension cord. In any case, the insertion of the nails took place after the installation of the new *bantalan*, which many of the instruments of the ensemble also underwent.

[71] 'L'Exposition de 1889. Le Kampong Javanais', *Le Mostaganemois* (29 June 1889), p.1.

[72] Tiersot (1889), p.32.

[73] We would like to thank Pak Joko Daryanto for identifying the *surya majapahit* (Surakarta, 26 August 2024) and for generously sharing his knowledge about gamelan. Regarding the *padmamula*, see 'Detail van de versiering van een fries aan de basement van de Ciwa tempel te Tjandi Prambanan nabij Jogjakarta', KITLV 111316. The *Slendro Gender barung* (TM–500–3a) belonging to the Tropen Museum Collection also features this figure on its front side.

[74] 'Gamelang van den regent Bandoeng', KITLV 1400359.

[75] Personal communication (3 March 2024) in Surakarta. We sincerely thank Pak Sumarsam for sharing his time and engaging in thoughtful conversations about Mundt's gamelan and the 1889 performances.

[76] E-mail communication (18 April 2024). Thanks to Roger Vetter for all his insights and kindness.

[77] The aforementioned photograph 'Gamelang van den regent Bandoeng' (KITLV 1400359) does not clearly show what kind of mallets the player was holding, but they appear to be *bendha* ones.

Figure 27. *Gambang A 2438 (front) and gambang gangsa A 2436 (back), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Gambang A 2438

The 15 keys of the *gambang* (Figure 27 and Table 16), made of *merbau* wood, show clear wear patterns, particularly in the middle register (see Figure 25 in the colour section). Interestingly, although tuned in *salendro*, it features an uncommon interval of almost a perfect fourth between the ninth and the tenth keys (see Tables 1 and 2). An explanation for this could be that the tenth key—which would have been tuned between 540Hz and 560Hz—is missing. Thus, the subsequent keys were relocated by shifting one position to the left. Moreover, the last two keys do not match the shape of the previous ones—being noticeably shorter and thinner—although their tuning does align with the *salendro* scheme. Only one of its two mallets remains at the MARKK. No doubt that this instrument has had a vigorous life, as its broken case also suggests.

Although never depicted in the iconography of 1889, the *gambang* was one of the instruments more often mentioned in sources related to the *Exposition Universelle*.[78] Tiersot's transcriptions reveal that the *gambang* played simple, spaced-out octaves on the off-beats, in sharp contrast with the fast figurations typically performed on this instrument, both today and in those years.[79]

Table 16. Measurements of the *gambang* A 2438			
Overall length	172cm	Length of lowest / highest key	60cm / 29cm
Overall height	55cm	Keybed length	100cm
Width at bass / treble	30cm / 24cm	Height to keybed	32m

[78] See, for instance, 'Chronique de l'Exposition' (1889), p.679; Fourcaud (1889), p.112; and Tiersot (1889), p.32.

[79] Tiersot (1889), p.40. On the role and technique of the *gambang* in the late nineteenth century see Léon Pillaut, 'La musique exotique', *Journal Officiel de la République Française* (14 November 1889), pp.5663–66, at p.5665.

Figure 28a (left): *kenong A 2439*; 28b (right): *padded beater A 2430F, Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Table 17. Measurements of the *kenong* A 2439			
Side of the ancak	61cm	Diameter of the penclon	40cm
Height of the ancak	58cm	Height of the penclon	30cm

Kenong A 2439

There is no evidence of a *kenong* being used during the 1889 *Exposition Universelle*. The *ancak* of the instrument, an individual four-sided box, is made of assembled thick wood panels (Figure 28a). The suspension cord (*pluntur*) is made of rattan, of the same kind as the one used for suspending the *penclon* of the *bonang*. The cord is deteriorated and loosened, causing the *penclon* to topple over. The *penclon* itself has been polished on its *pencu* (boss), *rai* (flat collar), and *recep* (slopping collar) sections, although still showing clear hammering marks. Its underside shows a small crack filled with a dark oily substance, resulting in a buzzing sound when the instrument is played. It is tuned to the pitch *loloran*.

If we are to trust the inventory card (Figure 1 in the colour section), this *kenong* would be accompanied by a padded beater in the same fashion as that of the gong—albeit of smaller dimensions (Figure 28b)—later erroneously associated with the *peking* A 2430.

Kendang A 2442

The *kendang* (Figure 29 and Table 18), of the *dogdog* type, is made from coconut tree wood. It lacks any carvings on the shell and features rattan ropes instead of the leather laces typically seen in Javanese *kendang* (Figure 29a). Its materials, size, and frustoconical shape suggest either a Sundanese or Cirebonese origin, with the latter possibility further supported by the now-missing stick visible on its corresponding card (Figure 30).[80] The drawing also depicts, in a vivid way, the poor condition of the ropes. They are ripped

Table 18. Measurements of the *kendang* A 2442			
Length of the shell	63cm	Head diameter at large / small end	40cm / 31cm

[80] We warmly thank Mas Sigit Siklun for his insights on the *kendang* (Surakarta, 6 September 2024) and on gamelan in the past on the island of Java.

Figure 29a (left): *shell of the kendang A 2442*; 29b (right): *head of the kendang A 2442, Mundt collection. Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

at several points, suggesting that they were often tensioned for being played. The grime on the head, which is indeed broken, further supports the idea that it was frequently rubbed (Figure 29b).

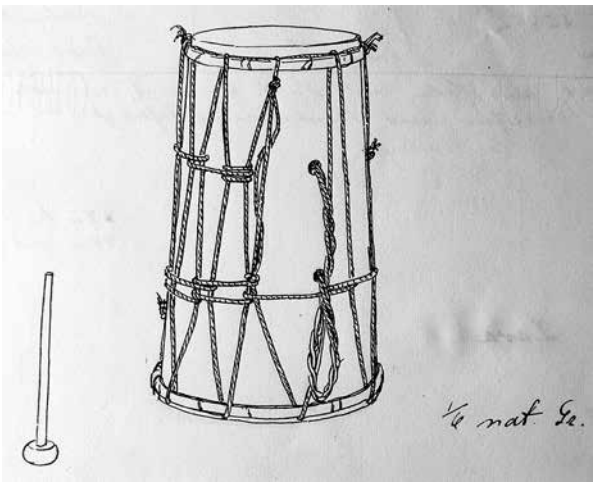

Figure 30. *Reverse of the inventory card related to the kendang A 2442 and its stick. MARKK Archive. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

The importance of the *kendang* was often highlighted by the spectators in 1889. During the evenings at the *kampong javanais*, it played alongside the *kecrek*—which was not part of Mundt's donation—and it was responsible for the polyrhythms so often praised by listeners.[81]

This *kendang* is clearly recognizable in contemporary illustrations that depict the musicians on stage (Figure 5). It is not the same as the one photographed with the travelling *angklung* orchestra;[82] there is no trace of this smaller, portable drum in Hamburg, nor does it appear to be mentioned in any catalogue.

Bedhug A 2443

The iconography of 1889 does not show any drum like this, although it is true that Tiersot speaks of different drums 'tuned in the manner of timpani'.[83] This double-headed drum (Figure 31 and Table 19), merely recorded as *kleine Trommel* in the original catalogue, seems to be a *bedhug*, albeit of small size. Like other *bedhug*, both heads are pegged to the

Table 19. Measurements of the *bedhug* A 2443			
Length of the shell	21cm	Diameter of the head	25cm

[81] Tiersot (1889), p.38; see also Claude Debussy, 'Du goût', *Revue Musical S.I.M.* 15 (February 1913), pp.47–49, at p.48.

[82] See the *angklung* orchestra and the smaller drum in 'Angkloengspelers in de kampong op de Exposition Universelle te Parijs', KITLV 158122. We are grateful to Kang Budi Gandamanah for his insights on the *kendhang* and processional musics in Sunda (Sumedang, March 2024).

[83] Tiersot (1889), p.32: 'également accordés a la manière des timbales'.

Figure 31. *Bedhug A 2443, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

shell, not allowing for tuning adjustments. It was intended to be played with a stick—no longer present within the collection—of the same type of that for the *kendang*, as depicted in its corresponding card.

MISSING AND EXTRA INSTRUMENTS, AND A LAST RIDDLE: THE SET OF KEMPUL IN 1889

In addition to the many instruments now preserved in its storage, the MARKK also housed some whose current whereabouts are unknown. Among them is the *rebab* (A 2441, see Figure 6), which so much perplexed listeners with the intervals of the Sundanese *madenda* scale.[84] Two other instruments catalogued at the time are also missing today: one *kempul* (A 2425) and one *angklung* (A 2440).

In Hamburg, on the other hand, there are at least two instruments that, although preserved alongside the Mundt collection, were surely not part of that same legacy. In fact, they are devoid of a corresponding code, besides not being registered in the first cataloguing. The first is a *celempung* (SOAS 75.1:1), which features a decoration that, despite the chromatic similarity, is not coherent with the aesthetic design of the other cases. An inscription in Javanese *hanacaraka* on its surface reads 'Kyai Panglipu', undoubtedly the name of the gamelan to which this *celempung* belonged.[85] The instrument might be part of a more recent ensemble as its physical condition suggests. The second is a Javanese drum, likely a *ciblon* or a *batangan* (SOAS 82.88), which also appears to originate from a later period. Despite marks on both the shell and laces, the drumhead is in much better condition than that of the *kendang* A 2442.

Another intriguing question arises upon examining Mundt's gamelan: where are the *'gongs* of various species and all dimensions' described by Julien Tiersot and depicted in one of the famous gravures (Figure 32a) of 1889?[86] The absence of any similar item recorded in the MARKK's catalogue, together with the striking resemblance between the set of five *kempul* as portrayed by Parisian illustrators and the one starring at the 1883 Exhibition in Amsterdam (Figure 32b), led us to a new and compelling solution to the riddle: they might have been borrowed for the occasion from the Rijks Ethnographisch Museum in Leiden.

This was soon confirmed during a visit to the storehouse of what is now the Wereldmuseum (Figure 33).[87] Then we were also able to corroborate an additional suspicion: another collection owned by the same institution corresponds to the costumes worn by the Javanese dancers in 1889, provided by Mangkunegara V.[88] It is likely that these items travelled from Paris to Leiden after the exhibition, along with the return of the set of five *kempul*. This set has, in fact, a long history of travels across Europe. In addition to its appearance at the Amsterdam exhibition in 1883, it had also been showcased at the previous Paris exhibition in 1878.[89]

[84] See our forthcoming article, 'Sundanese Reverberances'.

[85] We want to thank Dr Ibu Darweni for this information and for always welcoming us warmly at the Perpustakaan Rekso Pustoko, Pura Mangkunegaran (Surakarta).

[86] Tiersot (1889), p.32: '*gongs* de diverses espèces et de toutes dimensions'.

[87] Our sincere thanks to Harm J. Linsen for his invaluable assistance at the depot of the Wereldmuseum (6 May 2024).

[88] The costumes not only match those in the 1889 Roger-Viollet photos, but also correspond to the *wayang* costumes listed in a text from the Arsip Rekso Pustoko, Pura Mangkunegaran (dated 10 October 1929) detailing the objects lent by the prince. Sincere thanks to Jean-Pierre Chazal for providing a copy of this text.

[89] Jean-Pierre Chazal, 'La musique en silence', *Archipel* 65 (2003), p.174.

Figure 32a (left): *detail of 'Les Danseuses du Kampong Javanais à l'Esplanade des Invalides' showing the kempul in 1889. Huard, Livre d'or de l'exposition, after 183*; 32b (right): *detail of 'Gamelan orkest' (RV–A52–1–56), showing the same set during the 1883 exhibition.*

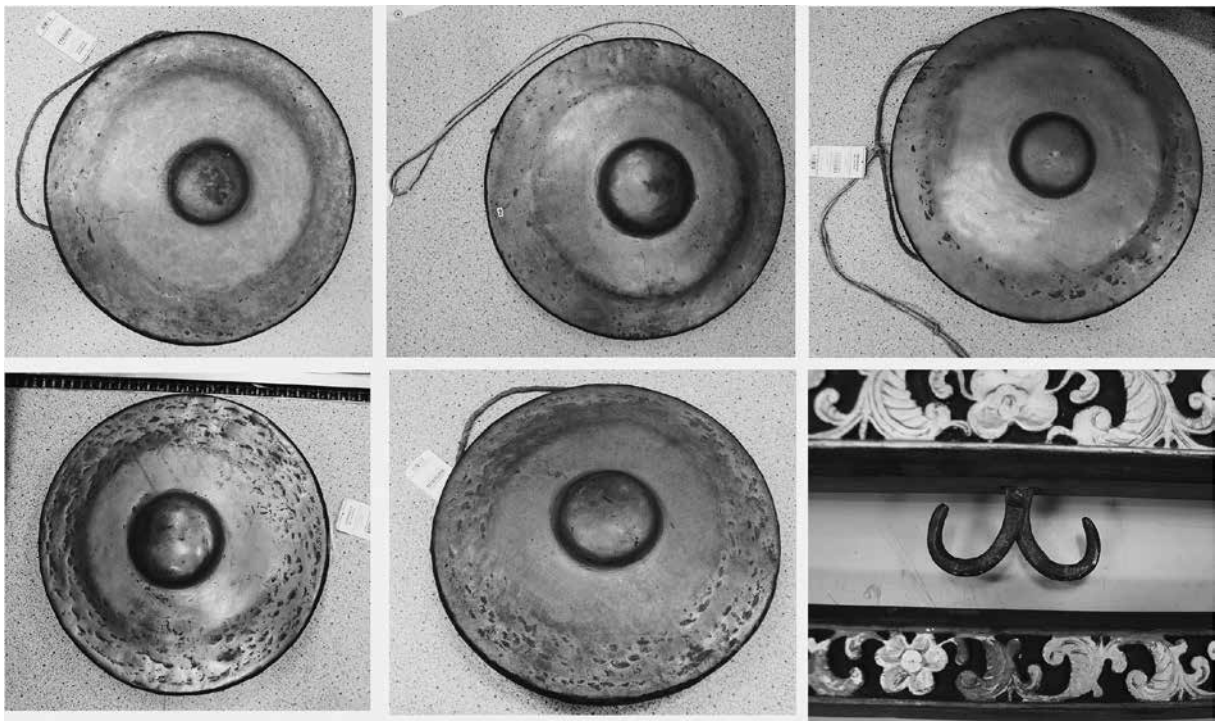

Figure 33. *The set of kempul used in Paris in 1889 and a detail of its gong rack , Collection Wereldmuseum Coll.nr. RV–300–557 and RV–300–556. Photos by the authors, with permission of Wereldmuseum.*

SOME FINAL REMARKS

The discovery of Gustav Mundt's gamelan is significant for many reasons. It undoubtedly expands on the understanding of the musical dimension of the 1889 *kampong javanais*' spectacles. But it also offers new stimuli for debates linked to the colonial relationship between Java and Europe, the logistics of the exhibitions, the role of performing arts in the dynamics of power at the time, and the global impact of individual decisions, as was the case with Mundt.

Future studies could provide us with deeper knowledge of the figure of Mundt and his *milieu*. Moreover, behind him is the city of Hamburg, which—despite its longstanding role as a commercial and cultural hub—has never received much attention in gamelan research. At a time when we are profoundly rethinking the reciprocal influences that have shaped the contemporary world, any new piece can enrich the entire board.

Among the European staff who conceived and organized the 1889 exhibits, commercial interests took precedence over any ethnographic or artistic whims. This was also true for Mundt, as Dutch sources reveal: it was mostly a perfect move for him to open a market in Europe, besides allowing free delivery of the gamelan to his hometown. Yet the reality of that gamelan tells us about a more significant and representative instrument of the Dutch Indies' performing arts than the Parisian sources have suggested until now.

Further research on the physical features of the instruments, the composition of the bronze, or the age and provenance of their other constituent materials, will contribute to a deeper understanding of gamelan making and tuning in the archipelago. It will also enhance awareness of the power relationships between the colonial government, Dutch merchants and local elites in trading with local goods. It is difficult to hypothesize, for instance, how Gustav Mundt acquired the gamelan; it could be possible that he purchased it or that he inherited it from previous administrators such as Adriaan Holle. Who knows, indeed, if this ensemble was one of those 'five gamelans from Parakan Salak' as it has been referred to in Sundanese oral tradition.[90] What seems beyond dispute is that Mundt's gamelan was conceived as a 'functional one', as Vetter observed, and not as a museum piece, like Raffles'.[91] It is challenging to determine how many venues hosted this gamelan to liven up parties, ceremonies, or official acts. However, keeping in mind the significant role gamelan played in nineteenth-century social life in the archipelago, it would not be surprising if it was played by a vast number of musicians, while being owned by various members of the local or foreign elites.

Since December 1889—except for the 1946 exhibition and some periods when the instruments could have been used for teaching purposes—Mundt's gamelan has become a mere archival object, with little prospect of being used again. But while the past of this gamelan may warrant further study, what certainly remains unwritten is its future: the new life that awaits it now that it has been located.

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[90] Anwar Siswadi, 'Gamelan Bersejarah Sari Oneng Akan Dipamerkan', *Tempo* (6 December 2012), available online at <https://travel.tempo.co/read/446294/gamelan-bersejarah-sari-oneng-akan-dipamerkan>.

[91] E-mail communication (18 April 2024).

ÁNGELA LÓPEZ-LARA & LUCA CHIANTORE

Hidden in Hamburg: Uncovering the Long-lost Gamelan of the 1889 *Exposition Universelle*

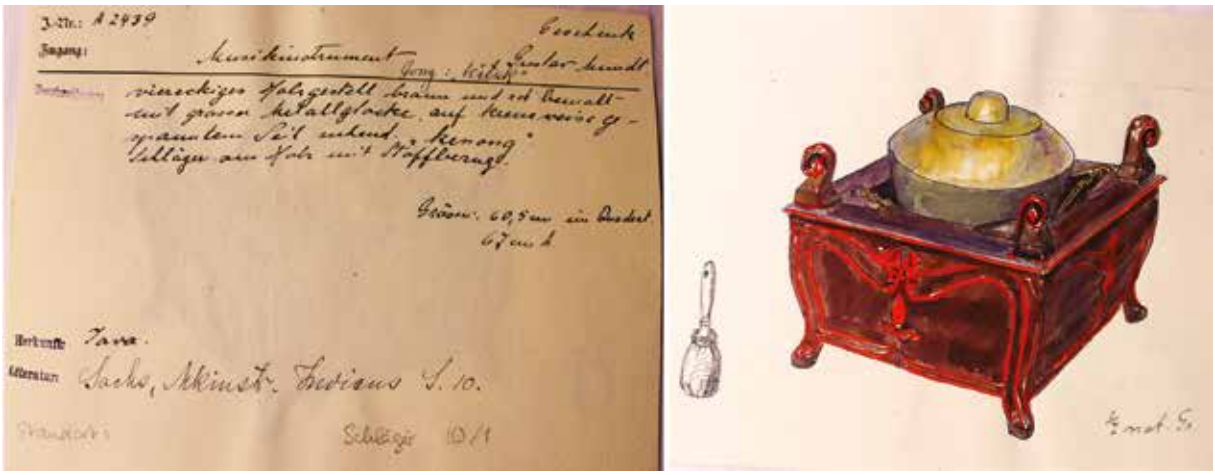

Figure 1. *Front and reverse of the inventory card related to the kenong A 2439. MARKK Archive Photos by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 13. *Bonang barung A 2427, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 22. *Individual resonators and superposed pillows in demung A 2434 (front), keyboard and ancak of saron A 2433 (centre) and peking A 2429 (back), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 23. *Gambang gangsa A 2436 (bottom) and gambang A 2438 (top), Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*

Figure 25. *Gender A 2437, Mundt collection. Photo by the authors, by courtesy of the Museum am Rothenbaum (MARKK), Hamburg.*